

April 26, 2022

To: The Market Surveillance Administrator, market participants and other interested parties
("Stakeholders")

Re: Energy Storage Next Steps

Further to the letter the AESO posted on November 30, 2021, the AESO is of the view that it is important to progress the development of the proposed amendments to ISO rules to enable energy storage ("Energy Storage ISO Rule Amendments") at this time.

The Energy Storage ISO Rule Amendments build off the AESO's 2021 [Long-term Energy Storage Markets Participation Draft Recommendation Paper](#), which was part of long-term implementation of the energy storage integrated plan detailed in the AESO's 2019 [Energy Storage Roadmap](#). During ISO rule development, the AESO identified new issues relating to the integration of hybrid facilities into the technical rules. In addition to seeking general feedback on the other Energy Storage ISO Rule Amendments, the AESO will be requesting specific stakeholder input on options for approaching hybrid facility technical requirements in the ISO rules.

The Energy Storage ISO Rule Amendments are premised on the legislative changes to the *Electric Utilities Act* and *Hydro Electric Energy Act* proposed in *Bill 86: Electricity Statutes Amendment Act, 2021* during the 2nd session of Legislature 30. The AESO plans to move forward with the Energy Storage ISO rule Amendments on the assumption that similar legislation will be introduced in the current Legislative session. To the extent that there are differences between Bill 86 and any new electricity legislation, the AESO will assess the need for revisions after the current Legislative session has concluded.

As noted in the table below, the AESO will post the Energy Storage ISO Rule Amendments on the AESO website on **May 9, 2022**. The **June 9, 2022** deadline for stakeholder feedback is aligned with the last day of the current Legislative session to allow Stakeholders to review and comment on the Energy Storage ISO Rule Amendments in consideration of any legislation that is introduced.

Impacted ISO Rules & Definitions

Appendix I and II to this letter lists the ISO rules & definitions impacted by the Energy Storage ISO Rule Amendments. In summary, the AESO is proposing:

- amendments to 44 existing ISO rules and 42 existing definitions; and
- 1 new ISO rule and 2 new definitions.

Several of the impacted ISO rules & definitions also contain administrative amendments¹. To ensure Stakeholders have a holistic understanding of the Energy Storage ISO Rule Amendments, the AESO will post an overview of the substantive and administrative changes along with the blacklines of the ISO rules & definitions.

¹ As defined by *AUC Rule 017: Procedures and Process for Development of ISO Rules and Filing of ISO Rules with the Alberta Utilities Commission*

Proposed Consultation and Timeline

The AESO recognizes that there are a significant number of industry initiatives and proceedings happening in 2022. The AESO has taken the regulatory calendar into consideration and is proposing a consultation timeline that provides Stakeholders with more time to conduct an initial review of the Energy Storage ISO Rule Amendments and accommodates competing priorities during the summer months.

Date	Consultation Step
May 9, 2022	AESO posts draft Energy Storage ISO Rule Amendments
June 9, 2022	Initial Stakeholder feedback on draft Energy Storage ISO Rule Amendments due
June-August, 2022	<i>Break</i>
September 2022	Virtual or hybrid Stakeholder module sessions
October-December 2022	AUC Rule 017 ISO rule comment process on final proposed Energy Storage ISO Rule Amendments

The AESO intends to use the initial round of Stakeholder feedback to identify: (a) items that can be quickly resolved; and (b) issues that require further discussion and engagement with Stakeholders. The latter will be the primary focus of the September sessions, where the AESO plans to use a module approach to organize the sessions by topics and issues so Stakeholders may attend the sessions that are relevant to them. The AESO intends to complete the AUC Rule 017 written comment process on the final proposed Energy Storage ISO Rule Amendments in Fall 2022.

The AESO is committed to maintaining a flexible approach to the Energy Storage ISO Rule Amendments. If, after the initial round of Stakeholder feedback, the AESO determines that there is a more effective and efficient way to manage priorities and achieve objectives, the AESO will alter the above approach to the consultation steps listed.

Questions or comments in relation to the above may be submitted to rules_comments@ieso.ca.

