17 October 2019

John Pierce
Chairman
Australian Energy Market Commission (AEMC)
PO Box A2449
SYDNEY SOUTH NSW 1235

By online submission.

Dear Mr Pierce

System Restart Services, Standards and Testing Rule 2019 Consultation Paper (ERC0278)

Hydro Tasmania appreciates the opportunity to make a submission in response to the AEMC's Consultation Paper on System Restart Ancillary Services.

Hydro Tasmania has fifty registered hydro generating units with a capacity of over 2250 MW and is also the owner of AETV Pty Ltd. With a commitment to a secure and reliable energy supply in Tasmania, Hydro Tasmania recognises the importance of having robust SRAS arrangements in place for the unlikely event of a major system disruption.

The proposed Rule changes and issues raised in the consultation paper represent a major overhaul of the current System Restart arrangements. Specific details on how each of the proposed changes will be implemented are however yet to be fully developed. Given the complexity of the proposed reform and relative lack of detail on key design aspects, Hydro Tasmania has provided high-level responses to selected consultation questions – see Appendix A.

Hydro Tasmania looks forward to working with the AEMC as the consultation process continues to consider the impact of the proposed reforms on existing and new generators. If you have any queries on this submission or require further information please contact Ricky Beswick 0429 008 426 or via email Ricky.Beswick@hydro.com.au .

Yours sincerely

John Cooper
Regulatory Manager

Appendix A

Selected responses to AEMC's (System Restart Services, Standards and Testing) Rule 2019 Consultation Paper (ERC0278)

QUESTION 4: SRAS TESTING
1. Do stakeholders agree with AEMO's analysis of the issues in relation to the testing of SRAS in the context of a changing power system?
2. Would the proposed change address the issue raised by AEMO? If not, what alternative solutions are there?
3. Can stakeholders provide an indication of the costs associated with the proposed changes? How will these costs affect generators, NSPs and consumers, respectively?
4. Do stakeholders have views on whether the cost recovery arrangements for SRAS testing proposed by AEMO are reasonable and efficient?

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1. Hydro Tasmania acknowledges that the robustness of a restart process is enhanced by testing the relevant paths and processes, noting that it is important to balance this consideration against any risks to the system due to this testing and the impact on any participants. As identified by AEMO a changing system requires ongoing attention. In this context, one particular aspect to consider may **be to ensure clarity between the boundaries of a Restart test associated with a contracted SRAS and broader aspects** of **a Restart path test.**

3. **The cost implications of any testing would require further information / detail on the proposed approach to be assessed.** For generators the key factors to consider in considering the implications of testing are the plant that would be affected, the timing, duration and frequency of the testing. The cost impacts on a generator would be a combination of the implementation costs of any tests and the lost market opportunity costs of being disconnected from the market for testing period.

QUESTION 5: GENERATOR ACCESS STANDARDS
1. Do stakeholders agree with AEMO's analysis of the issues in relation to the proposed new access standard addressing the capability to provide active and reactive power in system restart conditions?
2. Would the proposed change address the issue raised by AEMO? If not, what alternative solutions are there?
3. Does the proposed change represent an unnecessary barrier to entry, having regard to the costs imposed by the change and the technical capabilities of different technologies?
4. Can stakeholders provide an indication of the costs associated with the proposed change?

With respect to questions (3) & (4) there is lack of detail on the proposed access standards, both in terms of what is required of a connecting generator and a clear definition of what state the system is in for which S5.2.5.15 clauses would be applicable. For example:

- Although the proposed changes refer generally to "System Restart Conditions", the registered performance standards require reference to a specific range of quantified conditions. For *System Restart Conditions,* the key questions to address would be: what is the state of the system or what system electrical parameters are generators expected to

perform within and how does this differ from the operating state/s that apply for other areas of the access standards? Are these different modes of operating or different operating ranges and if so how are they tested and assessed?

