

Minutes – NTNDP Workshop

MEETING: **Consultation for the 2016 National Transmission Network Development Plan (NTNDP)**

DATE: 25 February 2016

TIME: 12:30pm – 03:00pm AEDT

LOCATION: Adelaide, Brisbane, Sydney, Melbourne and teleconference.

ATTENDEES:

COMPANY	REPRESENTATIVES
AER	Craig Oakeshott
AGL	Simon Camroux, David Sheen, Kong Min Yep, Michael Pierce
Ausgrid	Ping Tan
DE Power	Peter Wormald
Dept of Industry & Science, Electricity Markets	Wilfred Antioch
Department of Industry, Innovation and Science	Jee Karunarathna, Michael Gurner
Ecoult	Marc Pelletier, Tze Masters
ElectraNet	Brad Parker
Energy Australia	Richard Paprzycki
Gamma Energy Technology	Geoff Bongers
GDF Suez	David Hoch
Hydro Tasmania	Marian Piekutowski, Prajit Parameswar
Hydro Tasmania Consulting	David Bowker
NSW Department of Industry	Paul Bourke
Origin	Jonathan Jorgensen
Powerlink	Cameron McLean, Enrique Montiel
SA Department of State Development	Jinny Pavanello, Marino Bolzon, Debbie Wielgosz
Sligar and Associates	John Sligar
TasNetworks	Dinesh Perera, Herath Samarakon
TransGrid	Miyuru Ediriweera, Lulu Shao
AEMO	Matt Armitage (chair), Nicola Falcon, Laura Walsh, Jean-Philippe Montandon, Nadesan Pushparaj, Ben Skinner, Jess Hunt, Jennie Lu, Alex Driscoll, Elijah Pack, Lars Narushevich, Andrew Groom, John Lu, Aaron Benstead

1. Welcome and Introductions

AEMO outlined the purpose of the workshop was to obtain feedback on the 2015 NTNDP and discuss the material issues that stakeholders would like addressed in the 2016 NTNDP, and how they should be addressed.

2. 2015 NTNDP Feedback

Stakeholders were invited to provide feedback on the following aspects of the 2015 NTNDP:

- Key messages of the development plan and emerging challenges sections.
- NTNDP database and interactive map.
- Overall value of the NTNDP.

Stakeholder feedback:

Stakeholders would like to see a bibliography of AEMO publications to track down the information that AEMO is using across publications.

Some stakeholders felt that the NTNDP scenarios could be broadened in future. This could also be complemented by providing a scenario outlining the most likely outcome, which could provide a base case or most likely future.

A number of stakeholders are interested in seeing more detailed Network Support Control Ancillary Services (NSCAS) analysis.

Some stakeholders would like to see the impact on transmission network development if generation planting occurs in locations outside the least cost expansion plan.

Many stakeholders are interested in NTNDP raw data, namely:

- Details of transmission constraints and interconnector flows.
- Network utilisation statistics
- Fuel and technology costs

Some stakeholders get more value from this raw data rather than the data provided through an interactive map.

In general stakeholders proposed that the 2015 NTNDP emerging challenges section was good but they would appreciate more examination of solutions to emerging challenges such as:

- System inertia
- Voltage control
- Effect of challenges on Frequency Control Ancillary Services (FCAS) supply
- Penetration of rooftop Photovoltaics (PV)

In determining least cost optimisation some stakeholders are interested to know to what extent new interconnectors fall short in terms of a net market benefit test.

3. Material Issues

Stakeholders were invited to provide feedback on the material Issues outlined in the 2016 NTNDP consultation paper, under the following headings:

- Summary of approach to COP21 emission abatement commitment – from consultation.
- Changing generation mix - leading to operational challenges.
- Emerging options to address operational challenges.
- Any other feedback.

AEMO explained its approach for the 2016 NTNDP in considering how Australia's COP21 Commitment might be achieved. Rather than assuming particular abatement policies, the analysis will presume that the NEM achieves a proportionate share of emissions reduction to 2030 as efficiently as possible. AEMO's modelling approach is to identify least cost outcomes across generation and transmission.

Energy Australia stated that their modelling also shows a similar level of coal-fired generation retirements as published in the 2016 NTNDP consultation paper.

GDF Suez queried modelling of 28% of reduction in greenhouse gas emissions target across all scenarios, stating that a sensitivity on the target not being met might be interesting.

Hydro Tasmania queried modelling of implicit carbon price in the least cost assumption on the generation outlook. AEMO clarified that the carbon price would be used in developing the demand forecasts (through price elasticity of demand) but not in the least-cost generation expansion plan. Instead, an explicit constraint on carbon emissions would be used in the modelling.

