

18 May 2018

Ms Anne Pearson
Chief Executive
Australian Energy Market Commission
Po Box A2449
Sydney South NSW 1235

Attention: Ms. Sarah-Jane Derby

Australian Energy Market Commission's Reliability Frameworks Review – Directions Paper (EPR0060)

Energy Networks Australia welcomes the opportunity to provide a submission to the Australian Energy Market Commission's (AEMC) Reliability Frameworks Review – Directions Paper, issued on 17 April 2018.

Energy Networks Australia is the national industry body representing businesses operating Australia's electricity transmission and distribution and gas distribution networks. Member businesses provide energy to virtually every household and business in Australia.

The AEMC's professional and evidence-based approach to this review is vital to ensuring ongoing system reliability, security and affordability for all customers. Related to this, the AEMC's current engagement with Energy Networks Australia and other stakeholders in exploring possible options for a potential future distribution system operator (DSO) model, is welcomed.

The timing of this review allows for exploration of a number of Finkel Report (June 2017) recommendations and assessing whether adjustments are required to address system reliability as the generation mix continues to transform. In this perspective, Energy Networks Australia recommends AEMC consideration of linkages of the review to the integrated system plan (ISP), as well as ongoing DSO model exploration and development. It is important for the AEMC to consider reliability not just in the wholesale market but also in relation to how overall reliability performance is dependent on each of transmission and distribution.

Whilst Energy Networks Australia has provided the AEMC with detailed feedback on its Directions Paper within a separate Attachment, several key themes deserve additional consideration:

- Energy Networks Australia is open to further exploring parties other than just retailers contributing to forecasts. Energy Networks Australia consider that multiple options should be explored as part of the DSO work and will help to inform how best to capture accurate forecasts. Networks can contribute to demand response and should not be precluded. Energy Networks Australia supports further consultation as to whether the Australian Energy Regulator or

the AEMC's Reliability Panel should be the body to report on forecast versus actual outcomes.

- Energy Networks Australia agrees with the AEMC, in that, some form of strategic reserve needs to be in place to avoid involuntary load shedding. Our preliminary view is that we support the proposed amendments. However we will review the additional AEMO information and respond to the long notice RERT rule change separately.
- Energy Networks Australia seeks further clarification from the AEMC on the important concepts of 'dispatchability' and flexibility and to ensure that consideration is also given as to how these will interact with the design of the National Energy Guarantee.

Energy Networks Australia looks forward to continuing working closely with the AEMO and AEMC on the distribution system operator model, which will help shape whole-of-industry preferred approaches to reliability forecasting and wholesale demand response, which in turn delivers value to all customers and maintains network reliability.

Should you have any additional queries, please contact Verity Watson, Energy Network Australia's Head of Transmission on 0404 098 597 or vwatson@energynetworks.com.au

Yours sincerely,

A handwritten signature in blue ink, appearing to read "A. Dillon".

Andrew Dillon
Chief Executive Officer

Attachment

1 Forecasting and information processes

Energy Networks Australia agrees with the AEMC that the National Electricity Market (NEM) is dealing with forecasting challenges now, and into the future, in managing a transforming energy sector. For example, in accounting for the increasing uptake of Distributed Energy Resources (DER), variable renewable energy sources and more extreme weather conditions.

A systematic and transparent approach in assessing forecasting outcomes and methodologies is welcomed.

More generally, it appears important that stakeholders have a more fulsome understanding of the extent and quantum of the forecasting problem currently at hand. This could involve a cost/benefit analysis ahead of implementing any new arrangements and introducing significant changes to the methodologies and responsibility/accountability for forecasting.

In terms of the specific issues in the Paper, Energy Networks Australia:

- » Supports further consultation as to whether the Australian Energy Regulator or the AEMC's Reliability Panel should be the body to report on forecast versus actual outcomes. It would appear a limited governance model to have AEMO self-assess its forecasting if transparency and independence are important criterion.
- » Is open to further exploring parties other than just retailers contributing to forecasts. Energy Networks Australia consider that multiple options should be explored as part of the DSO work and will help to inform how best to capture accurate forecasts. Networks can contribute to demand response and should not be precluded. This could be an efficient approach to work the AEMC considers is already being undertaken by network businesses to better plan and operate their respective networks.

