

Stakeholder Comment Matrix – April 23, 2020

Overview of Energy Storage Resources – Operating Reserves Qualification and Technical Requirements and Alberta Reliability Standards Applicability



Period of Comment: April 23, 2020 through May 7, 2020

Comments From: Capital Power Corporation

Date: 2020/05/07

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Instructions:

1. Please fill out the section above as indicated.
2. Please respond to the questions below and provide your specific comments.
3. Email your completed comment matrix to energystorage@aeso.ca by May 7, 2020.

The AESO is seeking comments from Stakeholders with regard to the following matters:

Questions

Stakeholder Comments

<p>1.</p>	<p>Are there areas where further clarity on expected participation in the Operating Reserves (OR) market or applicability of the Alberta Reliability Standards (ARS) would be helpful?</p>	<p>Capital Power appreciates the opportunity to provide comments on the AESO's overview relating to energy storage participation in operating reserve markets.</p> <p>Operating Reserve Qualification & Performance</p> <p>As noted by the AESO, an AC coupled energy storage resource would have suitable technical parameters that would allow it to provide all forms of operating reserve products – regulating, spinning and supplemental. The unique nature of storage operating as an energy-limited asset, however, presents new challenges that arise from the management of the asset's state of charge. <i>Operating Reserve Products and Minimum Qualification</i></p> <p>The products procured in the current markets for OR include 1x8 and 1x16 hour blocks. Based on the qualification requirements proposed by the AESO for regulating and spinning reserves, it is uncertain whether assets meeting only the minimum requirements would be able to adequately comply with the dispatches and directives for these products. Based on a review of proposed projects and likely configurations that may arise in the short-term, there may be concerns around the deliverability of these products from early stage projects.</p>
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		<p>Similarly, where assets are operating with a reduced state of charge, it is conceivable that an asset that meets the technical requirements specified in ISO rules may satisfy the requirement to have sufficient capacity available, however, when a directive is received, they are energy-limited, and therefore, are unable to deliver the product. This should be addressed through sufficiently stringent qualification requirements and clear requirements for the management of state of charge by asset owners.</p> <p><i>Acceptable Operational Reasons</i></p> <p>In managing the state of charge of the asset, the AESO submits that the operator is able to restate the available capacity of an asset in the energy market based on the provisions for acceptable operational reasons. The AESO notes that restatements can only occur in limited circumstances, specifically at relative 100% or 0% state of charge. How this state of charge is managed, particularly in the case of a hybrid asset, may limit the asset's ability to sell regulating or spinning reserves. Similarly, it may limit the asset's ability to comply with a dispatch or directive for products already sold. This would be particularly true of an asset that is at 100% charge, and therefore, has no ability to absorb energy from the AIES.</p> <p>Consideration should be given to allowing for additional restatements at varying levels of state of charge (eg. 0%, 25%, 50%, 75%, 100%). Consistent with previous comments, this information should be provided to all market participants in an aggregate form to support efficiency and price formation.</p> <p><i>Failure to Meet OR Dispatch or Directives</i></p> <p>Capital Power submits that all assets participating in OR markets, regardless of technology, should be held to the same standard. Therefore, it is appropriate that a storage asset that fails to meet a dispatch or directive will have revenues clawed back, liquidated damages assessed, and pursuit of the event as a potential ISO rule violation. Allowances for substitutions outside of T-1 are appropriate, and maintains a level playing field between all participants clearing in the OR markets.</p>
2.	<p>Are there areas of market participation or compliance with standards that in your view need special consideration for energy storage that are not identified in the qualification and ARS applicability document?</p>	<p>Ramping and Frequency Management</p> <p>Consistent with previous comments, Capital Power notes the following issues relating to ramping and frequency management. Given the nature of the assets, the AESO should consider what, if any, changes are required to manage the ramp of these assets, including mitigation for any impacts to system frequency changes. This consideration should include any changes necessary to manage the AESO's process</p>

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		<p>for pre-dispatching and positioning assets ahead of the hour for OR availability.</p> <p>Alberta Reliability Standards</p> <p>Capital Power supports applicability of reliability standards based on the point of interconnection for the asset. This approach ensures that a proliferation of smaller storages devices are subject to reliability standards where the gross capacity of multiple assets is greater than 67.5 MW. Similarly, where an increasing portion of reliability services are procured from small storage facilities, it may be appropriate through long-term implementation to consider whether exempting these facilities from the provision of the Alberta Reliability Standards is appropriate.</p>
3.	Additional comments	Capital Power has no additional comments at this time.

Thank you for your input. Please email your comments to: energystorage@aeso.ca.

