

Reliability Panel
AEMC

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Review of the System Restart Standard

The Australian Energy Council ('AEC') welcomes the opportunity to make a submission to the Reliability Panel's Draft Determination on its *Review of the System Restart Standard*.

The AEC is the peak industry body for electricity and downstream natural gas businesses operating in the competitive wholesale and retail energy markets. AEC members generate and sell energy to over 10 million homes and businesses and are major investors in renewable energy generation. The AEC supports reaching net-zero by 2050 as well as a 55 per cent emissions reduction target by 2035 and is committed to delivering the energy transition for the benefit of consumers.

The AEC appreciates the efforts of the Reliability Panel to date to ensure system restart ancillary services ('SRAS') are fit for purpose. The current System Restart Standard is primarily designed around the capabilities of thermal plants which are progressively exiting the National Electricity Market ('NEM'). The variable renewable generation that is replacing these plants is not like-for-like with respect to its capability to deliver critical power system services and this may create challenges if the current System Restart Standard is not adapted to this future technology mix.

Revisions to the System Restart Standard

The AEC supports the recommendations the Reliability Panel has put forward in this Draft Determination to revise the System Restart Standard, specifically:

- Procure SRAS with the capacity and capabilities to achieve the stated restoration targets for each electrical sub-network after a major supply disruption.
- Procure SRAS that meet or exceed the aggregate required reliability level of 95 percent.
- Clarify the operational characteristics for restoration islands, including features necessary to maintain a satisfactory operating state, to return network/load commensurate with available generation and to synchronise with other parts of the grid.
- Consult jurisdictional system security coordinators regarding the strategic location of SRAS and consideration relating to restoration of sensitive loads.
- AEMO to identify SRAS investment opportunities in the Electricity Statement of Opportunities (ESOO) and similar publications.

The AEC has suggested some areas the Reliability Panel could consider to further bolster any revised restoration standard:

- The restoration standard should include a subsequent target after restoring 50 percent of supply (for example, a target of restoring 85 percent of supply within 10 hours) to provide enhanced certainty of load restoration to consumers.
- Clarify why the aggregate required reliability for areas covering north of Sydney in New South Wales (75 percent target) and north of Bundaberg in Queensland (80 percent target) are substantially lower than the overall SRAS target (95 percent), and whether this is acceptable given the economic impacts it will cause to these geographical areas.

- The Standard should include a requirement for AEMO to consult on the development of the operational characteristics of restoration islands to ensure that these characteristics are within the technical capabilities of available SRAS.
- The Standard should contain clearer reference to “restoration support services” to avoid any ambiguity.

Measures to Enhance System Restart Preparedness

The AEC strongly endorses the Reliability Panel’s recommendations on the future-focused modelling for system restoration as part of the Transitional Plan for System Security. Specifically:

- For horizon one (0 to 2-year outlook), AEMO’s modelling should set out a proactive approach for the integration of inverter-based resources (“IBR”) in system restoration and identify SRAS gaps with a plan on how these gaps will be addressed using existing SRAS capabilities.
- For horizon two (2 to 5-year outlook), AEMO’s modelling should account for a variety of evolving factors, including the exit (and reduced availability) of existing black-start capable resources, the NEM’s evolving generation and network topography (such as renewable energy zones) and the integration of IBR and distributed energy resources in the system restoration process.
- For horizon three (5 years and beyond outlook), AEMO’s modelling should focus on developing scenarios that reflect the potential ‘end state’ of the grid (i.e. a power system with limited coal-fired generation) before exploring future system restart pathways.

Final Comments

While these reforms are valuable, the AEC notes that there are other essential system security services that deserve similar attention to ensure a smooth energy transition. The AEC is currently collaborating with the Clean Energy Council to develop an enduring governance framework for ESS and would welcome it receiving similar application to what is being proposed here.

The AEC looks forward to continuing its engagement with the Reliability Panel and AEMC to ensure the energy system is fit for purpose through the energy transition.

Any questions about this submission should be addressed to Rhys Thomas, by email Rhys.Thomas@energycouncil.com.au or mobile on 0450 150 794.

Yours sincerely,

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