



**EnergyAustralia**

6 November 2017

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Australian Energy Market Commission

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Dear Commissioners

Lodged electronically: [www.aemc.gov.au](http://www.aemc.gov.au) (ERC0222)

### **AEMC 2017, Generator Technical Performance Standards, Consultation Paper, 19 September 2017**

We welcome the opportunity to comment on the AEMC's consultation paper on AEMO's rule change request to amend the Generator Technical Performance Standards. EnergyAustralia is one of Australia's largest energy companies with over 2.6 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 (NEM).

EnergyAustralia continues to support efforts to improve system security, reliability and affordability. We recognise AEMO's proposed changes to the standards are intended to deliver system resilience benefits, however, EnergyAustralia is concerned that the proposed changes have not been considered in the context of other steps being taken to improve the electricity network. The duplication of effort to address issues could lead to over-engineering in generation technology, increasing costs for customers unnecessarily. Further the new standards could present barriers to entry for both new entrants and upgrades to existing plant, which would be detrimental to system reliability.

#### **Taking a holistic and cost-effective approach to providing ancillary services**

In addition to energy, generators can provide a range of ancillary services, such as system strength and frequency management, that support the secure operation of the network. Historically these services have been provided as by-products of energy production by large synchronous generators and have not been explicitly valued. As these generators exit the market, ancillary network management services need to be procured from elsewhere. AEMO have proposed changes to the generation performance standards as a solution. The changes include raising the minimum technical operating standards and changing the negotiation framework so that the starting point for negotiations must be the automatic standard, which has higher thresholds than the minimum standard.

The proposed standards place additional obligations on new generators to provide ancillary services. However, this approach may not be the most efficient way of addressing system strength and security issues.

The proposed use of mandatory standards to manage network issues could lead to an unnecessary increase in generation costs. While minimum standards are one option, alternative approaches could provide solutions at lower cost. For example, the rate of change of frequency rule change, which comes into effect on 1 July 2018, addresses frequency management problems by placing obligations on the NSP, rather than placing a restrictive technical standard on generators.<sup>1</sup> Placing universal obligations on plants to provide further frequency management capability could unnecessarily increase energy generation costs. Rather than facilitating efficient investment in network development to address the issues, the proposed changes to generation standards could result in over-investment in generation infrastructure, ultimately leading to unnecessary cost increases for customers.

Other amendments, as drafted by AEMO, appear to be in excess of system requirements. For example, changes to S5.2.5.14 will require all connecting generators, regardless of generation capacity, to have facilities to provide active power control including responding to instructions from AEMO to modify power output. As worded, this implies that this standard extends to all domestic customer installing solar PV generators. EnergyAustralia questions whether this is AEMO's intention and whether such measures are required to ensure the security of the network, and would deliver material benefits, given the costs involved in meeting this standard.

Prior to making potentially costly changes to the Rules, it is imperative that the system requirements are well understood first. Only then can the most cost-effective solutions be identified for implementation. In EnergyAustralia's view it would be prudent to complete the Review of the Frequency Operating System and the Frequency Control Frameworks Review prior to making changes to any technical standards for generators.

### **Detrimental impacts on reliability and ancillary services**

Some of the proposed changes place stringent obligations on generators that could present significant barriers to either entry for certain types of generation or to upgrades of existing plant.

While existing plant will be exempt from the standards, AEMO stated in their supplementary information paper that they would not be grandfathering any existing negotiated standards.<sup>2</sup> This means that generators will need to re-open negotiated standards to make modifications to existing plant and will be obligated to meet the new automatic standard, or demonstrate why this is not possible.

This could have material impacts on both system reliability and the framework for supporting opportunities for future system improvements.

Given the age and technical capability of some plant, this policy may prohibit upgrades as the costs of retrofitting equipment to meet the new standards will be too high. In effect, this prevents existing generators from expanding capacity or making improvements to plants that could have positive impacts on system strength and security.

Over the last few years Yallourn Power Station upgraded its turbines to improve plant efficiency. This increased capacity by around 80 MW (the size of a small power station), improved grid reliability, and reduced carbon emission intensity. Under the proposed changes, this upgrade would have been unlikely to proceed as the plant modifications would have

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<sup>1</sup> Managing the rate of change of power system frequency rule change – Final Determination, <https://www.aemc.gov.au/rule-changes/managing-the-rate-of-change-of-power-system-freque>

<sup>2</sup> AEMO supplementary advice, <http://www.aemc.gov.au/Rule-Changes/Generator-technical-performance-standards>

triggered a renegotiation of standards under the National Energy Rules (Clause 5.3.9) and the added modifications to meet the new minimum standards may have been cost prohibitive.

Finally, we oppose the rules being introduced retrospectively to August 2017. This creates enormous uncertainty for investors that are currently finalising decisions to build based on existing expectations of requirements and costs. Applying rules retrospectively would set a dangerous precedent and would increase investor uncertainty about policy stability in Australia's energy market. This could ultimately impact on a generator's ability to access financing for new developments, to the detriment of system reliability.

In conclusion, EnergyAustralia strongly supports changes that will improve the strength, security and affordability of the National Electricity Market (NEM). However, the proposed changes to generator technical performance standards are excessive and could be detrimental to system reliability and unnecessarily increase generation costs. By placing an obligation on generators to address all current and potential network issues, rather than creating a framework that supports solutions being provided cost-effectively, there could be an over-engineering in generation technology. This ultimately increases costs for customers. It is therefore imperative that the AEMC finalise current reviews on managing the NEM to first identify network requirements and then develop cost-effective solutions. Taking a considered and holistic approach will ensure the system remains both resilient and affordable for customers.

If you would like to discuss this submission, please contact Georgina Snelling on (03) 8628 1126.

Regards

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