

Review of the frequency operating standard

Draft determination published for stage two of the review of the frequency operating standard

The Reliability Panel has published a draft determination for stage two of the review of the frequency operating standard (the FOS) that applies to power system frequency in the National Electricity Market.

Review of the frequency operating standard

The Reliability Panel (Panel) is undertaking a review of the FOS that applies for Tasmania and for the mainland NEM. The FOS defines the acceptable frequency range for different operating states or following events that can occur within the power system.

This review has been undertaken in two stages to accommodate interactions with related work programs.

Following completion of **stage one** of the review in November 2017, the AEMC requested that the Panel postpone its consideration of stage two of the Review of the Frequency operating standard while the Commission progressed its Frequency control frameworks review.

The Panel's intent for **stage two** of the FOS review is to assess and resolve the remaining issues identified in stage one of the review, except for the following issues that are being considered by the AEMC as part of its ongoing frequency control work program following on from the *Frequency control frameworks review*:

- Reviewing the requirements in the FOS for frequency performance during normal operation
- Consideration of the inclusion in the FOS of a standard for the rate of change of frequency in the power system.

The draft FOS

The Panel has made a draft FOS for Tasmania and for the mainland, which responds to a number of issues that were identified through stage one of this review. The draft FOS differs from the current FOS in the following ways:

The limit on the size of the largest generation event in the Tasmanian power system

The draft FOS includes revisions that clarify the scope of the existing 144MW limit in relation to the largest generation loss event that is accounted for by AEMO in the operation of the Tasmanian power system.

This limit was included in the FOS by the Panel following the 2008 review of the FOS for Tasmania. In the context of the operational limitations of the Tasmanian power system, it limits the quantity and cost of contingency FCAS required to manage larger contingency events in the Tasmanian system. In effect, it sets a limit on how much FCAS AEMO will procure to manage the loss of a generator in Tasmania.

The particular changes in the draft FOS in relation to this issue include:

- The definition of a generation event includes the disconnection of generation in relation to any asset that is not part of the shared transmission network, and which provides connection of a generating system to the shared transmission network. This includes the failure of a dedicated connection asset. A dedicated connection is a privately owned line that connects the generator to the shared network.

- Clarification that the limit for the largest generation event in the Tasmanian system applies for disconnection of generation based on an initially intact network, in the absence of network outages. This means that the limit does not apply in the event of planned network outages; AEMO has established operational procedures to manage the need for contingency FCAS at these times.

Stakeholders are invited to comment on the Draft FOS for stage two of the review.

Submissions are due by 17 January 2019

Improvements to the structure and consistency of the FOS

The draft FOS has been restructured and consolidated to avoid duplication and improve the clarity of the obligations that it places on AEMO to manage the power system frequency.

This draft determination also includes a summary of the Panel's considerations in relation to:

- the settings in the FOS that relate to contingency events
- the limit in the FOS on accumulated time error.

On the advice of AEMO, the Panel has maintained the existing settings in the FOS in relation to these issues, noting that immediate priority is the joint AEMC-AEMO frequency control work plan published as part of the final report for the Frequency control frameworks review. The Panel note that there is scope for further refinement of the FOS in subsequent reviews of the FOS.

The Panel invites stakeholder submissions on the Draft FOS by 17 January 2019.

For information contact:

AEMC Director, **Christiaan Zuur** (02) 8296 7883

AEMC Executive General Manager, **Suzanne Falvi** (02) 8296 7883

Media: Communication Director, Prudence Anderson 0404 821 935 or (02) 8296 7817

6 December 2018