

Forecasting Reference Group (FRG) DRAFT MINUTES

MEETING: FRG #2 2021
 DATE: Wednesday, 24 February 2021
 TIME: 2:00pm – 4:45pm AEDT
 LOCATION: Teleconference

ATTENDEES:

Name	Company	Name	Company
Ben Skinner	AEC	Alex Driscoll	Edge2020
Carol Tran	AEC	Abu Abdullah	ElectraNet
Adrian Grantham	AEMO	Matt Murphy	Electrical Trades Union of Australia
Ali Habibi Khalaj	AEMO	Candice Hincksman	Energy Queensland
Andrew Turley	AEMO	Bradley Woods	EnergyAustralia
Bella Pennington	AEMO	Patrick Gan	EnergyAustralia
Cam Potter	AEMO	Ngoc Nguyen Tho	ENET
Dane Winch	AEMO	Jason Polychronopoulos	Engie
Daniel Collins	AEMO	Kerina Heath	Ergon Energy
Daniel Guppy	AEMO	Brent Hudson	Essential Energy
Dean Soste	AEMO	Zoe Dowsett	Essential Energy
Deborah Marsh	AEMO	Mark Grenning	EUAA
Gregory Staib	AEMO	Jonathan Jorgensen	Hydro Tasmania
Joachim Tan	AEMO	John Cheong-Holdaway	Jemena
Kent Hanh	AEMO	Jack Lennon	Mackay Sugar
Leslie Lay	AEMO	David Headberry	Major Energy Users
Milton Woods	AEMO	David Havyatt	Network of Illawarra Consumers of Energy
Nicola Falcon	AEMO	Kieran Donoghue	Newgrange Consulting
Oliver Derum	AEMO	Stephanie Bashir	Nexa Advisory
Shayne D'Lima	AEMO	Angie Cheah	Nexif Energy
Siobhan Attwood	AEMO	Charles Xu	NSW DPIE
Vivian Mai	AEMO	Sharon Young	NSW DPIE
Adam Day	AER	Shira Samocha	NSW DPIE
Alex Cicchini	AER	William Nixey	NSW DPIE
Tom Ralston	AER	Sarah-Jane Derby	Origin
Chris Pratt	Alinta Energy	David Xu	Origin Energy
Chrys Chandraraj	Alinta Energy	Jeff Anderson	Powercor
Michell Nguyen	Alinta Energy	Dean Knight	Powerlink
Sam Lei	Alinta Energy	Enrique Montiel	Powerlink
Karan Sharma	APPEA	Jared Rodell	Powerlink Queensland
Ed White	Ausgrid	Jennifer Brownie	QEUN
Marc Thiebaut	Ausgrid	Phil Pollard	QEUN
Morteza Moallemi	Ausnet	Marino Bolzon	SA DEM
Nick Cimdins	AusNet Services	Elisia Reed	SA Power Networks

Matthew McCormick	BIS Oxford Economics	Emily Lauritsen	SA Power Networks
Ruchira Ray	BIS Oxford Economics	James Bennett	SA Power Networks
Sarah Hunter	BIS Oxford Economics	Ronny Garg	Secure Meters
Owen Pascoe	CEFC	Ron Logan	Shell Energy Australia
Sonja Lekovic	CitiPower	Noel Sligar	Sligar and Associates
Sam Ingram	CleanCo	Joe Hemingway	Stanwell
Paul Graham	CSIRO	Julie Morrison	TasNetworks
Rowan Gaze	DELWP	Prateek Beri	TasNetworks
Daniel Dempsey	DELWP Vic	Lulu Shao	TransGrid
Ben Ganim	DISER	Sujeewa Vithana	United Energy
Geoffrey Brett	DISER	Changlong Wang	University of Melbourne
Katie Filippello	DISER	Gavin Duffy	Vinnies
Leila Eslami	DISER		

1. Welcome and Introductions

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

- Open Actions
- Asked for feedback on the Jan 2021 minutes to be provided by 26 February 2021.
- Upcoming Workshops on:
 - Revised ISP scenarios and Draft IASR submissions Webinar on 3 March. The webinar explained the change in the central scenario to include a path towards net zero carbon emissions following consultation feedback on scenarios.
 - Subsequent submissions are open until 17 March 2021.
 - Energy Efficiency Workshop on 24 March.
- Open Formal consultations on:
 - [Electricity Demand Forecasting Methodology Consultation](#). Second stage submissions open 16 March and close 15 April 2021. (Action 5.1.2)
- Submissions to Energy.forecasting@aemo.com.au are appreciated.

