


# AUSTRALIAN ENERGY MARKET COMMISSION

## SYSTEM SECURITY AND RELIABILITY ACTION PLAN

Updated 17 December 2020

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

**Mar 2020 Final determination** ✓

**Mandatory primary frequency response**  
Requiring generators to respond automatically to changes in power system frequency.

**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.

**Sep 2020 Final determination** ✓

**Removal of intervention hierarchy**  
Provides AEMO with flexible principles to select the intervention mechanism, or combination of mechanisms, that minimise the cost and maximise the effectiveness of an intervention.

**Sep 2020 Final determination** ✓

**Changes to intervention mechanisms**  
Removing the mandatory restrictions framework, the obligation on AEMO to counteract during an intervention and clarifies the affected participant compensation cost recovery arrangements.

**Oct 2020 Final determination** ✓

**System restart standard review 2020**  
Reviewing the system restart standard to account for changes made to the types of services AEMO can procure as system restart ancillary services.

**Oct 2020 Final report** ✓

**Investigation into system strength frameworks in the NEM**  
Evaluating the effectiveness of the system strength framework and its ability to effectively and efficiently address system strength issues in the NEM.

**Dec 2020 Final determination** ✓

**Compensation following directions for services other than energy and market ancillary services**  
Improving the administrative efficiency of the process to determine compensation following directions for services other than energy and market ancillary services.

**Underway**

**Reserve services rule changes**  
Working with the ESB, AEMO and the AER to develop arrangements to efficiently value reserves in the NEM so there are sufficient levels and types of reserves available when needed to respond to unexpected changes in supply and demand.

**Underway**

**Frequency control rule changes**  
Working with the ESB, AEMO and the AER on designing new, coordinated and lowest-cost ways to incentivise fast frequency and primary frequency response services to be provided over the medium to longer term.

**Feb 2021 Draft determination**

**Implementing a general power system risk review**  
Delivering a process for transparently assessing and identifying emerging risks to power system security.

**Mar 2021**

**Synchronous services markets and capacity commitment mechanism for security and reliability**  
Considering arrangements to procure synchronous services, such as system strength and inertia, informed by the ESB's thinking as part of its Scheduling and ahead mechanisms and Essential system services market development initiatives.

**April 2021**

**Efficient management of system strength**  
Evolving the system strength frameworks to allow transmission networks to be more proactive in providing services that help keep the power system stable.

**Apr 2021 Draft determination**

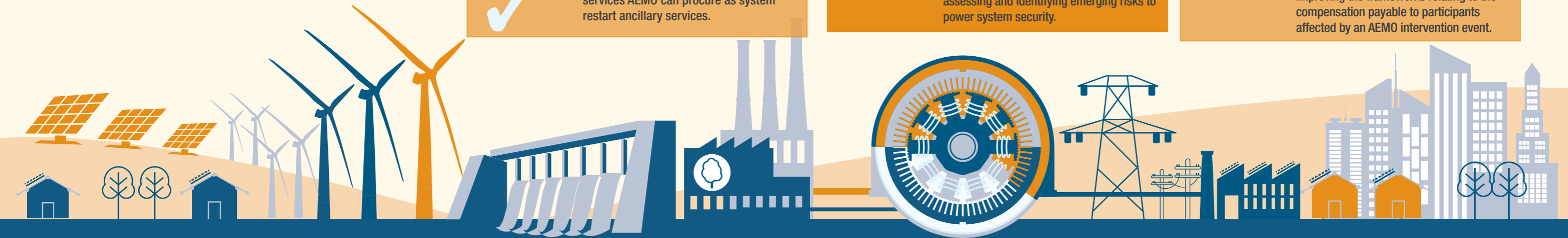
**Prioritising arrangements for system security during market suspension**  
Providing AEMO with appropriate flexibility to prioritise arrangements for system security during a period of market suspension.

**April 2021 Draft determination**

**Enhancing operational resilience in relation to indistinct events**  
Providing AEMO with mechanisms to enhance power system resilience to indistinct events under abnormal conditions.

**Aug 2021 Final determination**

**Compensation for market participants affected by intervention events**  
Improving the frameworks relating to the compensation payable to participants affected by an AEMO intervention event.



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## WHOLESALE RELIABILITY

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

**Mar 2020**  
Final determination

**Victorian jurisdictional derogation on RERT contracting**  
Introducing multi-year emergency reserve contracts in Victoria on an interim basis.

**Jun 2020**  
Final determination

**Wholesale demand response mechanism**  
Introducing a new mechanism to enable more wholesale demand response for large customers.

**Sep 2020**  
Interim report

**Transmission access reform review**  
Reflecting stakeholder feedback to ensure the core features of locational marginal pricing and financial transmission rights are fit for purpose for the NEM.

**Nov 2020**  
Final determination

**Transparency of unserved energy calculation**  
Clarifying and simplifying the definition of unserved energy used in post-event analysis of supply interruptions.

**Dec 2020**  
Market performance update

**Reliability Panel annual review of market performance**  
Annual review of the performance of the national electricity market in terms of security, reliability and safety.

**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 focused on coordinating rooftop PV and battery storage.

**Feb 2021**  
Draft determination

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

**Feb 2021**  
Consultation paper

**Reliability Panel review of the reliability standards and settings guidelines**  
Reviewing the guidelines that set out the principles and assumptions that the Panel will apply when it conducts its next review of the reliability standard and settings.

**Apr 2021**  
Draft determination

**Integrating energy storage systems into the NEM**  
Recognising and defining energy storage systems in the rule and providing a framework that supports their participation and that of business models where there are a mix of technology types behind a connection point.

**Apr 2021**  
Consultation paper

**Reliability Panel Reliability standard and settings review 2022**  
Ensuring the Reliability Standard and settings remain suitable and continue to meet the requirements of the market, market participants and consumers.

