

Final determination on System Restart Standard settings for Queensland

The Reliability Panel has published a final determination for its system restart standard review of the combined Queensland sub-network

The Reliability Panel (Panel) has published a final determination on amendments to the System Restart Standard (Standard) to guide AEMO's procurement of System Restart Ancillary Services (SRAS) in the combined Queensland sub-network.

Final determination

The Panel has published a final determination on quantitative Standard settings for a combined Queensland sub-network.¹ This review followed the Australian Energy Market Operator's (AEMO) decision to combine the existing North and South Queensland sub-networks into a single sub-network for the entire Queensland region.²

The Panel's final determination includes revised Standard settings for restoration level, restoration timeframe, and aggregate reliability for a combined Queensland sub-network. The Panel also included a requirement for AEMO to procure SRAS north of Bundaberg as an additional locational element of its draft determination in order to ensure the prompt restoration of the power system north of Bundaberg. The Panel's final determination is summarised in Box 1

BOX 1: FINAL DETERMINATION ON QUANTITATIVE STANDARD SETTINGS FOR A COMBINED QUEENSLAND SUB-NETWORK

The Panel has made a final determination for the following restoration level (MW), restoration time frame (hours), and aggregate reliability to apply to AEMO's procurement of SRAS in a combined Queensland sub-network.

Table 1: Final quantitative Standard settings for Queensland

RESTORATION LEVEL (MW)	RESTORATION TIMEFRAME (HOURS)	AGGREGATE RELIABILITY
1650	4	90%

The Panel has also made a draft determination to require AEMO to procure SRAS north of

- Bundaberg capable of restoring 825 MW of generation, within 4 hours, with an aggregate reliability of at least 80%

The Panel has determined these amendments to the Standard in accordance with the SRAS Objective, which is to minimise the expected costs of a major supply disruption, to the extent appropriate having regard to the National Electricity Objective. The Panel conducted an economic assessment using inputs from AEMO to identify efficient levels of

¹ The NEM is divided into sub-networks for the purpose of AEMO's procurement of SRAS. AEMO determines the sub-network boundaries in accordance with guidance set out in the Standard.

² AEMO, final determination - SRAS Guideline consultation, 16 October 2020. For further information see: <https://aemo.com.au/en/consultations/current-and-closed-consultations/sras-guideline-2020>

SRAS for procurement in a combined Queensland sub-network for this purpose. Outcomes from the Panel's economic assessment, combined with technical advice from AEMO, were then used to identify the Standard settings contained in Panel's final determination.

In addition to the final standard settings for restoration level, restoration time frame, and aggregate reliability, the Panel's final determination includes an additional locational requirement for AEMO to procure SRAS north of Bundaberg. The Panel has identified such a requirement to be consistent with the SRAS Objective to minimise the expected costs of AEMO's procurement of SRAS. The Panel considers the characteristics of the Queensland network to justify an explicit requirement for SRAS to be procured north of Bundaberg.

Background

SRAS are services that AEMO procures to help re-energise parts of the power system affected by a major supply disruption or black system event. Major supply disruptions and black system events are rare but not impossible events. The most recent black system event was in South Australia in September 2016. Prior to that event, two more have occurred in; northern Queensland in 2009; and New South Wales in 1964. SRAS are provided by facilities that can either self-start without drawing power from the network or support the stable restoration of the power system following its initial re-energisation. AEMO's procurement of SRAS can be likened to an "insurance policy" which minimises the economic disruption arising from a major supply disruption or black system event.

AEMO procures SRAS in accordance with the requirements set out in the Standard, which is determined by the Panel. The Standard provides qualitative guidance on a number of issues relating to SRAS, including the determination of electrical sub-network boundaries and the diversity and strategic location of SRAS sources. The Standard also prescribes quantitative settings applying to AEMO's procurement of SRAS, including the level of restoration, restoration time and required aggregate reliability for SRAS in each sub-network in the NEM

The NEM is divided into electrical sub-networks for SRAS procurement purposes. The NEM's regulatory framework provides AEMO with the authority to determine the boundaries of these sub-networks based on guidance in the Standard, and in consultation with stakeholders. On 16 October 2020, AEMO published a final determination to combine the two existing electrical sub-networks, being north Queensland and south Queensland, into a single subnetwork in the Queensland region of the NEM. The Standard applying at the time, which was determined by the Panel in December 2016, specified settings separately for the north Queensland and south Queensland sub-networks. Amendments to the quantitative settings for Queensland in the Standard was therefore required to ensure that the Standard is able to guide AEMO's procurement of SRAS for a single Queensland sub-network.

Next steps

The Standard that is the subject of this final determination becomes effective following its publication on 28 January 2021. AEMO will then procure SRAS in Queensland in accordance with the published Standard settings for the combined Queensland sub-network as part of its 2021 SRAS procurement process. Following the conclusion of AEMO's 2021 procurement round, the Panel intends to conduct a fulsome review of the Standard settings applying to all NEM sub-networks. The Panel will update stakeholders on the anticipated timing of this fulsome review during 2021.

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28 January 2021