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Australian Energy Market Commission



**EnergyAustralia**

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Dear Commissioners

Lodged electronically: [www.aemc.gov.au](http://www.aemc.gov.au) (ERC0212)

### **AEMC, Emergency Frequency Control Schemes – Draft Determination, 23 December 2016**

EnergyAustralia is one of Australia's largest energy companies with over 2.5 million electricity and gas accounts in NSW, Victoria, Queensland, South Australia, and the Australian Capital Territory. We also own and operate a multi-billion dollar energy generation portfolio across Australia, including coal, gas, and wind assets with control of over 4,500MW of generation in the National Electricity Market.

We welcome the opportunity to further contribute to this important topic. Our customers expect a secure and reliable energy system and this should be a priority for the entire energy supply chain. The National Electricity Rules (the Rules), as they are currently drafted, already provide mechanisms to improve system security which should be progressed without delay. However, the clarity of system security obligations needs improvement.

#### **Enhancing the Emergency Frequency Control Scheme**

Emergency frequency control schemes are low cost measures to ensure the system can be returned to a satisfactory operating state following an event with minimal disruption. For low-likelihood, non-credible events - such as the double line trip of the Heywood interconnector – customers will benefit from relying on load-shedding rather than additional transmission constraints or significant capital investment, which have the potential to materially increase the cost of electricity.

We support the enhancement and clarification of the regime, including the explicit framework developed for over-frequency generation shedding. The inclusion of an emergency frequency control scheme objective should provide additional transparency and consistency in relation to the development of these schemes. We consider that any existing schemes that have been developed, or are being developed, should require compliance with this objective to ensure broader consistency for all relevant schemes.

In particular, we note that AEMO and ElectraNet are currently implementing an over-frequency generation shedding scheme to be implemented in SA. The scheme is to be implemented under the Rules<sup>1</sup> which require Network Service Providers (NSPs) to plan and operate their network in a way to reduce the risk of cascading failures for any credible or non-credible event. We support this action and believe measures should be

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<sup>1</sup> S5.1.8 NER

implemented as soon as possible to prevent further disruption to the electricity supply of South Australian customers.

### **Protected Events**

The draft Rule provides further details of the proposed new contingency category of a *protected event*. We have previously stated that prior to introducing a new category, exploration of Rule 4.2.3A and AEMOs existing ability to reclassify non-credible contingency events as credible in the face of abnormal conditions, should be undertaken. If the new category is introduced it should be considered how the existing powers can be utilised in conjunction with the protected event category to ensure the best outcomes for consumers.

We note that at present NSPs must consider non-credible contingency events in planning the power system.<sup>2</sup> We expect that any protected event, which would include high impact or increased likelihood events, would currently be considered by the NSP under the existing framework. Therefore the creation of a protected event may not set a higher standard of system security.

While a protected event could be based on projected scenarios, we consider it is more likely that any such classification is going to be based on a network event that has caused significant impacts to the market. As such it is likely this classification process will be based on prior events. This has implications for the usefulness of this category, depending on the specific settings for a given protected event. Where the settings are heavily biased towards a particular prior event there is an increased risk of the protected event not capturing the next contingency, if it doesn't conform to that narrower classification, and thus not providing the proposed protection. Where those settings are broader, then there will be more instances of intervention related to this protected event and thus more significant price impacts for consumers.

Again we reiterate that this proposed Rule needs to be assessed as to whether it provides a potentially lower cost way to mitigate risks due to abnormal system conditions that may not otherwise have resulted in re-classifying a non-credible contingency to credible. The cost versus benefit evaluation would need to be compelling to consider the introduction of a new event category, particularly in the context of the additional procedural complexity a new category would introduce.

To summarise, EnergyAustralia supports the enhancement of the existing emergency frequency control schemes, given that they are effective and low cost solutions to managing frequency under non-credible contingencies. In an environment where high rate of change of frequency (RoCoF) may impact on the utility of these schemes to operate as designed, we also support the ongoing work by both AEMO and AEMC to understand the potential problems and to identify suitable risk-based and cost effective solutions. We consider that while setting RoCoF limits and establishing new categories for contingency events may assist in maintaining system security, these have serious cost implications for consumers. In order to minimise this cost, more work needs to be done in assessing the various options identified as part of AEMO's Future Power System Security project.

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<sup>2</sup> S5.1.8 NER

EnergyAustralia are keen to continue engaging with the Commission on issues relating to system security, to ensure the best outcome for customers. If you would like to discuss this submission please contact me on 03 8628 1393.

Regards

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