

## Stakeholder Comment Matrix – April 9, 2020

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



<b>Period of Comment:</b> April 9, 2020 through April 27, 2020 <b>Comments From:</b> TransAlta Corporation <b>Date:</b> 2020/04/27	<b>Contact:</b> [REDACTED] <b>Phone:</b> [REDACTED] <b>Email:</b> [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](mailto: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>TransAlta appreciates the AESO’s clarification of the short term market implementation requirements for energy storage resources. The document comprehensively outlines the requirements for stand-alone and hybrid facilities, metering configurations, financial settlement, tariff treatments, and energy and operating reserve market participation. We appreciate that introduction of Battery Energy Storage Systems (BESS) to Alberta’s system this year has greatly increased the pace that the AESO must tackle these issues and create a framework in which BESS can participate in the market.</p> <p>We understand that this is only the first stage of market implementation and look forward to further pursuit of new rules that contemplate the participation of a controllable load and generation resource as well as new fast response resource ancillary services, tariff treatment for standalone batteries and the procurement of non-wires alternatives for regulated service.</p> <p><b>Confirm the requirements for charging a BESS that is operated as part of a hybrid facility</b></p> <p>The AESO identifies the configuration of a energy storage facility that is connected to a wind or solar facility on the same site and does not withdraw from the Alberta Interconnected Electric System (AIES). Under such an configuration, the BESS</p>

		<p>charges off the wind or solar facility and any surplus energy out (net generation) from the wind or solar facility is transmitted to the AIES. We wish to confirm that no Available Capability (AC) restatement or offer/bid submission is required on the wind or solar facility when the BESS is charging. In other words, the BESS charge is treated as energy output variability just as other factors (wind and solar variability) that impact generation output.</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><b><i>The requirements for restatements of energy storage assets should be further clarified to minimize the requirement for frequent AC restatements</i></b></p> <p>TransAlta appreciates the guidance provide in the document that the Available Capability (AC) of an energy storage asset can be restated within T-2 for an Acceptable Operational Reason. However, we are unclear about how frequently this should be done and recommend that additional guidance provided by the AESO minimize the requirement for frequent AC restatements.</p> <p>A BESS's State of Charge (SOC) can change minute-by-minute and result in a large volume of restatements if this requirement is not further rationalized. Our concern is that this can result in a significant administrative and compliance burden on the owner of a BESS as well as overwhelm the AESO with unnecessary/excessive submissions.</p> <p>We understand that the owner of the BESS is expected to make offers based upon the expected AC for the delivery hour; however, this requires the owner to predict whether they will be dispatched in energy. This will result in situations where the owner predicts wrongly that the BESS will be in merit/out of merit and result in ACs and offers being less/more than the actual SOC and necessitate AC restatements. The owner has no intent to misstate the BESS' capability but rather the inaccurate AC/offers are a result of the complexity of predicting merit orders and BESS dispatch.</p> <p>There are other cases, such as when owners are selling operating reserves from the BESS, where the owner will have no way to predict if they will be directed to provide operating reserves and for how long the directive will last. In such circumstances, the owner SOC and AC will track the AESO's directions and energy instructed to be discharged from the BESS. This could result in numerous AC restatements being submitted to the AESO in very short periods of time.</p> <p>We encountered a similar issue with respect to the pilot program for wind generation where AC was being restated on nearly a minute-by-minute basis to match energy output – this was practice was subsequently clarified, rationalized and modified by the AESO so that AC restatements were only necessary when there was a derate/outage that impacted the capacity of the wind generator rather than for changes in wind</p>

		<p>generation energy output.</p> <p>TransAlta recommends that, at a minimum, the AESO should state its expectation on the magnitude of change to AC that the BESS should restate. For example, stipulating that a &gt; 5 MW or &gt; 10 MW change in AC requires a restatement could significantly reduce the frequency of restatements while still providing the system controller the information he/she requires to dispatch the market. An ideal solution would be to mirror the requirements for wind generation, where no AC restatement is required unless the BESS is derated or on outage. In such situations the AESO may be able to view the AC/SOC of the battery through the SCADA or other data feed to provide the information required to the system controllers.</p>
3.	Additional comments	No comments at this time.

Thank you for your input. Please email your comments to: [energystorage@aeso.ca](mailto:energystorage@aeso.ca) .