

16 January 2019

Mr Brain Spalding
Chairman
Reliability Panel
PO BOX A2449
Sydney South NSW 1235

Via email: aemc@aemc.gov.au

Dear Mr Spalding,

RE REL0065 – REVIEW OF THE FREQUENCY OPERATING STANDARD (STAGE TWO)

TasNetworks welcomes the opportunity to make a submission to the Reliability Panel (**Panel**) on the draft determination of the second stage of the frequency operating standard consultation Paper.

As the Transmission Network Service Provider (**TNSP**), Distribution Network Service Provider (**DNSP**) and jurisdictional planner in Tasmania, TasNetworks is focused on delivering safe and reliable electricity network services while achieving the lowest sustainable prices for Tasmanian customers. This requires the prudent, safe and efficient management and development of the Tasmanian power system. TasNetworks is therefore supportive of Panel's efforts to improve power system security standards, including the frequency operating standards (**FOS**), applicable in Tasmania and the National Electricity Market (**NEM**) more broadly.

The Limit on the Largest Generation Event in Tasmania

TasNetworks supports the changes proposed by the Panel including maintaining a system design generation contingency size of 144 MW. Extending the definition of 'generation event' to include 'dedicated connection assets' is an appropriate mechanism to manage the size of credible contingency events in the Tasmanian region.

The key advantage of the proposed approach is that it makes it clear what transmission assets the generator is responsible for in avoiding a generation contingency size in excess of 144 MW. Rather than being expected to strengthen the shared network to manage system Frequency Control Ancillary Services (**FCAS**) requirements, the proposed changes make generators responsible only for their own connection arrangements. In this manner, the design and/or construction cost(s) of additional transmission infrastructure to support connection to the shared network can be better weighed against the alternative of implementing a Generator Contingency Scheme (**GCS**), which would automatically shed contracted load to cap FCAS raise requirements to the equivalent of a 144 MW contingency.

TasNetworks notes that there could be a situation where connection of a new generating system results in a generator contingency size in excess of 144 MW, despite being compliant with the updated FOS. For instance, due to limited network connectivity through the shared network. Conceptually, the following approach would be adopted in such a case.

- TasNetworks would proceed with the connection of the new generating system recognising that, in the absence of mitigation measures, FCAS raise requirements would at times increase.
- In consultation with the Australian Energy Market Operator (**AEMO**), TasNetworks would assess the market impacts of the increased FCAS requirements¹.
- The assessed market impacts would be weighed against the cost of credible mitigation options to determine whether a net market benefit existed. If so, this analysis would form the basis of a Regulated Investment Test for Transmission (**RIT-T**) application to implement a cost effective, technically suitable solution to be included within TasNetworks' Regulated Asset Base (**RAB**).

For the reasons documented on page 14 of the consultation paper, the Musselroe Wind Farm (**MRWF**) connection arrangement avoids it being covered by the definition of a generation event. TasNetworks reiterates that it does not intend to pursue retrospective application of the new FOS to MRWF. As a general principle, TasNetworks does not support the retrospective application of any new regulatory requirement given the equity implications. It has therefore always been TasNetworks' intention to appropriately manage future network connections, and thereby avoid increased exposures to high FCAS requirements, rather than attempt to 'clawback' the situation as it currently stands in Tasmania.

Settings in the FOS for Credible Contingency Events

TasNetworks agrees with the advice provided by AEMO on credible contingency events. Widening of the generation and load change bands, particularly when there are a number of ongoing work programs focused on frequency control in the NEM, would remove safety margins for stabilisation and recovery following contingency events. TasNetworks therefore supports the retention of the existing settings in the FOS that relate to the management of contingency events.

The Limit on Maximum Accumulated Time Error

TasNetworks has been assisting AEMO with various activities associated with the investigation of Automatic Generation Control (**AGC**) performance and the interaction with primary frequency control capability residing on FCAS capable generating units. For instance, and as noted in the draft determination, a successful primary frequency control trial was completed in the Tasmanian region during May 2018. While the ability of AEMO to manage time error in the Tasmanian region continues to vary, TasNetworks agrees with the Panel that the current 15 second limit should be retained until such time as the outcomes from various ongoing work streams can be adequately assessed.

Improvements to the Structure and Consistency of the FOS

TasNetworks supports the new FOS structure which better integrates the mainland and Tasmanian frequency operating standards into a single document. TasNetworks' experience is that intending network participants have at times been unaware, or uncertain, of the specific frequency control requirements pertaining to the Tasmanian region. TasNetworks considers that the revised formatting is likely to address such situations by presenting the two 'sets of standards' in a more holistic manner.

¹ It should be noted that although retrospective analysis of actual market outcomes is achievable, simulation of credible forward looking market impacts, i.e. before a new physical network connection is actually made, is a non-trivial exercise when the interaction between FCAS and energy markets is properly considered.

Beyond these considerations, TasNetworks notes that the Tasmanian gas supply contract is up for renegotiation in the medium term. Were this to result in the AETV gas fired power station being permanently decommissioned, this would represent an appropriate point of review for the Tasmanian FOS given the implications for the Tasmanian network.

TasNetworks would welcome the opportunity to discuss this submission further with you. Should you have any questions, please contact Andrew Halley, Principal Operations Engineer, Network Planning and Performance via email (andrew.halley@tasnetworks.com.au) or by phone on (03) 6271 6759.

Yours sincerely,

A handwritten signature in blue ink, appearing to read 'W. Tucker', with a long horizontal flourish extending to the right.

Wayne Tucker

General Manager, Regulation, Policy and Strategic Asset Management