FINAL MINUTES – Forecasting and Planning Reference Group (FPRG) Gas and Electricity

MEETING: # 2

DATE: Tuesday 21 March 2017

CONTACT: Energy.Forecasting@aemo.com.au

ATTENDEES:

NAME	ORGANISATION	LOCATION
Clare Greenwood (Chair)	AEMO	Melbourne
Hayley George (Secretariat)	AEMO	Melbourne
Craig Price	AEMO	Melbourne
Canh Diep	AEMO	Melbourne
Leanna Tedesco	AEMO	Melbourne
Matthew Armitage	AEMO	Melbourne
Andrew Turley	AEMO	Brisbane
Magnus Hindsberger	AEMO	Brisbane
David Habib	AEMO	Adelaide
Craig Oakeshott	AER	Adelaide
Marino Bolzon	South Australian Government	Adelaide
Abe Abdullah	South Australian Government	Adelaide
Chris Pickford	Arrow Energy	Brisbane
Deirdre Fitzpatrick	Arrow Energy	Brisbane
Thomas Dargue	Edge Energy Services	Brisbane
Michael Pierce	AGL	Melbourne
Michael Zammit	AGL	Melbourne
Neil Gascoigne	CitiPower Powercor	Melbourne
Sujeewa Vithana	United Energy and Multinet Gas	Melbourne
Tim Jordan	Clean Energy Finance Corp	Sydney
Olivia Kember	Climate Institute	Sydney
David Moore	NSW Government	Sydney
Russell Pendlebury	Origin Energy	Sydney
John Sligar	Sligar & Associates	Sydney
Daniel Tucci	APA Group	Teleconference
Damien Dwyer	APPEA	Teleconference
Nick Cimdins	AusNet Services	Teleconference
Paul Graham	CSIRO	Teleconference
Terry Hogan	Dept. of Environment & Energy	Teleconference
Brad Harrison	ElectraNet	Teleconference
Brad Parker	ElectraNet	Teleconference
Frankie Lee	Endeavour Energy	Teleconference
Geoff Bongers	Gamma Energy Technology	Teleconference
Marion Piekutowski	Hydro Tasmania	Teleconference
David Headberry	Major Energy Users Association	Teleconference
Amjad Adil	NSW Government	Teleconference
Prasad Tadipatri	NSW Government	Teleconference
Steve Rawlins	Powerlink	Teleconference
Jonathan Dennis	Powerlink	Teleconference

Cameron McLean	Powerlink	Teleconference
Enrique Montiel	Powerlink	Teleconference
Dinesh Perera	TasNetworks	Teleconference
Herath Samarakoon	TasNetworks	Teleconference
Emma Fagan	Tesla	Teleconference
Richard Xu	TransGrid	Teleconference
Arindam Sen	TransGrid	Teleconference
Connell Bourke	Westpac	Teleconference

1. Welcome and Introductions

Clare Greenwood (Chair, AEMO) welcomed participants to the second combined Forecasting and Planning Reference Group meeting.

2. Administration (Previous meeting minutes and actions)

Previous meeting minutes from the Forecasting Planning Reference Group (FRG) were accepted without further amendments.

Updates to the action items are appended to these meeting minutes.

3. Submissions to the 2017 NTNDP Consultation & Focus for 2017

Matt Armitage (AEMO) advised that the deadline for submissions to the 2017 NTNDP consultation was 17 March 2017. AEMO has received three submissions so far, and two more are expected. Matt thanked all stakeholders that contributed to the consultation, and advised the submissions will be published on AEMO's website.

The consultation asked stakeholders what topics they see as material for AEMO to address in the 2017 modelling, and what topics should be prioritised. From the submissions, TransGrid advocated for further interconnection between regions, which is on AEMO's radar. On the topic of further interconnection, David Headberry (Major Energy Users) raised the recent announcements by state and federal governments, for example increasing the size of Snowy, and asked how to ensure the generation from Snowy 2.0 can get to the right places. Matt confirmed it as a key consideration for AEMO. David noted further that a big issue for end users is the cost of interconnection expansion, and where the jurisdictional responsibility will lie, not just for the Snowy project, but across proposals in all states.

Damien Dwyer (APPEA) agreed with this, and noted another consideration to look at in relation to interconnection expansion is the gas supply outlook for coming years. Leanna Tedesco (AEMO) agreed, and noted that gas forecasting is set for later this year and will feed into the electricity modelling. Announcements are news to AEMO too, and any considerations will be brought back to the FPRG as they are worked through, for both gas and electricity.

Michael Zammit (AGL) raised a recently published discussion paper suggesting a second cable to Tasmania, and asked if there is there a national plan for all interconnectors. Matt advised that AEMO looked into this as part of the 2016 NTNDP and provided some recommendations to show there is benefit in further investigation via a RIT-T.

