

Stakeholder Comment Matrix – Oct. 1, 2020

Request for Feedback on Long-term Energy Storage Market Participation Options Paper



<p>Period of Comment: Oct. 1, 2020 through Oct. 30, 2020</p> <p>Comments From: Canadian Renewable Energy Association</p> <p>Date: October 30, 2020</p>	<p>Contact:</p> <p>Phone:</p> <p>Email:</p>
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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. **Please submit one completed matrix per organization.**
4. Email your completed comment matrix to energystorage@aeso.ca by **Oct. 30, 2020**.

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

	Questions	Stakeholder Comments
1.	Are there additional issues to energy storage market participation within the current ISO rules that AESO did not identify?	
2.	Are there additional options to energy storage market participation within the current market structure that AESO did not identify?	<p>Energy storage will play an integral role in maintaining and enhancing reliability and affordability for ratepayers as Alberta transitions to a more flexible and less carbon-intensive electricity system. However, the growth of energy storage going forward will depend on the ability of operators to manage the full range of charge for their facility while only bidding into the market when they chose to do so on an economic basis, rather as directed by the system operator.</p> <p>As proposed in the long-term options document, the “half range” and “full range” options do not represent the full range of potential participation frameworks for storage facilities operating in the Alberta market. Rather, they are the two extreme options, which bookend a number of possible implementations.</p> <p>In the case of the half range option, the facility may only offer half of its full charging capacity to the market, but is free to charge based on when it is financially optimal to do so. However, at the other bookend, the full range option, the battery may operate within the full range of its charge at all times, but has a “must bid” requirement for</p>

		<p>charge, meaning that it must always state the pull price at which the facility will operate as a sink asset. This “must bid” requirement gives the operator little control over how it may charge.</p> <p>Going forward, the electricity system would be best served by enabling full-range participation of energy storage implemented on a “may bid” basis, rather than the proposed “must bid” basis.</p> <p>Should the AESO desire to prescribe demand response behaviour in order to provide reliability services, this should be done through the procurement of operating reserves, ancillary services or through other contracts for these products. Storage facilities should be provided with the greatest amount of flexibility to pursue revenue in the energy-only market according to FEOC principals.</p>
3.	Do you agree with the evaluation of options?	<p>Overall, the evaluation of options was helpful in regard to understanding the AESO’s point of view on the challenges and opportunities relating to the deployment of storage in Alberta’s energy markets. As provided, the in-text evaluation of each position was helpful for internal conversations. However, the options discussed did not provide a sufficient range of alternative approaches for consideration prior to making any final decision. It is recommended that the results of this stakeholder matrix lead to further discussion, prior to drafting the market rules, rather than leading directly to the draft rules.</p>
4.	Is full range market participation an important priority for energy storage right now; or is half-range providing required market access? Should full range market participation be deferred for investigation and implementation at a future date?	<p>The AESO should implement the full-range market participation of energy storage, while maintaining the option to participate on a half range basis.</p> <p>Again, we emphasize that any full-range participation must be implemented on a “may bid” basis, rather than the proposed “must bid” basis. This permits further flexibility and price sensitivity.</p> <p>Should the AESO require certain behaviors in order to maintain grid stability, they should be procured through the operating reserves market, the ancillary services market, or other longer-term service procurements.</p>
5.	<p>Should Variable Energy Resources and Storage hybrids be permitted to participate?</p> <p>a. If no please explain why not</p>	<p><i>Yes, Variable Energy Resources and Storage hybrids should be permitted to participate.</i></p> <p>We strongly disagree with the AESO suggestion that they may consider not permitting Variable Energy Resources and Storage hybrids from being able to participate. We note that the AESO had only recently provided clarity on “hybrid” configurations and how these assets can participate in the market. We see no justification for the AESO</p>

