

SYSTEM SECURITY AND RELIABILITY ACTION PLAN 2019

Updated 19 December 2019

Two page infographic summarising system security and reliability work program.



SYSTEM SECURITY

A stable power system:
the power system operates within defined technical limits, even when a major power system element disconnects from the system

Underway

Frequency control work plan

Working with the ESB, AEMO and the AER on designing new, coordinated and lowest-cost ways to deliver frequency control services over the medium to longer term.

**Aug 2019
Final report**



Investigation into intervention mechanisms in the NEM

Evaluating the effectiveness of the interventions framework in light of the increasing use of directions by AEMO to manage system security, and recommending changes to the interventions framework.

**Feb 2020
Draft report**

Investigation into minimum system strength and inertia frameworks in the NEM

Evaluating the current frameworks for managing system strength and inertia and recommending any changes needed to reduce the costs of providing ongoing maintenance of power system security.

**April 2019
Final report**



Reliability Panel review of the frequency operating standard

The standard has been restructured and consolidated to avoid duplication and improve the obligations it places on AEMO to manage the power system frequency.

**Dec 2019
Final report**



Review of system black event in South Australia

Forward-looking assessment of what changes to regulatory frameworks are needed to manage new risks faced by the power system, drawing on what has been learned since the South Australian black system event in 2016.

**Mar 2020
Final determination**

Mandatory primary frequency response rule

Requiring generators to respond automatically to changes in power system frequency.

**May 2019
Final determination**



Improving intervention compensation and settlement processes rule

Rules to improve administrative processes related to AEMO's interventions in the market, for example the way generators are compensated after a direction to help maintain system security or reliability.

**Dec 2019
Final determinations**



Increasing consistency in application of intervention pricing

Creating consistency in the pricing approach used when AEMO activates the RERT or issues a direction, and clarifying when AEMO is to use intervention pricing.

**Apr 2020
Final determination**

Improving the provision of system restart ancillary services

Updating the arrangements under which the services that "jump start" the power grid after a system black are provided, including more rigorous testing processes.

**June 2019
Final determination**



Reliability Panel assessment of protected event request

Request by AEMO to declare the risk to South Australia's power system from destructive winds as a "protected event".

**Dec 2019
Final report**



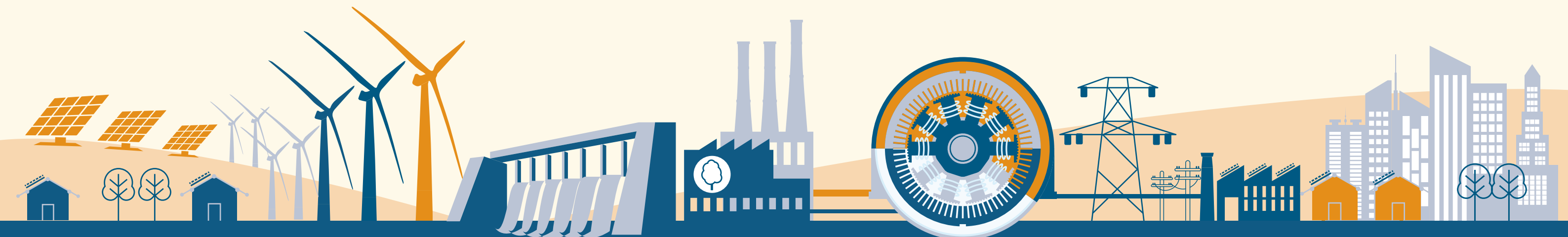
Reliability Panel Generator compliance template review

Updating the template to incorporate recent changes to generator technical performance standards and improve clarity and usability.

**Sep 2020
Draft determination**

Incentives for primary frequency response rule

Developing mechanisms or arrangements to increase the provision of primary frequency response, to help manage frequency deterioration.



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WHOLESALE RELIABILITY

Enough capacity to meet demand: having sufficient generation and demand response capacity to supply customer needs

Underway

AEMC/AEMO/AER virtual power plant trial

Trial to inform changes to regulatory frameworks and operational processes so VPPs can play a bigger role in the energy market. In Australia grid-connected VPPs are focussed on coordinating rooftop PV and battery storage.

**Apr 2019
Final determination**

Early implementation of ISP priority projects rule

Streamlining the regulatory processes for key time-critical projects identified in AEMO's Integrated System Plan.

**May 2019
Final determination**

Enhancement to the RERT rule

Boosting the NEM's emergency reserve – the Reliability and emergency reserve trader mechanism.

**Aug 2019
Final report**

Definition of unserved energy project

Reliability Panel project to clarify and simplify the definition of unserved energy used in post-event analysis of supply interruptions.

**Oct 2019
Final determination**

Transparency of new projects rule

Enhancing publically available information about new generation projects, as well as allowing developers of these projects to register with AEMO to get access to key technical information such as network modelling data.

**Dec 2019
Final determination**

Demand management incentives for transmission businesses rule

Development of demand management incentives to apply to transmission businesses.

**Early 2020
Consultation paper**

Integrating energy storage systems in the NEM

Seeks to recognise and define energy storage systems in the rules and provide a framework that supports their participation (and business models where there are a mix of technology types behind a connection point).

**Feb 2020
Final determination**

Changes to medium term reliability forecasting rule

Seeks changes to the medium term projected assessment of system adequacy (MT PASA) - a forecasting exercise to assess whether electricity supply is expected to meet demand across a two year horizon.

**Feb 2020
Consultation paper**

Generator registration thresholds rule

Reducing the threshold for registration as a generator from 30 MW to 5 MW.

**Mar 2020
Final determination**

Victorian jurisdictional derogation on RERT contracting

Proposal to introduce multi-year emergency reserve contracts in Victoria on an interim basis.

**Mar 2020
Final report**

Reforms to access arrangements review (COGATI)

Developing draft rule change requests to progress the proposed access model to change how generators access and use the network.

**Mar 2020
Second draft determination**

Wholesale demand response rule

Seeks to introduce a new mechanism to enable more wholesale demand response.

**Apr 2020
Consultation paper**

Transparency of unserved energy calculation rule

Seeks to clarify and simplify the definition of unserved energy used in post-event analysis of supply interruptions.

**Jun 2020
Final report**

Reliability Panel annual review of market performance

Review of the performance of the national electricity market in terms of security, reliability and safety over 2018-2019.

Pending completion of access review

Reforms to transmission charging review (COGATI)

Developing rule change requests to improve the inter-regional transmission charging regime so that it adequately attributes the cost of interconnectors to those who benefit from them.

