

31 October 2019

Mr John Pierce AO
Chair
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Electronic Submission – ERC0274

Consultation Paper – Primary Frequency Response rule changes

Dear Mr Pierce

Energy Networks Australia welcomes the opportunity to provide a response on behalf of our transmission members, to the AEMC's Consultation Paper on the Primary Frequency Response (PFR) rule changes.

Energy Networks Australia is the national industry body representing Australia's electricity transmission and distribution and gas distribution networks. Our members provide more than 16 million electricity and gas connections to almost every home and business across Australia.

One of the key changes proposed is the introduction of a mandatory obligation for all registered generators in the national electricity market to help to control power system frequency.

The Consultation Paper notes:

“Under the current arrangements, frequency response is only required by those market participants that are enabled to provide frequency control ancillary services (FCAS) through the related ancillary service markets. However, AEMO considers that the decline in frequency performance has reached a point where there is now an immediate need for additional frequency response to restore effective frequency control in the NEM to maintain the safety, security and reliability of the power system.”

Energy Networks Australia agrees that frequency control deterioration is a significant and immediate issue for the power system and should be addressed expeditiously. Energy Networks Australia therefore supports the AEMC's prioritisation of the immediate need to restore effective frequency control in the NEM to maintain the safety, security and reliability of the power system.

Energy Networks Australia supports the proposal to develop a PFR mechanism to meet the immediate need for effective frequency control while limiting the costs associated with the implementation of such a mechanism to those costs that are necessary to meet the immediate system security need. To that end, Energy Networks Australia agrees that;

- » AEMO develops criteria to assess whether it is uneconomic for a generating plant to comply with the mandatory PFR requirement; and
- » That the mandatory PFR requirement be technology neutral.

Where there are assets currently connected to the power system that can deliver PFR these assets should be required to provide those services.

The potential for a future market for primary frequency control services should be explored in the ESB post 2025 market design more holistically than through more narrowly focussed AEMC processes. A market mechanism may be required to send investment signals for capital expenditure to provide primary frequency control services as traditional sources of primary frequency control (synchronous generators) exit the market over time.

Inertia and inertia support arrangements in the NER

Energy Networks Australia does not support the proposed changes to the definition of inertia in Chapter 10 of the NER. The intent should be to differentiate traditional inertia provided by rotating machinery from fast frequency response which may be delivered from other energy sources such as inverter connected equipment. Inertial response provided by rotating equipment is an instantaneous response. In contrast fast frequency response has some response latency and is not an interchangeable service. It is important that the reference to electro-magnetic coupled remain in the inertia definition.

The proposed rule changes include a new rule 5.20B.5 (g) with a Note:

Note If approved by AEMO under paragraph (a), inertia support activities may include installing or contracting for the provision of *frequency* control services, installing emergency protection schemes or contracting with *Generators* in relation to the operation of their *generating units* in specified conditions, including fast frequency response from inverter-connected plant.

This is a copy of the Note under 5.20B.5 (a) with the addition of “including fast frequency response from inverter connected plant”.

Rather than include the footnote under sub clause (g) and a variation under sub clause (a), Energy Networks Australia suggests that the definition of inertia support activity be amended to the following:

Inertia support activity

An activity approved by *AEMO* under clause 5.20B.5(a) which may include installing or contracting for the provision of *frequency* control services, installing emergency protection schemes, contracting with *Generators* in relation to the operation of their *generating units* in specified conditions, and installing or contracting fast frequency response delivered from inverter connected equipment.

Energy Networks Australia looks forward to engaging with the AEMC as the rule changes progress.

Should you have any queries on this response please feel free to contact Verity Watson, vwatson@energynetworks.com.au.

Yours sincerely,



Andrew Dillon

Chief Executive Officer