

30 January 2025

Mr Tim Jordan
Chair of the Reliability Panel
Australian Energy Market Commission (AEMC)

Via electronic lodgement

Dear Tim,

Response to Review of System Restart Standard Issues Paper

AusNet welcomes the opportunity to make this submission in response to the Reliability Panel's Review of the System Restart Standard (the **Review**) Issues Paper (the **Issues Paper**).

AusNet is the largest diversified energy network business in Victoria and owns and operates over \$13 billion of regulated and contracted assets. It owns and operates three core regulated networks: electricity distribution, gas distribution and the state-wide electricity transmission network, as well as a significant portfolio of contracted energy infrastructure.

This submission reflects our perspective as the primary system operator of Victoria's declared transmission system.¹ During real-time incidents, AusNet's Transmission Operations Centre (**TOC**) coordinates with the Australian Energy Market Operator's (**AEMO**'s) National Operations team on Victorian emergency management, load shedding and system restart related matters. Importantly, AEMO has officially delegated system restart functions to AusNet in Victoria. This includes responsibility to (1) restore and maintain power system security following a major supply disruption (2) act as the single point of contact for AEMO rather than introducing additional interfaces with distribution system operators (**DSOs**) in an emergency.²

AusNet agrees it is timely and critical to review the System Restart Standard (the **Standard**) and the regulatory arrangements related to system restoration. The energy transformation requires the industry to mitigate credible risks in a range of operational scenarios – 'system normal', 'outages' and 'incidents and emergencies.' System restoration falls within the latter and like the other operational scenarios must consider the environment today but also anticipate what is likely to eventuate in the future. In the near term this includes the retirement of incumbent system restart ancillary services (**SRAS**) providers, high penetration of rooftop solar, proliferation of large-scale battery energy storage systems (**BESS**) and potential availability of new system restart pathways.

Given the sensitivity of this topic, our submission offers the following high-level observations on aspects of the system restart governance, standard and reporting arrangements:

- **We suggest the Panel explore opportunities to improve confidence and rigour expected from SRAS testing and system restart pathways, given increasing operating risks during the energy transformation**

System restart tests used to verify system restart pathways may require additional rigour during the energy transformation where the power system is evolving very rapidly (e.g. changing load conditions). For example, whilst the *System Restart Services, Standards and Testing 2020 Rule* established a framework for physical testing

¹ Under Victoria's declared shared network arrangements, AEMO's National Operations team (on behalf of AEMO Victorian Planning) and AusNet deliver different parts of the Victorian operations function. AusNet is responsible for outage and access management, incident response, network operation and control and the provision of network and asset information. AEMO's National Operations team is responsible for Victorian network limits management and contingency management in addition to its regular national functions.

² AEMO, Instrument of Delegation, August 2013

of system restart paths, there may be more that can be done to improve its practical application and confidence in system restart plans.

One option could be to amend NER Clause 4.3.6(b) to require AEMO and TNSPs to conduct *comprehensive physical system restart test* of black start pathways (i.e. de-energise network segments to test restart outcomes). This would be an improvement on the *functional system restart test* that typically occurs today, which only tests an SRAS providers ability to reenergise the bus at the relevant black start site, rather than test the pathway.

- **We agree that commercial incentives which drive investment in future SRAS capability are not strong enough and further action is required to remove barriers for new entrants**

We share concerns raised by AEMO in its General Power System Risk Review (**GPSRR**) that there are limited investment signals and incentives for the development of new transmission level restart capability in existing and emerging inverter-based resource (**IBR**) generation sources in the NEM.

There are a number of issues at play here. Firstly, prospective SRAS providers are required to spend on modelling, systems and equipment to meet the technical requirements to become SRAS ready with no certainty that they will be selected and recover this investment. This risk may not be palatable to investors. Secondly, industry understanding around the potential for IBR generation and storage to provide SRAS is still developing as are the associated software and systems used to manage system restart with these relatively new technologies.

There are a range of potential solutions to these challenges that may be worth further consideration. For example, funding generators that meet a set of defined criteria to become SRAS ready or removing any barriers to TNSPs making additional terminal stations SRAS ready (e.g. interlocking capability, synchronisation points).

- **Consideration of the upcoming risks and challenges to the provision of system restart could help industry plan**

AusNet is conscious that transmission systems across the NEM are facing a range of pressures that increase the underlying risk of incidents and emergency operational conditions, and importance of SRAS. In this context, we support the Reliability Panel's investigation into whether reporting arrangements can be improved to better understand gaps in restart planning and opportunities for investment in SRAS provision.

To balance transparency and confidentiality, we suggest that the Reliability Panel consider two separate forward-looking reporting requirements. For example, the first report could be a 'planning report' that requires planning input with TNSPs to test the identified need and feasibility of SRAS options before procurement decisions are made. The second report could be an updated non-market ancillary services (**NMAS**) report that summarises outcomes from the planning report for a wider audience, including SRAS investors and electricity consumers.

We would welcome the opportunity to engage in more detailed conversations on these issues with the Reliability Panel and relevant market bodies as the Review progresses.

If you have any questions regarding this submission, please contact Jason Jina, Policy and Reform Manager by email at jason.jina@ausnetservices.com.au.

Sincerely,



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AusNet