David Headberry (Major Energy Users) raised that Victorian consumers were spooked by a news report that claimed if Tomago hadn't load shed earlier in the year it was possible for Victorian consumers to be involuntarily load shed, and suggests it is looked at. AEMO explained that there is a process for Victoria, and if Tomago wasn't shed there could have been a potential reserve problem in NSW, but it would not have necessarily meant that Victoria would have been involuntary load shed. David noted that this situation should not be overlooked as part of the NTNDP review process.

Matt continued with another point raised in the submissions, that growth scenarios considered in the 2016 NTNDP had a negative bias and suggested including a positive

growth scenario such as the uptake of electric vehicles. Another point raised in the submissions was the suggestion that modelling be extended to 2050, and asked the FPRG for their thoughts on the suggestion. John Sligar (Sligar & Associates) noted that the submission did not suggest any work be done until 2050, however as an industry we could start to build what 2050 'might' look like.

Michael Pierce (AGL) suggested modelling to 2050 would be near impossible to be accurate, because of unknown technology costs, driving emissions down and approaches to modelling that would make solving a model so far out very difficult.

Tim Jordan (CEFC) suggested that the emissions budget would be a good place to start for modelling out to 2050, but noted there are a number of budgets from federal to state to industry that could cause variations.

Olivia Kember (Climate Institute) strongly encouraged a longer outlook to 2050 and what the system 'could' look like, stating it will be a difficult but necessary exercise.

Craig Oakeshott (AER) reminded the FPRG to remember the purpose of NTNDP. It has particular functions as defined under the Rules, and a different approach or deliverable outcome may need to be separate from the NTNDP. Matt clarified the reason for the modelling extension proposal is to allow a more accurate analysis to investment decisions in the final years of the 20 year outlook.

Thomas Dargue (Edge Energy Services) raised that when he speaks to clients, they feel the problem is now. Currently, industry cannot guarantee secure reliable low cost energy, and there is a lack of confidence now, and consumers would like to see what is being done about that instead of what 'could' be being done in 2050.

Tim Jordan (CEFC) reiterated the CEFC's support for long term modelling as investors in the energy industry are required to consider the potential lifetime of their investment decisions last many decades. Modelling to provide some indication of the possible changes long term in the NEM can help investors assess the risks associated with long term investments. The CEFC believes the Paris agreement means greenhouse gas emissions will become a constraint that investors have to consider, and may have implications for short term planning decisions/investment opportunities.

This view was supported by the Climate Institute who have also recommended developing a longer term plan for the NEM in their submission to the Finkel review.

Matt thanked the FPRG for their discussion and suggestions, and advised that this topic will be brought back to the group as required at future meetings for further discussions.

4. Focus areas for 2017

It was agreed that this topic was sufficiently discussed during agenda item three.

5. 2017 Electricity Statement of Opportunities (ESOO)

Andrew Turley (AEMO) talked to the paper included in the meeting pack, explaining that the Electricity Statement of Opportunities (ESOO) provides the industry with technical and market data that informs the decision-making processes of market participants, new investors and jurisdictional bodies as they assess opportunities in the National Electricity Market (NEM) over a 10-year outlook period. Andrew noted that AEMO are interested in understanding the questions that the 2017 ESOO analysis could help answer, which would support stakeholders in planning to achieve secure and reliable energy supplies.

Arindam Sen (TransGrid) noted that NSW will have a larger generation shortfall following the closure of Liddell. Andrew confirmed that that this will definitely form part of the outlook to understand the timing and magnitude of the shortfall, and how it can be addressed.

Olivia Kember (Climate Institute) was interested in discussion around other potential economic decisions and how they would affect the planning. Andrew confirmed this is on

AEMO's horizon, particularly to understand the impact of renewables and responses to economic decisions, as well as to project expansion plans or decommission schedules and the impact of various policies.

Expansion and decommission plans were discussed in greater detail, with Andrew explaining that AEMO look at the potential for retirements to be driven by policies, for example the VRET. Craig Oakeshott (AER) asked if AEMO has considered creating a criteria for generation retirement similar to the criteria used for generator commitment, as it would be useful for participants to understand the requirements, which AEMO noted for future consideration.

Prasad Tadipatri (NSW Government) confirmed that the contribution of renewables on peak demand, particularly large scale battery storage, will change over time, and questioned if AEMO only consider committed policy and economic decisions, which is correct, however AEMO acknowledges it must look at the appropriateness of considering other announcements, particularly SA and TAS related announcements.

Michael Pierce (AGL) noted that the ESOO is only a reliability model, and therefore is not going to solve any other problems, as it does not consider a financially sound model, explaining that even if the ESOO could supply the physical demand, it may not be able to be hedged. While Michael is not sure if the ESOO should raise difficulties to hedge for load, he noted the difficulties will become apparent in 5-10 years.

