

October 28, 2022

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

**Re: Energy Storage Next Steps**

The purpose of this letter is to update Stakeholders on: (i) revisions to the structure of the technical and operating ISO rules to implement "aggregated facility" as part of the proposed amendments to ISO rules to enable energy storage ("Energy Storage ISO Rule Amendments"); and (ii) next steps in the AESO's consultation process.

The AESO hosted two virtual Stakeholder sessions in September 2022, aimed at addressing comments provided by Stakeholders during the initial round of feedback.<sup>1</sup> Following the Stakeholder sessions, the AESO has been working to incorporate Stakeholder feedback into the draft Energy Storage ISO Rule Amendments.

The AESO originally anticipated publishing the final Energy Storage ISO Rule Amendments on October 28<sup>th</sup>, 2022. However, due to the additional effort required to properly structure the technical and operating rules to be inclusive of all forms of energy storage, the AESO now expects to publish the final rules for Stakeholder review and comment in **mid to late November 2022**.

**Implementation of "Aggregated Facility"**

As part of the May 9<sup>th</sup>, 2022 voice over presentation, the AESO presented two options to integrate hybrid facilities (i.e., different technologies co-located on the same site) into the technical and operating ISO rules:

- **Option 1:** was to amend "aggregated generating facility" to "aggregated facility" to apply to the aggregation of generating units, energy storage resources, or a combination thereof. In this option, an "aggregated facility" includes a hybrid facility, as well as an aggregation of the same technology type.
- **Option 2:** was to keep "aggregated generating facility" and adopt new definition of "hybrid facility". For this option, new ISO rules applicable to "hybrid facility" would be developed and the task would be to incorporate "hybrid facility" into existing rules where necessary.

Based on Stakeholder feedback received on June 9<sup>th</sup>, 2022, Stakeholders recommended that the AESO move forward with Option 1 and use "aggregated facility" to account for all combinations/aggregations of any technologies on the same site. Stakeholder sessions were held in September to further discuss implementation of Option 1 and the integration of aggregated facilities into the ISO rules.

The AESO agrees with Stakeholders that moving forward with Option 1 is still the preferred approach. However, as the table below illustrates, most of the current technical and operating ISO rules in Division 502 apply to a single technology type, which has created difficulties in clarifying the requirements that apply to co-located resources of different technology types. The shift to recognize all co-located resources as "aggregated facilities", and specifically account for the unique technical and operating requirements that apply to aggregated facilities containing energy storage resources, has resulted in the need to restructure the "technology-based" ISO rules in Division 502 entirely to a "requirement-based" approach.

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<sup>1</sup> Stakeholder Comments - Energy Storage ISO Rule Amendments. [Stakeholder-Comment-Letter-ES-S1-LoN-2.pdf \(aeso.ca\)](#)

“Technology-based” ISO Rules <i>Rule only applies to a single technology</i>	“Requirement-based” ISO Rules <i>Rule applies to all technologies</i>
Generating Unit Technical Requirements (502.5)	Interconnected Electric System Protection Requirements (502.3)
Generating Unit Operating Requirements (502.6)	Automated Dispatch & Messaging System Requirements (502.4)
Aggregated Generating Unit Technical Requirements (502.1)	SCADA Technical & Operating Requirements (502.8)
Aggregated Generating Unit Operating Requirements (502.16)	Synchrophasor Measurement Unit Technical Requirements (502.9)
Battery Energy Storage Facility Technical Requirements (502.13)	Revenue Metering System Technical & Operating Requirements (502.10)
Battery Energy Storage Facility Operating Requirements (502.14)	Reporting Facility Modelling Data (502.15)
Load Facility Technical Requirements (502.7)	

### Requirement-based Approach

The requirement-based approach entails (i) moving the existing technical and operating requirements in Sections 502.1, 502.5, 502.6, 502.13, 502.14, and 502.16 into “requirement-based” ISO rules that are titled based on the subject matter of the requirements (e.g., reactive power requirements, voltage regulation, etc.); and (ii) adding to or supplementing those existing requirements as required for foreseeable forms of energy storage. The same technology terminology will continue to exist; however, the revised ISO rules will group together requirements that are common to all technologies and identify where requirements differ based on technology type.

The AESO has determined that adopting the requirement-based approach will: (i) properly clarify what the technical and operating requirements for energy storage are; (ii) move the needle toward more technology-agnostic rules, as recommended by Stakeholders in the June 10<sup>th</sup>, 2022 feedback;<sup>2</sup> and (iii) streamline future ISO rule updates for new technologies or technological requirements that are currently not contemplated.

### Proposed Consultation and Timeline

The target dates for the remaining consultation steps for the Energy Storage ISO Rule Amendments are listed in the table below. As a result of the significant structural change to adopt the requirement-based approach described above, the AESO is open to conducting additional stakeholder consultation in January 2023, if it is required by Stakeholder to have a holistic, common understanding of the Energy Storage ISO Rule Amendments.

Target Date	Consultation Step
November 21, 2022	AESO posts final Energy Storage ISO Rule Amendments
December 16, 2022	Stakeholder feedback on final Energy Storage ISO Rule Amendments due
January 2023	Additional stakeholder consultation, if required AESO replies to Stakeholder feedback
Q1 2023	Application filed with the Commission

<sup>2</sup> See AESO Written Responses to Initial Stakeholder Comments, page 2. [AESO-Written-Responses-to-Initial-Stakeholder-Comments.pdf](#)

The AESO thanks Stakeholders for their ongoing, active participation and flexibility in this engagement. Questions or comments in relation to the above may be submitted to [rules\\_comments@aeso.ca](mailto:rules_comments@aeso.ca).

Sincerely,

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