GDF Suez suggested that a robust and transparent process should be the priority for the modelling. With respect to the impact of carbon price on demand, GHD Suez suggested that there may be value in a feedback loop or appropriate assumptions applied to capture this impact.

Powerlink noted that the QLD government has made ambitious commitments to reducing emissions and incentivising renewable generation in the region. Powerlink is keen to see the NTNDP scenarios accommodate 1 million households with rooftop PV by 2020 and 50% renewables by 2030.

General discussion took place on the scenarios and sensitivities for transmission outlooks and possible resulting interconnector and generation expansion plans. ElectraNet pointed out that participants will make the most efficient decisions for their businesses not for the network as a whole, and asked whether NTNDP will consider an alternative approach to the least cost model.

AGL pointed out that if thermal generation is withdrawn, the analysis should cover what happens from both an energy and a capacity point of view, as renewables may solve the energy problem but not the capacity challenge. This view was reiterated by Origin. Furthermore AGL pointed out a possible risk with modelling in PLEXOS or Prophet that the granularity could be lost, particularly when it comes to the difference between energy and capacity challenges.

AER stated that the purpose of the NTNDP is to account for possible known issues, and to highlight the likely scenarios that could occur, and not to focus too much on post contingency plans. It was also put forward that AEMO's role should be to provide the baseline information that commercial organisations can use to make investment decisions and to inform the market of the likely cost of potential solutions.

AER outlined the view that the NTNDP should have a clear, strategic focus as an examination of long term network planning and transmission augmentation. It was suggested that a NEM-link examination would be more appropriate than getting into detailed security analysis. As large withdrawals of synchronous generation occur in South Australia, the need for further interconnection in Victoria-South Australia will need to be considered.

SA Department of State Development put forward the contrary view that the NTNDP should explore solutions to emerging challenges in detail.

Origin put forward the view that the NTNDP should not be focusing attention on low probability events such as the Basslink outage, but on situations where challenges are experienced in business as usual conditions, such as in South Australia.

GDF Suez raised a concern with respect to modelling of non-credible events. Outlining that there may be commercial reasons why some events have a greater than anticipated impact,

so AEMO should not be concerned with trying to model the impact of commercial decision making.

AGL stated that some challenges are impossible to foresee and may come from political decisions. For instance, in South Australia it is possible that more government intervention could force thermal generation to stay online, which goes against the premise that entrepreneurial markets should deliver the necessary services at appropriate cost. These type of influences should not be included in NTNDP modelling.

Energy Australia questioned whether the risk of smelter closure should be considered in the analysis and what would trigger this to be examined in supplementary analysis.

GDF Suez noted that industries are unlikely to release any commercially sensitive information to AEMO, and hence talking to smelters may not accurately gauge the risk of closure. Proposing instead that AEMO may have to take a view based on global supply curve and risk in the context of the bigger picture, for instance, by examining the sensitivity of demand to a percentage of smelters closing.

Hydro Tasmania pointed out that they currently provide NSCAS-type services to the market and these are not paid for. Their services reduce the impact of voltage challenges such that NSCAS gaps are not reported.

AER pointed out that NSCAS is defined in the Rules as a “need” identified by AEMO, and a “gap” whereby the “need” is anticipated to occur within the next five years. AEMO should highlight the NSCAS need with the Transmission Network Service Providers (TNSPs) to identify how they intend to manage the situation. If TNSPs do not have a solution, AEMO should identify a NSCAS gap in the NTNDP and take steps to procure. AER also suggested that the NTNDP should encompass emerging challenges in the NSCAS analysis.

Hydro Tasmania and TasNetworks pointed out that more services such as NSCAS will be required in future to manage operational challenges.

Powerlink pointed out that they will need to start making decisions on replacement of flow paths assets, which are coming to the end of their lifecycle. Powerlink is interested to see future utilisation of flow paths in the NTNDP, to assist their decision making on like-for-like replacement of network assets.

AEMO acknowledged stakeholders feedback and comments for consideration in development of 2016 NTNDP.

4. Australian Power Generation Technology Report 2015

Dr Geoff Bongers gave a presentation on the Australian Power Generation Technology Report which presents a broad range of available generation technologies, including their capabilities and costs in 2015 and looking out to 2030.

AEMO informed stakeholders of its intention to use the technology costs outlined in the Australian Generation Technology Report and invited stakeholder feedback.

5. Close of meeting

AEMO thanked the participants for their time and contributions to the NTNDP consultation. AEMO will take into account today’s discussions along with any written submissions to scope 2016 NTNDP. AEMO invited participants to make their written submission for any additional input.