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Submitted online to [www.aemc.gov.au](http://www.aemc.gov.au)

31 October 2019

Dear Mr Hiron,

**Primary Frequency Response Rule Changes – Consultation Paper ERC0277**

ENGIE Australia & New Zealand (ENGIE) welcomes the opportunity to contribute to the development of the primary frequency control rule change.

ENGIE is a global energy operator in the businesses of electricity, natural gas and energy services. In Australia, ENGIE has interests in generation, renewable energy development, and energy services. ENGIE also owns Simply Energy which provides electricity and gas to more than 720,000 retail customer accounts across Victoria, South Australia, New South Wales, Queensland, and Western Australia.

ENGIE is an active member of the Australian Energy Council (AEC) and fully supports the Council's submission on the following design elements:

- The uncompensated appropriation of a valuable service is oppressive, runs counter to market philosophy, is economically inefficient, and, in the long-term, unsustainable.
- The rule change proposals reach to solutions before defining their desired outcomes nor fully analysing the risks in such solutions.
- The rule change proposals conflate two entirely separate issues: resilience to major disturbance and steady-state stability. These are best considered, and resolved, separately.
- Rule changes will distort the existing Frequency Control Ancillary Services (FCAS) markets.



- The proposed causer-pays relief will destroy the valuable signal this mechanism creates that encourages dispatch conformance and which drive investment in innovative battery-renewable energy combinations.

ENGIE has a number of assets in the South Australian region, namely Pelican Point CCGT and Synergen (Dry Creek, Mintaro and Snuggery) open cycle gas turbines. All these assets have made their as designed primary frequency control response, available to the market.

ENGIE would like to make several additional points in relation to risk, unintended consequences and commercial considerations.

### **High risk of unintended consequences, 50mHz frequency dead band**

The proposed tightening of the frequency dead band from 500mHz to 50mHz (i.e. +/- 25 mHz) requires more work to establish that it is in fact warranted, and if so, assess how individual units would be affected.

A tighter dead band maybe appropriate for a large system with many generating units; however, it is likely to be ill suited to a relatively small system with a skinny transmission system from end-to-end.

Tightening of the dead band can bring about unintended system oscillations and compromise system steady state stability and system resilience.

The governor droop requirements also need careful consideration as overactive response can lead to other problems and instabilities. Due to a commissioning oversight, one of Pelican Points GT turbine was set with frequency response settings intended for larger sized grids and was thus overactive in the South Australian region. This setting was discovered following a system frequency excursion which caused the unit to over respond and experience a flameout as a consequence.

It is therefore essential that the rules are developed in a manner that doesn't place onerous response obligations on registered units which serve to conflict with/ or compromise the delivery of other generator technical standards such as fault ride through.

ENGIE emphasises that holistic modelling of the proposed arrangements is essential, including impacts on specific units to ensure that system stability and security are not compromised as a result.

### **Unmanageable commercial and regulatory risks**

The preceding section introduced the concept of additional unintended risks by selecting inappropriate performance standards. Such an approach also introduces risks of regulatory breaches and potential fines by the market regulator.

In addition, the increased risks of loss of plant during system disturbances increases risks of large financial losses (i.e. plant tripped off at a time of very high prices).

Contract liquidity could be impacted, or in the extreme, plant may exit the market prematurely due to increased risks and reduced revenues. Transmission augmentations will further stress revenue adequacy of low capacity factor plant.

**Unintended impact of commercial viability**

ENGIE reiterates that any proposed changes must be made in a holistic manner and rely on market signals and responses. Contracting with some parties for out-of-the market services is likely to lead to the undermining of existing market signals and reduce commercial viability of uncontracted plant which would be left without additional sources of revenue.

The current drafting of the rule change compromises existing market signals and by mandating provision of some services, also compromises economic efficiency of the NEM. ENGIE urges the AEMO to revisit the notion of a trial for next summer or tailoring new incentives to an amended service. This would reduce the perceived urgency of the current rule change and assist in developing holistic market-based arrangements that better reflect the NEO.

Should you have any queries in relation to this matter, please do not hesitate to contact me on, telephone, (03) 51 35 5040.

Yours sincerely,

**David Hoch**

Regulatory Strategy and Planning Manager