Clare Greenwood (AEMO) confirmed that this item will be brought back to the April meeting, for further discussions and feedback. (Action Item 2.5.1).

6. 2017 Gas Statement of Opportunities (GSOO)

David Habib (AEMO) noted the recently published 2017 Gas Statement of Opportunities (GSOO), which reports on the adequacy of eastern and south-eastern Australian gas markets to meet and supply the maximum demand and annual consumption of gas from the 2016 National Gas Forecasting Report, and gave the presentation included in the meeting pack to facilitate discussion on the key messages from the 2017 GSOO.

David noted the main messages of the report, namely that declining gas production may result in insufficient gas to meet projected GPG demand for supply of electricity from summer 2018–19. David confirmed that the forecast gas constraints were run through AEMO's electricity model to determine forecast electricity supply shortfalls.

Damien Dwyer (APPEA) questioned the importance of the assumption that it is the domestic market that 'balances' and the LNG market that is 'supplied'. David agreed that this is absolutely important, although it is challenging and may not play out exactly as modelled, however the LNG spot prices are already affecting consumer behaviours. Damien also noted that there are already supplies into the domestic market from LNG supplies, and David confirmed that AEMO has taken contractual obligations from the LNG supplies to the domestic market into account.

Deirdre Fitzpatrick (Arrow Energy) asked if regasification plants were taken into consideration, with David advising they were not as regasification plants were not in scope for the report. Deirdre also raised international influences and if they were taken into account for the report. David noted that while they were not this time, AEMO agrees this needs an increased focus in future reports. Deirdre then asked if AEMO had undertaken analysis on physical constraints, as well as the cost of transportation, which David confirmed was part of AEMO's modelling.

Clare Greenwood (AEMO) advised that the agenda item had run over time so no further questions were able to be asked during the meeting, however welcomed further questions to be emailed to Energy.Forecasting@aemo.com.au, and confirmed this item will be carried-over to the next meeting agenda to facilitate further discussion. (Action Item 2.6.1).

7. Other Business

No other business items were raised.

8. Forward Plan

The 2017 forward plan was noted as circulated as per agenda item 11.4.1.

9. Meeting Close

The next FPRG meeting will be held on Tuesday 18 April 2017.

Forecasting Reference Group (FRG) Electricity Actions Items

Item	Date Raised	Topic	Action required	Responsible	By	Status
2.5.1	21-Mar-17	2017 ESOO	Set this as an agenda item for the April meeting, for further discussion.	Clare Greenwood (AEMO)	18-Apr-17	In Progress
2.6.1	21-Mar-17	2017 GSOO	Set this as an agenda item for the April meeting, for further discussion.	Clare Greenwood (AEMO)	18-Apr-17	In Progress
1.3.1	21-Feb-17	FPRG draft Terms of Reference and draft 2017 Forward plan	Stakeholders to review Terms of Reference and Forward plan and provide feedback.	ALL	21-Mar-17	Completed
1.4.1	21-Feb-17	Feedback on the 2016 National Gas Forecasting Report	Resolve with Prasad Tadipatri the differences between the STTM and NGFR flows/supply estimates.	Craig Price (AEMO)	21-Mar-17	Completed
1.4.2	21-Feb-17	Feedback on the 2016 National Gas Forecasting Report	Discuss available data on the dynamic interface with Nick Cimdins.	Magnus Hindsberger (AEMO)	21-Mar-17	Completed
1.6.1	21-Feb-17	National Transmission Network Development Plan Consultation	Circulate an email to the group requesting their permission for contact details to be shared with the NTNDP group.	Clare Greenwood (AEMO)	21-Mar-17	In Progress
12.6.2 (FRG)	21-Feb-17	National Transmission Network Development Plan Consultation	Circulate an email to gauge interest for a separate discussion on NSCAS. *Note: This has been postponed until further notice.*	Matt Armitage (AEMO)	21-Mar-17	Completed
11.3.3 (FRG)	24-Jan-17	2017 Forecasting and Planning Publications	Stakeholders to review the Interactive Map (and the associated user guide) and provide feedback.	ALL	21-Mar-17	Completed

11.4.1 (FRG)	24-Jan-17	Forecasting Reference Group for 2017	A forward plan reflecting the new forum format to be developed and circulated to participants.	AEMO	21-Feb-17	Completed
8.4.1	27-Sep-16	Modelling Future Weather	Luke Russell (AusNet Services) to investigate their metering data during heat waves and provide information on indications of such systems tripping.	Luke Russell (AusNet Services)	On-going	In progress – work to be presented at a future FRG – timing TBC