2. Presentation 1 – FRG Consultations

Daniel Collins (AEMO) presented an overview of FRG consultations; their purpose, the process and the upcoming consultations on FRG agenda items.

3. Presentation 2 – Draft 2021 Macroeconomic Forecasts

Sarah Hunter (BIS Oxford Economics) presented BIS Oxford Economics' draft macroeconomic forecasts, to be used as an input in AEMO's IASR, ISP and ESOO modelling.

Key topics raised by stakeholders during this session included:

- Jennifer Brownie (QEUN): How is regional unemployment and work force participation considered and when are international borders expected to reopen?
 - Sarah Hunter (BIS OE): The central case uses current employment levels, which have generally rebounded to pre-COVID-19 levels. The roll back in government stimulus has not negatively impacted employment. However, tourism related industries are not expected to rebound until 2024, when mandatory quarantine is removed.
- Ben Skinner (AEC): Will pent up migration demand cause short term population growth to rise once international borders reopen?
 - Sarah Hunter (BIS OE): There is uncertainty about lost demand too, including international students who have chosen to study elsewhere, which have the opposite impact. Slide 21 depicts several scenarios.
- Marc Thiebaut (Ausgrid): What are the assumptions for inflation?

- Sarah Hunter (BIS OE): In the central case, short term volatility, due to large year on year increases after extremely low prices in 2020, will give way to low long term inflation due to weak wage growth.
- Michelle Nguyen (Alinta): What drives the modest recovery in Western Australia (WA)?
 - Sarah Hunter (BIS OE): WA was always expected to outperform other states over the COVID-19 period since it is less exposed to travel related industries, therefore initial forecasts were not as bleak as other states. The WA Gross State Product (GSP) projection has improved slightly due to high iron ore demand and mining sector announced projects.
- Ron Logan (Shell Energy AUS): Does BIS OE assess forecast accuracy?
 - Sarah Hunter (BIS OE): This will be included in the report.

4. Presentation 3 – Future treatment of COVID-19

Daniel Guppy (AEMO) presented AEMO's options for treating 2020 in future forecasts, given the impact of COVID-19. Based on poll results shown below, stakeholders generally prefer retaining 2020 La Niña weather characteristics for demand targets.

Poll Results:

Should we drop the 2020-21 reference year for producing traces due to COVID-19?		%	# (27)
Retain 2020-21	Expand the range of weather years but use a demand trace that may not be representative of normal demand.	48	13
Create a synthetic 2020-21	Use a prototype model to approximate trace based on weather conditions, as if COVID-19 did not occur.	41	11
Drop 2020-21	Drop unrepresentative demand trace but an important cold (La Niña) year is lost. This may be important when modelling renewable generation.	11	3

Key topics raised by stakeholders during this session included:

- Ron Logan (Shell Energy AUS): 2011 could replace 2020 as a La Niña year.
- Jennifer Brownie (QEUN): Cotton crops have not experienced the bumper harvest expected for a La Nina year. Therefore, 2020 is important for future forecasts.
- Joe Hemmingway (Stanwell): The revised day shape is important for dynamic work arrangements which may never return to pre COVID-19 shape.
- Michelle Nguyen (Alinta): Will the NEM and WEM be different?
 - AEMO: Potentially, WA was less impacted by both La Niña and COVID-19.

5. Presentation 4 – Electric Vehicle (EV) Forecasting

Paul Graham (CSIRO) presented CSIRO's forecasting methodology for EVs.

