



## System restart services, standards and testing final determination

The AEMC has made a final rule to improve the processes for restoring supply to customers following a major blackout

The Commission is aware of the additional pressures being placed on the energy sector as the nation responds to the fast moving COVID-19 threat. It is important in these times that Australia's energy systems and markets are operating in a safe and secure state with adequate consumer protections, including that mechanisms are available to overcome major disturbances or shocks to the power system. The implementation of this rule change is therefore critical in order to manage system security concerns.

The final rule makes changes to the frameworks for the procurement, testing and deployment of system restart ancillary services (SRAS) that need to take effect prior to the procurement of the next round of SRAS contracts by AEMO. These changes will allow AEMO, transmission network service providers (TNSPs) and other parties involved in the restoration of the power system to more effectively prepare for, and respond to, a major supply disruption, increasing the likelihood that energy supply can be restored promptly following a major blackout.

More generally, the AEMC is working closely with our colleagues at the Australian Energy Regulator and the Australian Energy Market Operator to consider the implications of the COVID-19 threat for broader implementation timeframes.

### Background

SRAS is a service traditionally provided by generators with the ability to start, or remain online, without drawing electricity from the grid. SRAS providers help to kick-start the power system by providing energy to other generators following a major blackout, which in turn restore supply to consumers.

Changes in the generation mix and the physics of the power system mean that the existing NER frameworks for SRAS need to be evolved. This is needed to address a number of emerging challenges, which may make it harder to prepare for major blackouts and to restore the power system if such an event occurs. The factors contributing to these challenges include:

- the number of available SRAS providers has decreased in some NEM regions, and those that remain are potentially less capable of effectively commencing the process of restoring the power system
- the SRAS frameworks have not historically encompassed the ancillary services that are needed to support the stable restoration of the power system, meaning these services could not be formally procured as SRAS by AEMO
- physical testing of system restart paths is needed to compliment existing modelling and generator-level testing of SRAS, due to the ongoing transformation of the power system - however, there has been no clear regulatory framework to facilitate this testing under the NER

- greater clarity is required regarding the roles of AEMO, TNSPs and other parties involved in system restoration.

The Commission's more preferable final rule is in response to two rule change requests submitted by AEMO and the Australian Energy Regulator (AER) which sought to address the above issues.

### Overview of the final determination

The Commission's final determination makes changes to the rules to address these challenges, by providing AEMO with the tools that will be needed to effectively prepare for and respond to major supply disruptions in the future. The key elements of the final rule include:

- **Changes to the definitions of SRAS and black start capability:** The definitions of black start capability and SRAS have been expanded to allow AEMO to procure a broader range of services from generators and other types of plant, such as batteries. This will help AEMO access the services required to restore supply to consumers in a timely manner.
- **Clarification of the SRAS Procurement Objective:** The SRAS Procurement Objective has been amended to make it clear that AEMO can consider the full range of costs, including long-term costs, associated with sourcing different kinds of SRAS. This will make it clear that AEMO has the ability to enter into long-term SRAS contracts, or procure specific combinations of services, if this will result in the lowest long-term costs for consumers.
- **System restart path testing:** The final rule establishes a transparent framework for the testing of the physical paths along the network AEMO plans to use to restart the system. This will allow issues which could delay or prevent a successful system restoration to be identified and resolved ahead of time. The restart path testing framework also includes robust consultation and reporting obligations on AEMO and arrangements for test participants to recover the direct costs resulting from participating in a test.
- **Clarification of roles and obligations relating to SRAS:** The final rule also clarifies the roles and obligations of parties involved in system restoration and the communication processes these parties must follow in relation to SRAS.

The Commission considers that these changes are necessary to make sure that the SRAS frameworks in the rules can adapt as needed as the power system continues to change. Taken together, these changes are expected to improve the security and resilience of the power system and reduce costs for consumers over the long term.

### Implementation

The Commission understands that existing SRAS contracts expire in mid-2021. AEMO therefore intends to commence the process of procuring new SRAS contracts in late 2020. The enhancements to the SRAS frameworks are subject to AEMO updating the SRAS Guideline to account for the requirements in the final rule. Accordingly, the final rule requires AEMO to update the SRAS Guideline by 2 November 2020. This timeframe has been informed by advice from AEMO and is intended to allow for these critical enhancements to be in place, and ready to be used in this next procurement process. This is necessary to deliver the most effective mix of system restart and restoration services in coming years.

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