

C NEM Reliability Standard – Generation and Bulk Supply

This Reliability Standard for Generation and Bulk Supply⁹⁹ was determined by the Reliability Panel (Panel) as part of its “Review of the Reliability Standard and Settings”, which completed in April 2010. This Reliability Standard forms part of the *power system security and reliability standards* and was determined in accordance with clauses 8.8.1(a)(2) and 8.8.3 of the National Electricity Rules (Rules).

Form of the Reliability Standard

The NEM Reliability Standard for Generation and Bulk Supply is expressed in terms of the *maximum expected unserved energy (USE)*, or the maximum amount of electricity expected to be at risk of not being supplied to consumers, per financial year. The USE is measured in GWh and should be expressed as a percentage of the annual energy consumption for the associated region or regions.

Level of the Reliability Standard

The maximum expected unserved energy (USE), or the maximum amount of electricity expected to be at risk of not being supplied to consumers, is **0.002%** of the annual energy consumption for the associated region or regions per financial year.

Performance Against the Reliability Standard

Performance against this Reliability Standard for Generation and Bulk Transmission should be considered using the actual observed levels of annual USE for the most recent financial year. Plant performance and demand characteristics that occurred in that financial year should be assessed to determine whether there are any underlying changes occurring.

Operational Implementation of the Reliability Standard

Operationally, it should be planned to achieve an expected USE that is within this Reliability Standard for Generation and Bulk Transmission in each financial year and for each region, which means that it should also be achieved for the NEM as a whole.

⁹⁹ This version of the Reliability Standard takes effect on 1 July 2012. The “NEM Reliability Standard – Generation and Bulk Supply – December 2009” is contained in Appendix D of the Review of the Reliability Standard and Settings, December 2009, and is available on the AEMC website.

Scope of the Reliability Standard

This Reliability Standard for Generation and Bulk Supply includes unserved energy associated with power system reliability incidents that results from:

- a single credible contingency on a generating unit or an inter-regional transmission element, that may occur concurrently with generating unit or inter-regional transmission element outages; or
- delays to the construction or commissioning of new generating units or inter-regional transmission network elements, including delays due to industrial action or 'acts of God'.

This Reliability Standard for Generation and Bulk Supply excludes unserved energy associated with power system security incidents that results from:

- multiple or non-credible contingencies;
- outages of transmission or distribution network elements that do not significantly impact the ability to transfer power into the region where the USE occurred; or
- industrial action or 'acts of God' at existing generating or inter-regional transmission facilities.