

# FINAL MINUTES – Forecasting Reference Group (FRG)

MEETING: #3

DATE: Wednesday 27 March 2019

CONTACT: [Energy.Forecasting@aemo.com.au](mailto:Energy.Forecasting@aemo.com.au)

## ATTENDEES:

Attendee	Company	Site
Andrew Manson	SA Government, Energy & Mining	Adelaide
James Bennet	SAPN	Adelaide
Andrew Turley	AEMO	Brisbane
Elijah Walker	AEMO	Brisbane
Justin Gardner	Ergon Retail	Brisbane
Magnus Hindsberger	AEMO	Brisbane
Tam Tran	Ergon Retail	Brisbane
Adam Ryan	CitiPower and Powercor	Melbourne
Alessio Bonato	AGL	Melbourne
Azadeh Keshavarzmohammadian	AEMO	Melbourne
Bella Pennington	AEMO	Melbourne
Ben Skinner	AEC	Melbourne
Dean Soste	AEMO	Melbourne
Greg Staib	AEMO	Melbourne
Mick Fell	Energeia	Melbourne
Richard Paprzycki	Energy Australia	Melbourne
Sujeewa Vithana	United Energy	Melbourne
Dimitri Lorenzo	Blue Waters Power	Perth
Joachim Tan	AEMO	Perth
Kwok Wai Lau	AEMO	Perth
Luke Dowling	AEMO	Perth
Sarjit Singh	AEMO	Perth
Alex Fattal	Origin	Sydney
Arindam Sen	Transgrid	Sydney
Dean Coulter	Energeia	Sydney
Eric Kotopoulos	Energeia	Sydney
Jennifer Brownie	Queensland Electricity Users Network	Sydney
John Sligar	Sligar & Associates	Sydney
Nicola Falcon	AEMO	Sydney
Nish Su	Energeia	Sydney
Tim Ryan	Ready Energy	Sydney
Adam Wong	Synergy	Teleconference
Alex St John	Climate Change Authority	Teleconference
Ali Habibi Khalaj	AEMO	Teleconference

Ben Jones	AEMO	Teleconference
Ben Smith	ATCO	Teleconference
Burcu Ulusoy	Ausgrid	Teleconference
Cath Chalmers	AEMO	Teleconference
Craig Oakeshott	AER	Teleconference
Craig Tupper	Ausgrid	Teleconference
David Headberry	Major Energy Users	Teleconference
David Xu	Origin	Teleconference
Fan Zhang	Collgar	Teleconference
Felix Kennedy	Aurora	Teleconference
Florie Fong	Energy Australia	Teleconference
Glen Thomsen	APA	Teleconference
Herath Samarakoon	TasNetworks	Teleconference
Hua Min Situ	AEMO	Teleconference
Jasmine Zheng	Deloitte	Teleconference
Joe Hemingway	Stanwell	Teleconference
Khai Chang	Energy Australia	Teleconference
Kristian Kolding	Deloitte	Teleconference
Matthew Hyde	AEMO	Teleconference
Noel Schubert	ERAWA	Teleconference
Olivia Laskowski	Siemens	Teleconference
Patricia Wang	Synergy	Teleconference
Paul Graham	CSIRO	Teleconference
Paul Grzinic	Aurora	Teleconference
Paula Welke	AEMO	Teleconference
Teresa Keddis	Origin	Teleconference

## 1. Welcome and Introductions

Andrew Turley (AEMO) welcomed attendees to the March 2019 Forecasting Reference Group (FRG) meeting.

## 2. Previous minutes and action items

The meeting minutes from the 27 February 2019 FRG were accepted by attendees and finalised. All previous action items were closed.

Ron Logan (ERM Power) asked for clarification on whether the demand outcomes that occurred in Queensland on 13 February fell within the possible range of outcomes in AEMO's forecast. Maximum demand forecasts produced by AEMO are at a 5% POE scale, and hence assessing whether a forecast is at a POE1 or POE2 level is not possible. More detail on this topic will be provided in the Forecast Accuracy Report (FAR) update.

## 3. Introduction to consultant presentations

Greg Staib (AEMO) introduced the background to the following consultant presentations, detailing the process of consultant engagement and forecast comparisons. Scenario definitions and underlying assumptions were also covered as part of the introduction.

