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Australian Energy Market Commission
Po Box A2449
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Attention: Ms. Sarah-Jane Derby

Australian Energy Market Commission's (AEMC) Reliability Frameworks Review – Interim Report – (EPR0060)

Energy Networks Australia welcomes the opportunity to provide a submission¹ to the Australian Energy Market Commission's (AEMC) Reliability Frameworks Review (RFR) – Interim Report, issued on 19 December 2017.

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.

Energy Networks Australia recognises the importance of system reliability, system security and affordability for all businesses, households and consumers. Energy Networks Australia also appreciates the context that the AEMC provides for the Reliability Frameworks Review, with various policy debates, the influence of policy settings on the National Electricity Market (NEM), and the considerable attention of media and policy makers to reliability². This review provides the opportunity for timely broad exposure of the current reliability framework, and allows for examination of how adjustments or changes may impact its effectiveness.

The AEMC notes that as the review progresses it will consider how it may interact with the National Energy Guarantee (NEG). Energy Networks Australia strongly supports the establishment of a framework to ensure important information from this review and other relevant processes is fed into NEG policy development and given due consideration.

In reviewing the interim report, Energy Networks Australia considers the following key issues and suggested enhancements to existing reliability arrangements should be considered as part of any further AEMC examination in progressing this important consumer-focussed review.

¹ Energy Networks Australia also appreciates the opportunity provided by the AEMC to discuss some of the key issues in the report as part of a bilateral member briefing held 12 January 2018.

² As discussed in the Executive Summary of the AEMC's Interim Report, Reliability Frameworks Review, page ii.

1. Current Reliability Framework

The Interim Report discusses the intervention mechanisms available to AEMO in the existing framework, and notes that intervention should be used as a last resort, as it can distort outcomes, resulting in potentially negative effects on reliability and higher costs³. Energy Networks Australia supports this position, however in doing so, we consider that the framework must ensure that robust fall back solutions are provided to mitigate any additional risk from a market that is changing rapidly, and which will continue to do so.

We note that jurisdictions also may have intervention powers, for example the legislative powers recently acquired by the South Australian Energy Minister, noting that these are only intended to be exercised as a last resort mechanism.

While acknowledging the requirement for this last resort mechanism, Energy Networks Australia considers that the AEMC should identify all current intervention powers that seek to protect system reliability and security. A key objective for an effective NEM reliability framework should be to provide confidence that any consideration of intervention by a jurisdiction would only be done after consideration of any additional costs on consumers.

2. Potential considerations in defining 'Dispatchability' and 'Flexibility'

Energy Networks Australia acknowledges the complexities outlined by the AEMC in the Interim Report in endeavouring to attain unambiguous definitions for 'Dispatchability' and 'Flexibility'. Energy Networks Australia considers a purely technical analysis of these terms limits the scope for a satisfactory resolution. Energy Networks Australia suggests dispatchability and flexibility should be considered (on more economic grounds) as being analogous to price-responsiveness (i.e. the ability of a supplier to respond to changes in prices).

For example, a closer examination of supply-side price elasticity, introduces the time dimension that may be overlooked when a purely technical/physical basis is applied.

At this point of the review, the AEMC's current definition of "dispatchability" and "flexibility" still does not appear to provide an unambiguous solution. Consequently, analysis focussing on "price responsiveness" may need to be considered to assist in comprehensively defining what is to be valued in the market.

Energy Networks Australia will be keen to engage on these issues as further clarification of the specifics of the NEG develop and progress.

3. Market Incentives – Contract Market

Energy Networks Australia suggests that the AEMC's review should also consider how the mechanisms interact with jurisdictional-specific arrangements that materially

³ Page 31 of the Interim Report.

affect incentives in the contract market. This will ensure that any proposed changes to the national reliability framework have proper regard to such mechanisms.

For example, there are no current ASX listed Tasmanian electricity derivatives. Given this, and the desire to reduce the risks faced by retailers operating in the Tasmanian market to a level comparable in the rest of the NEM, the Tasmanian Wholesale Contract Regulatory Framework (TWCRF) was introduced in 2014. The TWCRF sets out the rules surrounding the provision of Tasmanian electricity derivatives by Hydro Tasmania to other electricity market participants⁴.

Any 'national' or NEM-wide contracts will need to be cognisant of such arrangements.

4. Forecasting

Energy Networks Australia agrees that forecasts are at the foundation of the reliability framework. As the energy system transforms to renewable energy sources there is a need for advancement in forecasting techniques, and in the information available for forecasting. AEMO has recognised this and has a program of improvements underway⁵. This finding is consistent with the recommendations from the ENA/CSIRO Electricity Network Transformation Roadmap and as such, Energy Networks Australia strongly supports any effort to improve forecasting.

There has been recent experiences in NSW (February 2017) and South Australia (February 2017) that indicates in times of extreme temperature conditions and system stress, AEMO's short-term forecasts can be subject to significant error. It may therefore be beneficial to take a more granular approach to assessing forecasting outcomes that can be seen as the 'extreme', rather than 'averaged out' across the NEM. It should also be noted that different forecasting issues arise in Tasmania, which is energy limited. The RFR needs to recognise these outcomes and differences.

