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Mr John Pierce AO
Chair - Australian Energy Market Commission
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Dear Mr Pierce

Mandatory primary frequency response – Rule change – Consultation paper

The Australian Energy Regulator (**AER**) welcomes the opportunity to comment on the Australian Energy Market Commission's (**AEMC**) 'Mandatory primary frequency response rule' Consultation Paper.

We consider that the deterioration of frequency performance of the power system is a significant issue as raised by the Australian Energy Market Operator (**AEMO**) in its rule change as well as the AEMC in its July 2018 *Frequency control frameworks review*.

While we agree that the issue of frequency performance needs to be addressed, we have concerns with the proposal to address this by introducing mandatory primary frequency response (**PFR**) by all capable generators. Our concerns relate to the cost and effectiveness of a mandatory approach relative to other alternatives, and the appropriate governance framework for determining a primary frequency response requirement (**PFRR**). It is important when evaluating these proposals that the AEMC examines the relative costs and benefits of mandatory and market-based approaches to the delivery of PFR, how quickly they can be implemented as well as any short- and long-term impacts.

The consultation paper raises the issue that concerns regarding compliance with dispatch targets may be discouraging participants from offering primary frequency response. We confirm that the AEMC accurately highlights the AER's *Compliance and enforcement statement of approach* as relevant and that the AER would take into consideration whether generators' governors are responding in the way they are supposed to, in compliance with their other regulatory requirements under the National Electricity Rules (**NER**).

Mandatory approach relative to other alternatives

Overall, we consider that a market-based approach (which includes contracts for services) to PFR provision is likely to be more efficient, more cost effective, and provide the right long-term signals. This is based on the principle that where the cost structures faced by different generators in providing frequency control differ, a market-based approach will elicit the lowest-cost options first (up to the required level). In contrast, a mandatory approach does

not support the provision of services by those best placed to provide them (at lowest cost) and runs the risk of over procuring more of the service than required. In the long-term, a market-based approach would allow for generators providing PFR to be remunerated for the costs of providing PFR and provide incentives to support efficient investment in the necessary services.

A mandatory PFR obligation would also lead to upfront and ongoing costs relating to the monitoring of operational PFR compliance—in addition to the current obligation to comply with dispatch instructions. This would require the PFR characteristics of each generator to be recorded in order to assess this compliance and may require the installation of high speed monitoring equipment for verification purposes, and associated protocols for data retention.

In terms of preferred approaches, we consider that some of the potential alternative solutions posed by the AEMC in the consultation paper would deliver the same improvements in frequency performance but at a lower cost to consumers, and provide effective long-term market signals for the provision of these services. Specifically, the options for generators to respond to locally measured frequency when providing regulation FCAS, and the revision of the 'causer pays' procedure to introduce a two-sided incentive mechanism for the provision of PFR represent two readily achievable changes to the existing framework which should provide long-term benefits to frequency performance.

We understand that AEMO has proposed a mandatory approach because it considers this quicker to implement than alternative methods, and that the nature of this problem requires an urgent response. However, we consider that the proposed approach may also involve delays as changes to some generator plant may require reopening of registered Generator Performance Standards (**GPS**), and with this, modelling of the plant changes. We understand that some delays in connection of new generation are occurring as a result of difficulties in modelling the technical performance of plant, which highlights the non-trivial nature of this issue. Additionally, assessing the cost claims of generators and applications for exemption is likely to be a lengthy process which could add further delays to implementing a mandatory approach.

While we are of the view that the short-term efficiencies and long-term benefits of a market-based approach would outweigh those of a mandatory approach, we acknowledge there are likely to be some costs involved in setting up a market-based approach to PFR. We also note that the option to procure PFR via contracts, similarly to Network Service Providers (**NSPs**) contracting for network support and control ancillary services (**NSCAS**) represents an alternative solution to support frequency performance in the interim.

In assessing these proposals, we consider it important for the AEMC to carefully consider the costs and benefits of these approaches, how quickly they can be implemented as well as any short- and long-term impacts. As set out above, our view is that a regulated approach is likely to over-provide and result in higher costs when compared to a market-based approach that is more likely to reveal an efficient price and drive decision-making by individual generators.

We also note the Australian Energy Council (**AEC**) has put forward an interim solution for some generators to voluntarily provide PFR for a trial period. This appears to be a practical and pragmatic solution that can be quickly implemented to address the urgency of this issue. This interim solution will allow time for further study of the issue, including how much PFR is required to restore frequency performance to acceptable levels—which is not currently well understood. Such a trial approach was recommended by the AEMC in its 2018 review. This will be informed by the AER's new quarterly reporting obligations on FCAS markets—the AER's reporting on FCAS will help market institutions and stakeholders form a view on what might be a more appropriate long-term solution.

Narrowing of the frequency response deadband

Additionally, the rule change request proposes that the PFRR will be determined by the Australian Energy Market Operator (**AEMO**). We consider that the specification of the PFRR is better suited to the Reliability Panel given their role to determine the standards required to deliver a secure, reliable and safe power system in the most efficient way in order to minimise costs for consumers. It is also consistent with their role in determining the frequency operating standard and system restart standard.

In summary, we encourage the AEMC, whilst acknowledging the urgency of the issue, to carefully consider:

- the costs associated with a mandatory approach, and whether it will achieve the aims that AEMO is seeking;
- the merits of the proposed AEC interim solution as an urgent and practical means to address the frequency issue, and;
- the benefits of introducing a market-based approach over the medium to longer term rather than a regulated approach in terms of both efficiency and ease of implementation.

We thank the AEMC for the opportunity to submit on this process. If you have any questions about our submission, please contact Chris Ridings (08 8213 3487).

Yours sincerely,



Mark Feather
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Australian Energy Regulator