17 October 2019

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

Lodged online: www.aemc.gov.au

Dear Mr Pierce,

SYSTEM RESTART SERVICES, STANDARDS AND TESTING RULE CHANGE PROPOSAL (ERC0278) – CONSULTATION PAPER

The Clean Energy Council (CEC) is the peak body for the clean energy industry in Australia. We represent and work with hundreds of leading businesses operating in renewable energy and energy storage along with more than 6,000 solar and battery installers. We are committed to accelerating the transformation of Australia's energy system to one that is smarter and cleaner.

The CEC welcomes the opportunity to comment on the Australian Energy Market Commission's (AEMC's) consultation paper in relation to the system restart services, standards and testing rule change proposal. The consultation paper combines rule change proposals from the Australian Energy Market Operator (AEMO) and Australian Energy Regulator. These proposals draw on the learnings from the black system event that occurred in South Australia on 28 September 2016. The CEC supports drawing on learnings from this event to improve the resilience of the power system but cautions against taking an overly conservative approach that will only lead to increased industry costs without a commensurate increased benefit. We comment on issues of particular relevance to the clean energy sector in this submission.

Expansion of the definition of SRAS

AEMO proposes to expand the System Restart Ancillary Services (SRAS) definition to two sub-categories of service:

- Black start capability, as per the current definition
- Restoration support services, being "the capabilities described in the SRAS Guideline to supply one or more services to sustain the stable energisation of generation and transmission".[1]

The CEC supports the expanded definition. This recognises that the generation mix is changing and that alternative sources of system restart capability and system restoration support already exist and are emerging. Asynchronous generation has the potential to provide system restart services,

[1] AEMC, System Restart Services, Standards and Testing Consultation Paper, 19 September 2019, p. 32.

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particularly as grid-forming inverters are developed and enter the Australian market. More importantly now, asynchronous generation already has the capability to support the progressive restoration of the power system through other services such as voltage support and frequency control that can assist along the restoration pathway.

We consider that the SRAS definition must be technology neutral and flexible for different capabilities that may emerge into the future. This should be reflected in the National Electricity Rules and AEMO's SRAS Guideline.

Generator access standards

AEMO proposes the addition of a new access standard addressing the capability of generating units to provide active and reactive power in system restart conditions. The minimum access standard would require generating units to be capable of providing at least one of the restoration support services specified in the SRAS Guideline and the automatic access standard would apply where the generating unit can provide all of the specified restoration support services.

The CEC does not support the addition of a new access standard as this is an overly conservative and onerous blanket approach of mandating a capability on all new generators. We believe SRAS should remain a service and sufficient incentive to provide the service should come from the changed definition and the payments for such services through AEMO's procurement process. There is no compelling case for mandating restoration support service capability on all new generators on top of the expanded SRAS definition.

AEMO suggests that the proposed new access standard is not likely to impose significant costs on existing or new generators as most current inverter-connected generation technologies are capable of providing reactive power response at low or no active power output and these capabilities can be expanded with modifications to control systems. The CEC does not agree with this assumption and believes that the new access standard will add cost and delays to an already costly and lengthy connection process as further analysis will be required to demonstrate a plant can work stably under very onerous low system strength conditions. We also note that the very large majority of inverter-connected generation is not capable of providing reactive power at zero output. This is an optional extra that comes at additional cost as it requires more hardware. The majority of inverter-connected generation is capable of providing reactive power at low output from 1 to 5 per cent depending on the technology type.

Given the costs associated with the required studies to prove capability, this further supports the case for system restart to be a service rather than an access standard as the costs can then be captured in a SRAS agreement.

AEMO proposes that where a generating system is modified, it would need to meet the new access standard. The requirement to reopen a plant's agreed generator performance standards when modifications are made is already proving to be a challenge. Extending this existing requirement to this new access standard will only exacerbate issues, particular where the adoption of a new access standard may be incompatible with existing generators undergoing upgrades. The CEC encourages the AEMC to consider this matter carefully as it would be an inefficient outcome if generators chose not to or were unable to upgrade their plants given more onerous requirements would be put on them.

Testing of SRAS

AEMO's rule change proposal suggests there is a need to clarify the involvement of Networks Service Providers (NSPs) in the ongoing testing of SRAS and to facilitate extended system restart path testing.

The CEC considers the proposal around testing requires deep consideration by the AEMC. This must recognise that there are different parties affected by testing including AEMO, NSPs, SRAS providers

and other market participants that are third parties to the test, such as other generators and loads. The AEMC should consider the roles and responsibilities of the different parties, the extent to which risks are placed on these parties and the protections afforded to each of them, such as in the situation where a test does not go as planned. The AEMC should consider how a joint approach to testing that brings together all these parties can be facilitated.

We also believe the timing of testing requires consideration and clarity. For example, there is no indication of how often SRAS systems should be tested on an annual basis. The CEC suggests there should be a more considered approach to the timing of testing by using the Medium-Term Projected Assessment of System Adequacy (MTPASA) to bundle testing or through opportunistic testing during transmission maintenance.

If you would like to discuss any of the issues raised in this submission, please contact me on the details below.

Yours sincerely,

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