

6 September 2019

Graham Mills
Adviser
Australian Energy Market Commission

Submitted via website: www.aemc.gov.au/contact-us/lodge-submission

Dear Mr Mills

Mechanisms to Enhance Resilience in the Power System – Review of South Australia Black System Event

Stanwell appreciates the opportunity to provide feedback on the Australian Energy Market Commission's (AEMC's) discussion paper (the Paper) on Mechanisms to Enhance Resilience in the Power System – Review of South Australia Black System Event.

Stanwell agrees that the risk profile of the National Electricity Market (NEM) is changing and this review provides a timely assessment of the effectiveness of current frameworks in managing High Impact, Low Probability (HILP) events. The Paper does not however touch upon the issue of, if, and how, consumer willingness to finance mitigating measures against HILP events has changed, nor the changing baseline of normal operations.

Clarity in the National Electricity Rules (NER)

Stanwell agrees with the identified need to clarify the NER with respect to *credible contingency* events. This has been demonstrated by the different interpretations from the Australian Energy Regulator (AER) and the Australian Energy Market Operator (AEMO) on the feathering of wind farms. The NER need to provide a level of flexibility to reflect that overall operational risk is increasing, however, any increase in flexibility needs to be accompanied by appropriate transparency and accountability frameworks.

Clarity of increasing risks versus changing operational baseline

The Paper raises questions regarding whether some of AEMO's system security processes and methodologies should change, for example, to include more probabilistic approaches for forecasting and pre-dispatch. Stanwell agrees that AEMO's processes should appropriately reflect the changing dynamics of the power system and they should be accompanied with adequate transparency.

The Paper also states that there are "new types of operating risks resulting from managing a changing generation mix". Stanwell agrees but also considers that the "baseline" of normal operations is changing and thus the frameworks here need to identify what is appropriate and more efficient to be part of AEMO's Business as Usual (BAU) responsibilities, and what are the marginal conditions that the resilience frameworks are seeking to address. For

example, managing variability arising from many indistinct risks such as those associated with generation variability due to weather will progressively be more and more relevant to normal system operations.

As part of this process, the AEMC needs to consider what system condition management is BAU for AEMO and Network Service Providers (NSP). Stanwell believes that the Power System Frequency Risk Review should be broadened to the proposed Generalised Power System Security Risk Review (GPSSRR), and it should be embedded within AEMO's operational processes. Biennial consideration is insufficient given the pace of change and will only result in inefficient market interventions such as those seen in South Australia. The GPSSRR should be conducted and published at least quarterly to account for seasonal weather forecasts.

Proposed framework and process

Stanwell agrees that resilience should be included in the existing NER frameworks for system security, however, the Paper presents a disjointed process for resilience. In particular:

- The proposed introduction of Standing, Formal and Ad-hoc Protection Operation categories introduces greater complexity and may not provide adequate signals to industry to manage their financial risk.
- Developing a potentially increasingly complex list of events and rules to maintain system resilience is not efficient. Resilience needs to be recognised as an operating characteristic of the power system and embedded more appropriately within the frameworks. In this respect, Stanwell agrees with the more outcomes-based approach rather than codification.
- The assessment framework and transparency measures need to be developed in parallel with the resilience framework in order to make a proper assessment of suitability.
- The assessment process needs to build upon lessons from South Australia and consider solutions that are not just reactive to the current conditions but are considered against future power system needs. For example, the synchronous condensers procured by ElectraNet in South Australia may have been implemented earlier if the system risk assessment was more frequent. This would have reduced the directions being issued to the market to manage system strength and their associated cost.
- The frameworks need to consider an assessment process for evaluating when some Protected Events may become credible, and thus require a process to consider implementing longer-term solutions if more efficient to do so.
- The Ad-hoc Protected Operation category needs more consideration. Given that the power system will continue to change, there is significant risk that AEMO may overuse this mechanism to the detriment of industry and consumers given the increase in the unknowns that the power system is expected to experience.
- Stanwell agrees that Distributed Energy Resources (DER) and Distribution Network Service Providers (DNSP) need to be included in the process given the growth of DER, however, the regulatory frameworks must be able to support them in

responding to, and mitigating against, system security events that have not traditionally been within their remit. In particular, the lack of visibility and controllability of DER poses a significant operational risk.

- The discussion of emergency control schemes such as load shedding needs to be aligned with current and future community expectations on load shedding to ensure adequate system resilience.
- Stanwell agrees that the Reliability Panel is better placed than AEMO to consider the range of solutions and their economic impact.

Overall, it is important that Protected Events do not become reactive measures but that AEMO, the AEMC and NSPs develop frameworks to determine emerging risks more proactively.

Interaction with other processes

The Paper does not adequately consider how the resilience framework may interact or inform other processes underway. For example, the market impacts of increased Protected Events on the proposed transmission hedges of the Coordination of Generation and Transmission Investment. Similarly, while Protected Events or the changing definition of contingency events would allow AEMO to take action against ramping events, Stanwell questions whether this should be considered as part of normal operations and thus addressed through the Energy Security Board's 2025 market reform process.

Stanwell supports the AEMC's consideration of power system resilience but considers any Protected Events framework to be only a transitional measure while we understand how the system is evolving. A fit-for-purpose approach should be more about developing a framework and protocol that can adjust and accommodate the changing risk profile rather than adding more lists of protected, disjointed events.

Stanwell welcomes the opportunity to further discuss this submission. Please contact Alison Demaria on (07) 3228 4588.

Yours sincerely

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