



Annual market performance review 2015

Publication of final report

The AEMC Reliability Panel (Panel) has published a final report on the annual market performance review (AMPR) 2015. The final report examines the performance of the National Electricity Market (NEM) from 1 July 2014 to 30 June 2015 in terms of reliability, security and safety of the power system.

Overview

The Panel's assessment of the performance of the power system in the NEM in 2014-15 in terms of reliability, security and safety is:

- **Reliability:** The reliability of the power system in the NEM remained within the reliability standard in 2014-15. Specifically, there was no unserved energy for any NEM region in 2014-15. Consistent with this, the Australian Energy Market Operator (AEMO) was not required to issue any directions for reliability during 2014-15. Nor was it required to exercise the reliability and emergency reserve trader (RERT) mechanism during this period.
- **Security:** There were two incidents where frequency was outside the operating standards in 2014-15. These incidents were effectively managed and actions were taken, or are in the process of being completed, to address the issues identified. There were no instances where secure voltage limits exceeded 30 minutes in 2014-15. Similarly, AEMO did not draw on procured system restart ancillary services (SRAS). There were only two power system security directions in 2014-15, both of which were for Tasmanian generators.
- **Safety:** The Panel is not aware of any instances in 2014-15 where AEMO issued a direction and the directed participant elected not to comply on the grounds that complying with the direction would affect the safety of its equipment or personnel.,

Since the end of the 2014-15 reporting period, two major operating incidents have occurred in the NEM:

- the trip of the Heywood interconnector in November 2015; and
- the trip and outage of the Basslink interconnector in December 2015.

These incidents give rise to broader reliability and security developments and will be considered in more detail in the forthcoming 2016 AMPR.

Related to this, the AEMC recently initiated a review of market frameworks for power system security. This review will consider whether wholesale energy market frameworks are suitable to complement increasing volumes of renewable energy and to maintain power system security as the industry transforms.

Review process

The final report was preceded by a draft report released for public consultation on 16 June 2016. The Panel received one submission on the draft report which was from AGL. This can be found on the AEMC's website.

Background

Each year, the Panel undertakes a review of the performance of the power system in the NEM. To fulfil its obligations under the National Electricity Rules and an AEMC standing terms of reference, the Panel assesses performance in terms of reliability, security and safety of the power system for the purpose of the review.

The reliability of the power system in the NEM remained within the reliability standard in 2014-15.

Reliability of the power system

Reliability of the power system relates to whether there is sufficient capacity to generate and transport electricity to meet all consumer demand.

The Panel measures the reliability of the NEM by reference to the reliability standard and, in particular, the amount of unserved energy (USE). The measure of USE refers to an amount of energy that is required by customers but cannot be supplied. The reliability standard is set by the Panel at a maximum permissible USE of 0.002 per cent per region or regions per financial year.

To assess against the reliability standard, the "bulk transmission" capacity of the NEM is taken to equate to the interconnector capability. As such, the reliability standard does not take into account USE that is caused by outages of local transmission or distribution elements that do not significantly impact the ability to transfer power into the region where the USE occurred.

Security of the power system

Security of the power system refers to maintaining power system equipment within their technical operating limits. Maintaining security of the power system also includes adhering to the frequency operating standards which are set by the Panel. Security issues are typically managed directly by AEMO and network operators.

Safety of the power system

Safety of the NEM relates to a wide range of issues, including the safe operation of equipment, and the safety of personnel and the public. There is no national safety regulator and each jurisdiction has specific safety provisions relating to transmission and distribution power systems.

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