In addition, it should be noted that different forecasting issues arise in different jurisdictions. For example, in contrast with other states in the National Energy Market (NEM), Tasmania is energy constrained as opposed to capacity constrained and is dominated by hydro generation. This presents unique challenges to forecasting for reliability purposes, particularly over medium and longer term time horizon given modelling assumptions around rainfall, the security of gas supply and contracted load-shedding. The reliability frameworks review needs to recognise these outcomes and differences.

2 Suitability of a (Day) ahead market for the NEM

Energy Networks Australia continues to monitor the on-going discussion on (Day) Ahead Markets (DAM) as part of the reliability frameworks review. Energy Networks Australia notes that the AEMC considers that there are many features of a DAM already in play in the NEM that can be incrementally improved.

We also note the importance in establishing a unanimous and well-understood objective for such markets, as it is fundamental to how such (potential) markets are designed. Of the three AEMC options outlined:

- (i) improved market participant information
- (ii) improved system operator information, and
- (iii) improved system operator unit commitment ability for scheduling purposes) for how a more formalised (day) ahead market might work,

the second and third options appear most relevant in the NEM context.

We would welcome further engagement with AEMO and AEMC on these issues going forward. It is difficult to commit to any positions at this stage, as the AEMC anticipates AEMO providing further information that may assist the debate and how such (day) ahead markets may interact with any new National Energy Guarantee and a move to a five-minute settlements regime (July 2021).

Other additional issues for networks in relation to such markets include:

- » The risks associated with a change in configuration of the network from that anticipated for market settlement a day-out. Accountability for changed network circumstances that could have a significant effect on the actual dispatch, would clearly need to be considered, and
- » How DAMs may support the potential participation of distribution networks in such markets.

3 Wholesale demand response

The Directions Paper offers two options that would allow multiple parties to engage a single provider consumer behind a connection point without it being contingent on the agreement of the FRMP:

- » Transferring the value of the wholesale demand response from the existing FRMP to the aggregator
- » Transferring the spot market responsibility for demand responsive load from the existing FRMP to an aggregator.

The first option outlined above appears consistent with the AEMO high level design and the extensive work undertaken under Power of Choice - Wholesale demand response mechanism. At the time a number of cost benefit assessments were completed and concluded there was insufficient cost benefit to proceed..

Energy Networks Australia recognises that it has been several years since that review, higher wholesale prices and improved technology and battery offerings could have changed the value of this approach.

Energy Networks Australia also recognise the current AEMO/ARENA RERT trial is using baselines to determine the extent of the demand response provided into that program by loads. We understand that there may be useful insights to take into consideration in a revised cost benefit. This revised cost benefit could also consider the Singaporean approach where there is a demand response incentive sharing arrangement and the practicalities of the demand response provider submitting their baseline across a wider range of offerings.

The second option transfers the spot market responsibility for demand responsive load from the existing FRMP to an aggregator. Essentially a customer could have different home appliances with different retail entities/demand response providers in the market. As the Directions Paper noted this option was reviewed as part of Power of Choice – Multiple Trading Relationships (MTR) and after several independent cost benefit reviews recommended not to proceed.

We are aware that some retailers are working with battery providers and providing valuable wholesale demand response currently without the added significant complexity that MTR entails. Whilst technology capability has increased over recent years, the additional roles in the NEM with competitive Metering Coordinators and metering service providers make a single connection with multiple meters potentially even more expensive. Customers may not understand the implications of the costs of multiple meters, confusion where one provider can impact the other if separate isolation fuses are not used and the complexity of network billing for one connection point with two separate loads and financial arrangements.