As there is not a clear description of these technical details it is difficult to make a realistic assessment of the impacts of the proposed change. **We encourage the AEMC to flesh out the details further in the next stage of the consultation process and would welcome the opportunity to consider the implications of these issues with the AEMC further.**

Application to existing generators

Although AEMO's argument for the rule change specifically refers to new Asynchronous generation functionality in some detail, it also invokes the NER 5.3.9 process whereby existing generators modifying their connections will also be subject to the proposed new access standards. **Hydro Tasmania is concerned that new access standards focussing on new asynchronous generation may be incompatible with existing generators undergoing upgrades or modification**. This is of particular relevance to Hydro Tasmania with a large number of existing generators and an ongoing upgrade program.

A similar concern was also noted and addressed during the Generator Technical Performance Standards Rule change (ERC0222) where the following National Electricity Rules clause was included:

> *5.3.4A (1A) Negotiated access standards*
> *with respect to a submission by a Generator under clause 5.3.9(b)(3), be no less onerous than the performance standard that corresponds to the technical requirement that is affected by the alteration to the generating system;*

It should be noted that while clause 5.3.4(a)(1A) applies to existing access standards; this clause does not appear to contemplate new access standards. Therefore if a new access standard (S5.2.5.15) is developed that is not compatible with existing synchronous generating plant then this could effectively block upgrades being performed as modified existing plant may not be able to meet these unanticipated new standards. Such an outcome would be inefficient and not in the long term interest of consumers.

In light of these concerns, **Hydro Tasmania encourages the AEMC to consider these issues in more detail** including the way similar concerns where addressed through the Generator Technical Performance Standards Rule change. Hydro Tasmania proposes that any consideration of changes to access standards should occur through the rigour of the normal rules change process rather than AEMO's proposal to use a consultation during the SRAS Guideline process (ref 11.xxx.2 Amended Procedures) as a proxy for a rules change process for these technical changes.

In summary, the proposed change to the technical access standards and the defined state of operation (i.e. System Restart Conditions) need to be further detailed before a realistic assessment can be made and particularly if their application is appropriate to a range of technologies, both new and existing.

QUESTION 6: CLARIFICATION OF ROLES AND OBLIGATIONS OF PARTICIPANTS IN RELATION TO SRAS
1. Do stakeholders agree with the AER's analysis of the issues in relation to the need to clarify the specific roles and responsibilities of NSPs, AEMO and other market participants in relation to SRAS?
2. Would the proposed change address the issue raised by the AER? If not, what alternative solutions are there?

3. Do stakeholders have views on the role and function of LBSPs and whether this is adequately dealt with under the NER?

1. **Hydro Tasmania agrees that clarity of the specific roles and responsibilities of all the various parties, not just AEMO and NSPs, in both preparation for and involvement in an SRAS event is important.** In particular, in the event that SRAS is required, it is highly likely that for many participants there will be a corresponding significant disruption of normal business operations, under these conditions in particular, clear roles and responsibilities are vital.

As identified by the AER, it is logical that the Network Service Providers (NSPs) be actively involved in all facets of SRAS. The active and informed involvement of NSPs is critical in ensuring that any System Restart arrangements are effective. As the party that primarily deals with local switching, connection configurations and protection co-ordination, it is appropriate, that as identified in the SRAS testing scenarios requirements, the NSP's have a key role in the planning, preparation and implementation of System Restart activities.

3. As a generator Hydro Tasmania notes that the AEMO format for the Local Black Start Procedures (LBSP) appears to be a primarily a checklist of items for AEMO in determining the System Restart Plan. As currently configured the LBSP does not include the procedure for the generator to reconnect to the system following a black start event.

As most of the formal coordination in SRAS planning is between AEMO and the NSPs, it is important that the perspective from the connecting generators (and by implication load customers) is also given attention in these situations to ensure a robust end to end approach. As noted by the AER it would appear to be a logical step to incorporate an operational procedure for the generator, in the event of a major supply disruption, into the LBSP's. **Hydro Tasmania encourages the AEMC's consideration of incorporating an operational procedure for generators into the LBSP.**