17 October 2019

Mr John Pierce AO
Chair
Australian Energy Market Commission
PO Box A2449
Sydney South NSW 1235

Electronic Submission – ERC0278

Consultation Paper – System Restart Services, Standards and Testing

Dear Mr Pierce

Energy Networks Australia welcomes the opportunity to provide a response to the AEMC's Consultation Paper on System Restart Services, Standards and Testing.

Energy Networks Australia is the national industry body representing Australia's electricity transmission and distribution and gas distribution networks. Our members provide more than 16 million electricity and gas connections to almost every home and business across Australia.

Energy Networks Australia is supportive of improvements to the framework to enable cost effective measures for power system resilience, including improving how quickly the system can be restored following a major disturbance.

In this submission Energy Networks Australia makes the following key points;

- The rules drafted should clearly state that Australian Energy Market Operator (AEMO) as procurer of the system restart ancillary services (SRAS) contracts is responsible for testing and that the role of any Network Service Provider (NSP), is to help facilitate the tests and is as a participate in any test;
- The AEMO rule change proposal addresses the risks of not adequately testing the ability of a provider of SRAS to ensure the service works when required. However, the rule change proposal does not, but must, consider how the added risks to equipment and the power system for the parties impacted by the test, including load consumers is treated. Approaches that allow a high confidence that the system can reliably be restarted from black without the cost and risk associated with such large scale regular physical testing should also be considered;
- Transmission Networks Service Providers (TNSPs) and Registered Participants undertaking the tests need to be immune from any liability for actions taken in the conduct of the tests, similar to section 116 of the National Electricity Law (NEL);

- TNSPs who are required to undertake tests should have this outage excluded from the Service Target Performance Incentive Scheme (STPIS) calculation, in the same manner as an upstream event;
- System restart protocols must focus on clear, timely communication in operational timeframes that focus on system recovery and provide clear information channels to media and governments, they also need to dovetail into the range of other outage management protocols; and
- Regulations should not preclude the use of TNSP facilities from being utilised in SRAS service delivery and should acknowledge this potential.

The proposed changes to System Restart Services, Standards and Testing

Two rule changes proposals, one by AEMO and another by the Australian Energy Regulator (AER), have been put forward to the AEMC reflecting the learnings from the South Australia system black reviews. In summary the proposed changes cover the following scope:

AEMO

- AEMO should be able to buy new services to support restoration of the power system, not just restart services;
- New generators should be capable of providing one or more of these new services as part of the minimum access standard for connection to the network and must have the capability to provide all the services for automatic access; and
- Introducing new arrangements for testing of SRAS services, including obliging TNSPs to develop a test program on request by AEMO.

AER

- Improved clarity of responsibility of parties involved in testing SRAS and restoring the power system.

System Restart tests 5.7.7A

In principle Energy Networks Australia supports testing to mitigate risks for system restart in the event it is required. It is appropriate that where AEMO procures services that it ensures they are able to be delivered when required. Hence AEMO as the operator of the power system and the custodian of power system security is responsible for the testing. The rules drafted should clearly state that AEMO as procurer of the services contracts is responsible for testing and that any NSP role is to help facilitate the tests and participate in testing as a participant.

The need for physical testing needs to be balanced against the risk and cost impacts for generators, transmission and load consumers of performing the physical test. While it appears prudent to allow AEMO to require test programs and the associated testing for the SRAS services it contracts, the following matters also need to be considered:

- Testing full restart capability may not be practical from an operational perspective. A physical test on the network whilst good practice, has costs and risks associated with it, elements of the generation and the transmission system may experience equipment damage from inadvertent extremes of voltage and/or frequency, resulting in potentially significant costs and lengthy delays to recovery of systems from the test;
- In directing TNSPs and Registered Participants to undertake tests the potential impact of these tests on distribution and transmission connected load consumers must be considered. This sort of testing necessarily places the power system in a less reliable and less resilient state than it would otherwise be in. The performance of a physical test on the network has the potential to impact transmission or distribution load consumers not just the specific generators testing their ability to provide a contracted system restart service and earn additional revenue. These load consumers may experience outages and associated lost production; and
- It is noted that the party that controls the extent of testing, AEMO, bears no risk of financial losses should systems not be able to restart for the load consumers impacted. Energy Networks Australia is firmly of the view that TNSPs and Registered Participants undertaking the tests need to be immune from any liability for actions taken in the conduct of the tests, similar to section 116 of the NEL.

The issue for risk to equipment and consumers is about both scale of the testing being suggested by AEMO as well as the regularity of the testing. A high confidence level that the system can reliably be restarted from system black may be able to be gained to an extent by adopting paper-based walk throughs, testing of programs in test or development environments or consideration of a more joint approach to physical testing after a thorough risk assessment. Approaches that allow a high confidence that the system can reliably be restarted from black without the cost and risk associated with such large scale regular physical testing should also be considered.

TNSPs who are required to undertake tests should have this outage excluded from the STPIS calculation, in the same manner as an upstream event.

System Restart Communication Protocols

Energy Networks Australia supports effective written system restart protocols which can also be tested as part of the increased obligations on testing. The communication protocols must be clear and effective for both a positive test (with expected restoration) and also for the purposes of a restoration that does not go as planned. Energy Networks Australia notes that there are also load shedding community engagement protocols and widespread outage protocols for distribution networks with a single spokesperson (Victoria) etc. The way these arrangements dovetail into each other and external media and communication with governments should be clear. System restart protocols must focus on clear, timely communication in operational timeframes that focus on system recovery and provide clear information channels to media and governments.

System Restart Services

Where NSPs have equipment that is connected to the network that is providing a network use of system service, NSPs should not be precluded from providing certain SRAS services. If the NSPs equipment is able to deliver other services and this is economically efficient then these services should be able to be utilised. Regulations should not restrict this option of improving the benefits for consumers from using network equipment to improve SRAS service delivery.

Energy Networks Australia looks forward to engaging with the AEMC and AEMO as the Rules and Guideline development progresses.

Should you have any queries on this response please feel free to contact Verity Watson, vwatson@energynetworks.com.au.

Yours sincerely,

Andrew Dillon

Chief Executive Officer