Key points raised by stakeholders included:

- Joe Hemingway (Stanwell) raised concerns over the exclusivity of the Forecasting Reference Group (FRG) and possible conflicts of interest with regards to the Retailer Reliability Obligation (RRO) and scenario assumptions. Nicola Falcon (AEMO) clarified that the inputs and assumptions are being consulted on broadly, and the FRG is an open forum. AEMO will be as transparent as possible with regards to the assessment of the reliability standards and RRO forecasts.
- Alessio Bonato (AGL) asked what consultant was engaged to produce the wholesale pricing projections out to 2039. Greg Staib (AEMO) thanked Alessio for the question and will follow up at the next meeting regarding whether the consultant can be named (**Action 3.3.1**). Alessio also asked whether generator retirements for the retail pricing projections were consistent with the previous Integrated System Plan (ISP). Andrew Turley (AEMO) confirmed they are.
- Jennifer Brownie (QEUN) questioned if AEMO was aware of the Acil Allen electricity price report for regulated prices in regional Queensland, published 28 Feb 2019, and if AEMO's retail price projections were consistent with the Acil Allen report. Andrew Turley (AEMO) noted multiple publications were used to create the retail pricing projections.
- Tim Ryan (Ready Energy) questioned if the retail prices were further segregated into residential and business as it seemed residential prices were falling while business prices rose, simply because residents could vote. Greg Staib (AEMO) confirmed residential and

business price sensitivities are modelled separately, and further detail can be found in the Electricity Statement of Opportunities (ESOO) Methodology paper.

#### **4. Draft economic projection forecasts**

Kristian Kolding (Deloitte) presented on the economic projection forecasts, inline with the economic scenarios put forward by AEMO. Key findings and scenario outcomes were explored in detail, including the impact on the generation mix and exchange rate.

Key points raised by stakeholders included:

- Jennifer Brownie (QEUN) asked for clarification on what commodities were drivers in the commodity-driven forecasts. Kristian Kolding (Deloitte) confirmed coal and iron-ore were primary drivers for commodities, with LNG as a secondary driver.
- Craig Oakeshott (AER) asked how the projections by Deloitte aligned with the projections from the Federal treasury. Kristian Kolding (Deloitte) replied that most forecasts between Deloitte and the treasury will be similar, however there will be differences in the expected rate in pickup of wages, as Kristian contended the treasury has been notoriously optimistic.

#### **5. Draft EV, Battery and PV forecasts (CSIRO)**

Paul Graham (CSIRO) presented on the draft EV, battery and PV forecasts, produced as part of the DER consultation process.

Questions and points for this presentation were deferred until the end of the Energeia presentation.

#### **6. Draft EV, Battery and PV forecasts (Energeia)**

Mick Fell (Energeia) presented on the draft EV, battery and PV forecasts, produced as part of the DER consultation process.

Key points raised by stakeholders included:

- Tim Ryan (Ready Energy) noted that vehicle-to-grid capabilities of EVs into the future will be a significant consideration when forecasting the demand for these vehicles, with special mention to the Nissan Leaf.
- Jennifer Brownie (QEUN) raised concerns on the over-emphasis of EVs in Australia's future, with a view that hydrogen-powered vehicles and hydrogen fuel cells being particularly important for Queensland's energy future. Mick Fell (Energeia) replied that available costing data, e.g. the hydrogen roadmap, made fuel cell vehicles uneconomic for most of the forecast horizon. Paul Graham (CSIRO) argued that EV models into the

future will have interchangeable fuel capabilities and hence the underlying demand dynamics should remain the same, with the only difference fundamentally being the energy storage system (ESS) of the EV.

- Alessio Bonato (AGL) asked if there were any fundamental differences between the CSIRO 2018 and 2019 forecasts. Paul Graham (CSIRO) replied that differences were due to a refresh of assumptions and segmentation.
- Jennifer Brownie (QEUN) raised concerns over the use of the Clean Energy Regulator (CER) PV installation data, as it was argued double- and triple-counts existed in the dataset. Greg Staib (AEMO) clarified that AEMO does have internal procedures in place to avoid this issue.

## **7. Other Business**

It was noted that, due to the length of content in the FRG, not enough time was provided to adequately cover questions and queries for the consultants on their reports. As such, an additional Q&A session was committed to ([Action 3.7.1](#)).

## **8. Meeting Close**

The next FRG meeting is scheduled for Wednesday 24 April 2019, with additional Q&A session to cover the consultant reports scheduled for Friday 5 April 2019.

**Forecasting Reference Group (FRG) Action Items**

<b>Item</b>	<b>Date Raised</b>	<b>Topic</b>	<b>Action required</b>	<b>Responsible</b>	<b>By</b>	<b>Status</b>
<b>3.3.1</b>	27 March 2019	Consultant for wholesale pricing projections	Provide information on the consultant collaborated with to produce the wholesale pricing projections.	Greg Staib	24 April 2019	<b>Closed</b>
<b>3.7.1</b>	27 March 2019	Additional Q&A session	Schedule an additional meeting for open Q&A on consultant reports	AEMO	5 April 2019	<b>Closed</b>