

Stakeholder Comment Matrix – April 9, 2020

Overview of Short-term Market Implementation Requirements for Energy Storage Participation



Period of Comment: April 9, 2020 through April 27, 2020 Comments From: Canadian Solar Industries Association (CanSIA) Date: 2020/04/27	Contact: [REDACTED] Phone: [REDACTED] Email: [REDACTED]
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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 April 27, 2020.

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

	Questions	Stakeholder Comments
1.	Are there areas where further clarity on expected participation would be helpful?	<p>The AESO is proposing to treat all Energy Storage Systems (ESS) similarly, when technology varies considerably with regard to cycle life, ramp rate, duration, and depth of discharge. The short term requirements should contemplate multiple ESS technology types. The use of the ESS will vary by application.</p> <p>Section 3.3 (2) indicates that the ISO rules apply to source assets with a maximum capability greater than or equal to 5 MW. ESS is measured in MWh/MW and so it is difficult to discern if the AESO is referencing the MWh or the MW discharge capability. Please add further clarity.</p> <p>Figure 3 – represents the energy measurements for hybrid facility. Will transformer losses be accounted for in the monthly energy settlement for separate assets?</p> <p>Section 4.1.1 Bids and offers, indicates that the “AESO will be reviewing how it may be possible to enable an ES facility to offer its full operational range”. Some ESS technologies have a minimum depth of discharge and maximum charge for normal operating conditions (typically 20% and 80%) otherwise the cycle life of the technology is impaired. The short term rules need to allow for limitations on the depth of discharge and charge.</p>

		<p>Section 4.1.2 the AESO indicates that the “State of charge will only be considered a physical limitation at relative zero and relative 100 percent charge.” However, this does not relate to the technological limitations of some types of ESS. The technical depth of charge limitations could be considered in calibrating the “zero and relative 100 percent charge”. While the AESO requires visibility of the energy storage assets’ state of charge, it will not be able to confirm the legitimacy of the energy market restatement and the associated AOR without taking the technology type into consideration.</p> <p>Section 4.1.4 Outage Reporting. The reference to MW in these cases is confusing as ESS is measured in MWh/MW. Please clarify how these MW references relate to MWh/MW for ESS.</p> <p>Section 4.2 uses the “full range of operation”. Again, how does the AESO account for multiple types of ESS technologies and the range of charge for each technology.</p> <p>Section 7.3 – For hybrid applications the Energy Storage dispatch is typically limited by the size of the transformer, and therefore the GUOC payment should be limited by the transformer size and not the combination of the renewable energy nameplate capacity and the MWh/MW of the ESS. This should also be the consideration for Losses (STS).</p>
2.	<p>Are there areas of market participation that in your view need special consideration for energy storage that are not identified in the overview document?</p>	<p>As discussed above, ESS are not all equal and need to be allowed specifics for each technology particularly regarding depth of discharge</p>
3.	<p>Additional comments</p>	<p>It would be helpful to have a conversation by Zoom with ES participants to be able to have a question and answer session to assist in the consultation process.</p>

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