

16 January 2018

Brian Spalding  
Chairman  
Reliability Panel  
c/- Australian Energy Market Commission (AEMC)  
PO Box A2449  
Sydney South NSW 1235

By online submission

Dear Mr Spalding

### **Review of the Frequency Operating Standard – Stage Two, Draft Determination (REL0065)**

Hydro Tasmania welcomes the opportunity to provide comment on Reliability Panel's Review of the Frequency Operating Standard (FOS) Stage Two Draft Determination.

Hydro Tasmania's submission focuses on issues contained in Section 4.1 of the Draft Determination which discusses the limit on the largest generation event in Tasmania. This topic has two separate but related parts which must be considered carefully: proposed update in the wording of the definition of a generator event; and a review of the actual MW limit that applies to contingency events in Tasmania.

#### *Definition of generation event*

**Hydro Tasmania supports the proposed changes to the definition of a generation event for the following reasons:**

- The change will clarify that a generation event can include the disconnection of generation as the result of a credible contingency in respect of a single generating system or a single dedicated connection asset, providing connection to one or more generating systems. This definition is intended to cover generating systems connected to the shared transmission network via single circuit transmission elements. Hydro Tasmania supports this definition applying only to new connections.
- The proposed change to the definition of a generation event is consistent with the changes to the National Electricity Rules (NER) introduced through the Transmission Connection and Planning Arrangements Rule 2017. As noted in the Draft Determination, the Transmission Connection and Planning Arrangements Rule introduced the concept of a dedicated connection asset, which includes the collection of components that are used to connect a connecting party to the shared transmission network. The equipment and plant on the generator side of a connection point includes any dedicated connection asset, such as a

dedicated transmission element, along with the generating system itself.

#### *Generator event size limit*

**Hydro Tasmania supports the retention of the 144 MW generator event size limit for the following reasons:**

- Modelling undertaken by Hydro Tasmania indicates that by increasing the event size limit from 144 MW to 155 MW will disproportionately increase the Tasmanian Fast Raise (R6) FCAS requirement. Hydro Tasmania also notes that the future connection of large variable renewable generators into the Tasmanian system will result in less synchronous generation to be available to help manage frequency. The combination of these two scenarios may lead to inefficient market outcomes and increased system security issues for the Tasmanian system. It is therefore appropriate that the 144 MW generator event size limit is maintained.
- Existing arrangements have recognised that the occurrence of an event exceeding the current limit, such as the loss of Musselroe wind farm under full output, would be relatively rare. With additional windfarms in Tasmania, changing the generator event size limit upwards from its current setting of 144 MW would make this operating state normal practice rather than an exception. As noted above, Hydro Tasmania supports that the proposed changes to the definition of a generation event are applied only to new connections and would therefore not apply to the Musselroe wind farm. Exemption for Musselroe is appropriate given the investment decision was made under the existing definition and the rare occurrence of exceeding the maximum generation event.

#### *Future Tasmanian system*

The Tasmanian system may change significantly over the medium to longer term. The *Battery of the Nation* initiative is considering the potential for future renewable energy developments through wind and hydropower system expansion including pumped hydro as well as more transmission and interconnection. Through Project Marinus, TasNetworks is examining the viability of a second interconnector between Victoria and Tasmania and is presently assessing either a 600 MW or 1,200 MW interconnector. Hydro Tasmania has released analysis which indicates that there is 4,800 MW of pumped hydro energy storage potential in Tasmania. If implemented, the developments proposed under *Battery of the Nation* would significantly change the supply and demand balance in Tasmania and would likely require a review of the FOS. While making changes to the FOS in anticipation of potential developments would be inappropriate at this point in time, Hydro Tasmania recommends that the Reliability Panel note the potential changes that the *Battery of the Nation* initiative would bring and consider what an appropriate trigger may be to re-examine the Tasmanian FOS when there is more certainty of the potential changes. For example an appropriate trigger may be when final investment decisions are made on Project Marinus or pumped hydro developments.

If you would like further information on any aspect of this submission, please contact John Cooper ([john.cooper@hydro.com.au](mailto:john.cooper@hydro.com.au) or (03) 6230 5313).

Yours sincerely



Allan Jones

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