Sincerely,

Jackie Gow

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Appendix I: List of ISO Rules Impacted by Energy Storage ISO Rule Amendments

New ISO Rules
Section 203.5, <i>Consumption Requirements for Energy Storage</i>

Amended ISO Rules
Section 103.4, <i>Power Pool Financial Settlement</i>
Section 201.7, <i>Dispatches</i>
Section 202.2, <i>Short-Term Adequacy and Supply Shortfall</i>
Section 202.3, <i>Issuing Dispatches for Equal Prices</i>
Section 202.4, <i>Managing Long Lead Time Assets</i>
Section 202.5, <i>Supply Surplus</i>
Section 202.6, <i>Adequacy of Supply</i>
Section 203.1, <i>Offers and Bids for Energy</i>
Section 203.3, <i>Energy Restatements</i>
Section 203.4, <i>Delivery Requirements for Energy</i>
Section 205.2, <i>Issuing Dispatches and Directives for Operating Reserve</i>
Section 205.4, <i>Regulating Reserve Technical Requirements and Performance Standards</i>
Section 205.5, <i>Spinning Reserve Technical Requirements and Performance Standards</i>
Section 205.6, <i>Supplemental Reserve Technical</i>
Section 205.8, <i>Transmission Must-Run</i>
Section 301.2, <i>ISO Directives</i>
Section 302.1, <i>Real Time Transmission Constraint Management</i>
Section 303.1, <i>Load Shed Service</i>
Section 304.3, <i>Wind and Solar Power Ramp Up Management</i>
Section 304.4, <i>Maintaining Network Voltage</i>
Section 304.7, <i>Event Reporting</i>
Section 304.8, <i>Event Analysis</i>
Section 304.9, <i>Wind and Solar Aggregated Generating Facility Forecasting</i>
Section 306.3, <i>Load Planned Outage Reporting</i>

Amended ISO Rules
Section 306.4, <i>Transmission Planned Outage Reporting and Coordination</i>
Section 306.5, <i>Generation Outage Reporting and Coordination</i>
Section 306.7, <i>Mothball Outage Reporting</i>
Section 501.10, <i>Transmission Loss Factors</i>
Section 502.1, <i>Aggregated Generating Facilities Technical Requirements</i>
Section 502.3, <i>Interconnected Electric System Protection Requirements</i>
Section 502.5, <i>Generating Unit Technical Requirements</i>
Section 502.6, <i>Generating Unit Operating Requirements</i>
Section 502.7, <i>Load Facility Requirements</i>
Section 502.8, <i>SCADA Technical and Operating Requirements</i>
Section 502.9, <i>Synchrophasor Measurement Unit Technical Requirements</i>
Section 502.13, <i>Battery Energy Storage Facility Technical Requirements</i>
Section 502.14, <i>Battery Energy Storage Facility Operating Requirement</i>
Section 502.15, <i>Reporting Facility Modelling Data</i>
Section 502.16, <i>Aggregated Generating Facilities Operating Requirements</i>
Section 504.3, <i>Coordinating Energization, Commissioning and Ancillary Services Testing</i>
Section 504.4, <i>Coordinating Operational Testing</i>
Section 505.2, <i>Performance Criteria for Refund of GUOC</i>
Section 505.3, <i>Coordinating Energization, Commissioning and WECC Testing Activities</i>
Section 505.4, <i>Coordinating Operational Testing</i>

Appendix II: List of Definitions Impacted by Energy Storage ISO Rule Amendments

New Definitions
“energy storage resource”
“Fast Frequency Response Service”

Amended Definitions
"acceptable operational reason"
"aggregated generating facility"
"Alberta internal load"
"allowable dispatch variance"
"automatic generation control"
"automatic voltage regulator"
"available capability"
"black start capability"
"bulk transmission line"
"collector bus"
"commercial operation"
"commissioning"
"control centre"
"electrical islands"
"energy storage facility"
"generating asset steady state"
"generating unit"
"governor or governor system"
"gross real power"
“in merit”
"incremental generation costs"
"legal owner"
"Load Shed Service"

Amended Definitions
"long lead time asset"
"loss factor"
"market participant"
"maximum authorized charging power"
"maximum authorized discharging power"
"maximum authorized real power"
"maximum capability"
"merit order"
"operational deviation"
"operator"
"point of connection"
"point of supply"
"pool asset"
"ramping"
"scheduled generator outage"
"sink asset"
"source asset"
"transmission facility"
"transmission must-run"