Energy Networks Australia also considers that Distributed Energy Resources (DER) is an issue worthy of further examination as it is rapidly growing in scale. A better industry understanding of how the various forms of DER entering into, and interacting with distribution networks are being accounted, and included, for forecasting purposes in assessing system reliability requirements, and oversight of these issues appears essential. Energy Networks Australia is undertaking significant work in this space and our members are willing to assist the AEMC in further examination of this issue as part of this Review.

⁴ Some of the varied benefits of these arrangements include: (i) facilitating the efficient and transparent pricing of Tasmanian electricity derivatives; (ii) providing a direct mechanism by which participants can hedge Tasmanian exposures; (iii) guaranteeing sufficient liquidity for participants wanting to hedge Tasmanian exposures; and (iv) Allowing an indirect method by which participants can enter into over the counter (OTC) derivative transactions that do not involve Hydro Tasmania. For example, by using the published Tasmanian derivative prices as reference prices in other OTC derivative contracts.

⁵ Page 62 of the Interim Report.

Energy Networks Australia supports the AEMC exploring ways which variances in forecasts can be better managed through the forecasting process.

5. Wholesale Demand Response

Energy Networks Australia also acknowledges the difficulty in accurately determining the true level of load-related demand response⁶. To help address this issue, there are a number of specific issues that should be examined, including:

- a. Clarification on whether emergency demand / generation response (e.g. under-frequency load shedding, over-frequency generation shedding/special protection schemes) are within the scope of the RFR. Currently, market participants or customers are not compensated for emergency response. Grid-scale batteries can be very useful in assisting with emergency response under non-credible conditions, and consideration should be given in regard to how such energy contributions under emergency conditions could be valued, or whether they are classed as an expected contribution without further compensation.
- b. Whether Demand Response would be better understood if it were seen as a facilitator in the wholesale market.
- c. Consumer expectations be regarded as an important consideration in defining, and attaining a more holistic understanding of Unserved Energy (USE) in applying the NEM's Reliability Standard.
- d. Consideration as to whether the right incentives are in place for this aspect of the demand response market.

6. Strategic Reserve

Energy Networks Australia agrees with the AEMC finding that some form of reserve mechanism is required⁷. This reserve mechanism should supplement the market mechanisms and be applied only as a last resort. It is unlikely that the reliability framework, with a rapidly changing energy mix, can be sufficiently robust without such a mechanism. Timeliness to procure reserves at an efficient cost will also be important considerations for the framework. We look forward to examining any potential alternative options to the existing Reliability and Emergency Reserve Trader (RERT) arrangements and the impending release of an AEMO Working Paper on Strategic Reserves to help inform the debate on this subject.

7. Day-ahead markets

Energy Networks Australia notes the discussion on Day Ahead Markets (DAM). Fundamentally, DAMs are short-term forward markets that provide a mechanism to reduce volatility of spot and real-time processes, some 24 hours ahead. Energy Networks Australia also notes the AEMC's view that the current framework contains

⁶ Executive Summary, p.iii of the Interim Report.

⁷ Refer to page 144 of the Interim Report.

important aspects of a DAM, without some of the broader market framework elements, common to equivalent markets utilised overseas. These include nodal pricing and financial transmission rights. For the NEM, these features have been examined previously, with little enthusiasm for change. However, Energy Networks Australia strongly suggest, that any further consideration of a DAM would require these features be further explored as part of this Review.

For networks, a key issue is the risk 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. For example, through related intra-day market arrangements.

Energy Networks Australia supports the AEMC reviewing the relative merits of DAMs. However, any further review needs to consider the full implications of application in the NEM context, especially against whether such a move provides an efficient outcome, with on-going reliable supply, at a reasonable price. How any DAM would interact with the NEG must be considered, as the design of the NEG may significantly influence the benefits a DAM could bring to the NEM. We also suggest that the AEMC considers how DAMs may support the potential participation of distribution networks in such markets.

8. Other matters

The following issues also appear worthy of further consideration and monitoring by the AEMC:

- » **Categories of demand curtailment / load shedding** - It was noted that large volumes of load shedding recently occurred in NSW, but there was comparatively low levels of load shedding reported by AEMO. This is due to the exclusion of certain types of load shedding from the definition of unserved energy in the reliability standard. This practice will continue to lead to a relatively high level of consumer dis-satisfaction, and warrants review.
- » **Multiple reliability standards** - AEMO's suggestion that the NEM needs multiple reliability standards to address planning and operational reliability, in addition to existing services (refer page 278 of the Interim Report) is of note and requires further clarity.
- » The Finkel Review's 2017 Final Report's recommendation regarding a minimum three-year nomination period for closure of existing generation. It will be important to clarify how any related Rule changes might proceed. Will it be administered in parallel or as part of the RFR?
- » The AEMC states that it has not considered how the regulatory investment test for transmission (RIT-T) operates in respect of interconnectors in the interim report, as it considers there are more significant threshold questions relating to the reliability frameworks that need to be resolved first. Energy Networks

Australia considers that the significant issue of how the RIT-T operates in respect of interconnectors must be considered through a detailed process, in due course.

Should you have any additional queries, please contact Norman Jip, Energy Network Australia's Senior Program Manager - Transmission on (02) 6272 1521 or njip@energynetworks.com.au

Yours sincerely,



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