	<p>b. If yes please provide a rationale as to why and how the dispatch variability issue should be addressed?</p>	<p>changing its course or view on the acceptability of hybrid assets when it directed specific metering infrastructure to enable these assets to participate in the market.</p> <p>The co-location of an energy storage resource alongside a VER does not increase the variability of the latter. While the energy storage asset can consume generation produced by the variable resource, which varies the amount of generation that is sent to the grid, the AESO does have some visibility what the energy storage asset is doing behind-the-fence.</p> <p>In fact, the market participant must schedule charging that would be greater than the allowable dispatch variance of the variable resource by pricing those megawatts out of merit. In this respect, the system controller is made aware from offers from the variable resource when it is going to use the generation to charge the energy storage asset, as those megawatts would be priced out of merit. Any charging that is within the allowable dispatch variance is too low to provide meaningful information to the system controller (and is visible to them in any event by the SCADA information on the energy storage asset).</p>
<p>6.</p>	<p>How should storage and potentially other demand side resources be required to participate in the energy market?</p> <p>a. Must submit full range</p> <p>b. May submit full range</p> <p>c. Only submit discharge capability</p> <p>Please provide a rationale for your choice.</p>	<p>Storage resources should be provided the option to submit their full range in the energy market. To obtain sufficient revenues, storage facilities may engage in a variety of behaviours, including the time shifting of generation or market arbitrage.</p> <p>This variety of behaviours require that facility operators have sufficient flexibility to determine when they should be consuming from the grid and to sort out the pricing signals that provided them the incentives to do. While some operators may decide to offer their full range when appropriate, there may also be times when they determine that it is optimal to consume from the grid without scheduling ahead of time.</p> <p><i>Section 203.1: Offers and Bids for Energy</i> does not impose a requirement on load resources today to bid into the market. Rather, the rule permits a load resources the option to bid to purchase electricity at a bid price determined by the market participant. While it is clear that a storage resource is not a load, per se, because the facility is not an end user of the electricity, any energy market participant that consumes from the grid should be granted the same optionality. Thus, if load resources <i>may</i> bid to purchase electricity without a requirement to do so, storage should receive the same treatment.</p>
<p>7.</p>	<p>In regard to the full range market participation options, how do you feel the chosen option should land when trading off</p>	<p>Full range market participation should be enabled but it should be voluntary not mandatory.</p>

	technology agnostic treatment and complexity against participation flexibility?	
8.	Do you have any comments on defining the state of charge? Is there anything the AESO has not considered? Please explain.	State of Charge should be based on MWs available for the delivery/settlement interval not MWhs of stored capacity. Different storage technologies may have different operational requirements relating to the state of charge and the MWs available approach better reflects a range of technological capabilities.
9.	Do you have any comments on the commissioning requirements for storage? Is there anything the AESO has not considered? Please explain.	
10.	Do you have any concerns or suggestions on the energy storage market participation engagement process and timeline?	No concerns at this time.
11.	Do you have any other suggestions or comments you would like to share with the AESO related to the Long-term Energy Storage Market Participation Options Paper or the engagement activities?	<p>The treatment of energy storage under the Bulk and Regional Tariff is of utmost importance to the deployment of these technologies in Alberta. However, it is our concern that there is not sufficient alignment between these two processes and steps should be taken to ensure that learnings from one are considered in the other.</p> <p>It is our observation that the design of the two separate processes may preclude any information gathered from the Energy Storage Roadmap being integrated into the Bulk and Regional Tariff Design Stakeholder Engagement process. This misalignment may lead to redundancy and red tape in the overall process, as it means that the same issues may be brought up in both sessions. This is not an efficient use of time for the stakeholders attending both sessions.</p> <p>We request that more time be provided to future discussions of energy storage during this consultation process. There is considerable further discussion required specifically regarding energy storage, and we recommend that the energy storage engagement be given more priority in future discussions of the Bulk and Regional Tariff.</p> <p>Given the accelerating pace with which storage solutions are being put forward in the Alberta market, we recognize the importance of resolving important questions in terms of the tariff structure with the 2021 filing. However, this current stakeholder</p>

	<p>engagement does not allow for sufficient focus on these issues, nor does it allow for meaningful integration of the ESILF outcomes.</p> <p>We propose the following adjustments be introduced to this process to provide sufficient time for discussion:</p> <ul style="list-style-type: none">- The storage tariff design proposal be brought forward to the AUC for approval along with the Phases being filed on June 30, 2021;- The energy storage tariff treatment consultation timeline be modified to allow for discussion outcomes from the Energy Storage Roadmap and ESILF engagement to be brought forward into the tariff design discussion; and <p>At least two additional dedicated half-day sessions be set aside for energy storage discussion.</p>
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Thank you for your input. Please email your comments to: energystorage@aeso.ca.