Key topics raised by stakeholders during this session included:

- Charles Xu (NSW DPIE): The high upfront cost of electric vehicles, low consumer preference and range anxiety in Australia are the most pressing issues as they seem to be far behind the world market.
 - Paul Graham (CSIRO): All lifetime costs of owning an EV are factored in. Short range EVs are cheaper, but are less popular; their place will likely be in two-car households. These issues, including consumer choice, have been considered in the methodology.
- David Havyatt (NICE): Is consumer charging behaviour incorporated?
 - Paul Graham (CSIRO): Yes, CSIRO's diversified study incorporated a range of consumer charging behaviours, including both those who plug in immediately when they get home and those who wait.
- Prateek Beri (TasNetworks): Are all cars sold post-2025 assumed to be EVs?
 - Paul Graham (CSIRO): Manufacturers are assumed to transition to only EVs gradually from 2025 to 2040 with Australia importing from the world market. There is considerable uncertainty in this regard.

- Jennifer Brownie (QEUN): EV, hydrogen and hybrid vehicle forecasts impact investment decisions. Therefore, forecast accuracy should be assessed against sales by postcode. Additionally, the proportion of company vehicles should be monitored.
 - Paul Graham (CSIRO): Currently a lack of available data makes this difficult. This is generally improving and sales are being tracked.
- Mark Grenning (EUAA): What future government policy assumptions were made?
 - Paul Graham (CSIRO): The methodology for the central scenarios only considers existing schemes including stamp duty discounts and registration rebates. Since Australia is a vehicle and technology importer, the methodology is driven more by manufacturing than the Australian market. Faster decarbonisation scenarios include more aggressive EV uptake policies.
- Ron Logan (Shell Energy AUS): Tariff reform and central control of EV charging, similar to hot water tariff schemes, should be forecast.
 - Paul Graham (CSIRO): The methodology only considers the demand side, analysing when variable tariffs become more economical for EV users. Tariff reform would more likely be implemented on the electricity supply side, including through Virtual Power Plants (VPP), to incentivise specific charging behaviour. Suggestions for future forecasts are welcome.

6. Other Business

Key topics raised by stakeholders during this session included:

- Jennifer Brownie (QEUN): A traffic-light stakeholder communication platform, informing interested consumers of the degree of strain on the electricity system, proposed by QEUN previously may reduce the need to build the NEM to withstand High Impact Low Probability (HILP) events. Will AEMO collaborate with ERCOT from Texas on this issue?
 - AEMO will wait to see any lessons learned from recent Texas blackouts.
- Ed White (Ausgrid): Any update on returning to AEMO offices for FRG meetings?
 - AEMO are gradually returning to “COVID normal” work arrangements. Stakeholders wishing to attend future sessions of the FRG in person should reach out to AEMO in advance to determine whether this would be available

7. Meeting close

The next FRG meeting is scheduled for Wednesday 31 March 2021.

Appendix A Forecasting Reference Group (FRG) Actions Items

FRG Action Items – **OPEN** (as at 18 November 2020)

Item	Date Raised	Topic	Action required	Responsible	Due	Status
5.1.2	16/3/2021	Electricity Demand Forecasting Methodology Consultation	Second stage submissions to RFG Consultation sent to energy.forecasting@aemo.com.au	Participants	15 Apr 2021	OPEN
5.1.3	27/1/2021	Engage with Energy Australia regarding Daily Gas forecasts	AEMO to reach out to Energy Australia to provide information on how available data can be used by participants for daily forecasts.	AEMO	Feb 2021	In Progress

FRG Action Items – **CLOSED** (as at 18 November 2020)

Item	Date Raised	Topic	Action required	Responsible	Details	Status
5.1.4	27/1/2021	Written Slido responses	Should AEMO continue to provide written answers to Slido questions during FRG meetings to free up time for Discussion?	Participants	Stakeholders respond well to this method	CLOSED
5.1.5	27/1/2021	Hydrogen Workshop #2	AEMO to decide whether to host a hydrogen workshop in 2021	AEMO	AEMO will not host a standalone 2021 hydrogen workshop	CLOSED