Given previous work on MTR concluded this was not a cost effective option to progress, the benefits would need to be reassessed in light of market and technology changes. Despite our reservations on costs and complexity of the MTR, Energy Networks Australia is open to the MTR if this were now seen as cost effective and unlocked substantial benefits unable to be achieved through the DRM.

It is desirable that any market arrangements developed for a demand response mechanism allow many parties to provide such services, including networks and demand response aggregators. Transmission network service providers may need demand response for load management to reduce network needs or where there are generation shortages. Any market arrangements need to ensure:

- the reasonableness of the baseline or the demand response provided;
- that the demand response has in fact been provided; and
- that appropriate governance arrangements are in place if the demand response provider is setting their own baseline and to manage multiple parties asking and paying for the same demand response.

It will be important that both customers and those participating in demand response benefit.

Network provision of wholesale demand response solutions

Energy Networks Australia supports cost effective wholesale demand response mechanisms, which enable management of network reliability. If supported by an appropriate policy framework, transmission network service providers can be best placed to provide cost effective demand response solutions through the strategic use of technologies such as grid scale batteries. Likewise, distribution network service providers have demonstrated their ability to enable effective demand response mechanisms through engaging with electricity customers and incentivising reductions in consumption during heatwaves¹.

In such cases, and unlike other parties tasked with providing demand response incentives, there is no conflicting interest as network outcomes are also improved in terms of quality, security and safety of supply.

Energy Networks Australia considers that given an appropriate regulatory framework, network service providers should be able to participate in the provision of wholesale demand response services. This is particularly the case where it would be too costly for other parties to economically pursue. Networks could assist in overcoming all the challenges identified with the current arrangements while simultaneously benefitting all customers through addressing other technical issues such as frequency control or localised constraints.

Network sensing and management of localised network constraints

In looking towards a future with improved realisation of the value of wholesale demand response, Energy Networks Australia considers that further support is needed for better understanding and managing local network constraints, which could otherwise prevent customers with active distributed energy resources (DER) from gaining full benefit from demand response participation. As discussed in Energy Networks Australia's submission to the Commission regarding the Frequency Control Frameworks Review, Energy Networks Australia and its members are proactively exploring options for addressing challenges related to DER technology types, metering and verification options, aggregation and the influence to and from the grid under various network conditions².

The AEMC is invited to work in collaboration, or as it sees fit, with AEMO and Energy Networks Australia in exploring the benefits of utilising distribution system operators (DSOs), and identifying the regulatory and technical enablers required to realise these benefits. While still in initial planning stages, this collaboration will likely involve significant consultation with all stakeholders in undertaking options analysis on a

¹ Some distributors have undertaken demand response trials involving pool pump control, air conditioning control, voluntary or contracted/firm load reduction.

² Energy Networks Australia Submission to AEMC Frequency Control Framework Review, 24 April 2018

selection of potential DSO architecture models, and could assist in addressing many of the reliability framework challenges outlined by the AEMC in the Directions Paper.

Energy Networks Australia is keen to work more closely with the AEMC to firstly identify minor “no regrets” regulatory changes, which could quickly capitalise on positive results seen from initial wholesale demand response trials by network service providers; and secondly to identify longer-term regulatory solutions to many of the challenges outlined within the Reliability Frameworks Review.

4 Strategic reserve

Energy Networks Australia notes that the AEMC has deferred an assessment of the need for a strategic reserve mechanism as part of this Review. We acknowledge the move to treat this matter as two separate rule changes, (i) to re-instate the long-notice RERT to be in place for the upcoming summer and (ii) to enhance the RERT as part of a longer-term measure.

The reinstatement of the long-notice RERT provisions is the subject of an expedited rule change with a view to finalizing the rule by mid-2018 to enable AEMO to procure reserves for the summer 2018/2019. AEMO considers that the current 10-week period does not provide sufficient lead-time for the procurement of reserve capacity in the most cost effective way, this could limit the range of reserves AEMC can access and could act as a barrier. Our preliminary view is that we support the proposed amendments, however we will review the additional AEMO information and respond to the long notice RERT rule change separately.