

# Energy Storage Engagement and Progress Update

August 31, 2021

## *OUR ENGAGEMENT PRINCIPLES*

**Inclusive and Accessible**

**Strategic and Coordinated**

**Transparent and Timely**

**Customized and Meaningful**

# Energy Storage Roadmap Update

- Provide a quarterly progress update on energy storage activities:
  - Share progress update on the Energy Storage Roadmap integration activities since the May 2021 update;
  - Provide an update on activities planned for Q4 2021;
  - Provide an update on interrelated initiatives; and
  - Provide an opportunity for stakeholders to submit questions on the update information provided.

“The information contained in this document is for information purposes only. As such, the AESO makes no warranties or representations as to the accuracy, completeness or fitness for any particular purpose with respect to the information contained herein, whether expressed or implied. While the AESO has made every attempt to ensure the information contained herein is timely and accurate, the AESO is not responsible for any errors or omissions. Consequently, any reliance placed on the information contained herein is at the reader’s sole risk.”

# What's new since May?

- There are three ES connected projects to the AIES
- There are 17 projects currently on the connection list:
  - AltaLink Greengate Jurassic MPC
  - ATCO Mercer Hill
  - ATCO Michichi Creek
  - BluEarth Bindloss MPC
  - BowArk Drywood
  - Federation Marguerite Lake CAES
  - EDTI DG Solar
  - Fortis Alberta Buffalo Creek
  - Fortis Alberta Killarney Lake
  - Fortis Alberta Metiskow
  - Greengate Luna MPC
  - Greengate Midnight MPC
  - Georgetown MPC Battery
  - Sol Aurora Solar Battery
  - Vega Solar Battery
  - TPG Canyon Creek
  - TCE Saddlebrook
- Two of these projects have in-service dates in 2021
  - ATCO Mercer Hill
  - Fortis Alberta Buffalo Creek

- Activities completed since the last update
  - Awarded and executed agreements with two providers
  - Completed kick-off meetings with each provider
- Next Steps
  - Coordinate, with each provider, the completion of SCADA/communications, invoicing, and functional testing requirements
  - Each provider is targeting to start their one-year service term in Q4 of 2021
- Further information on the FFR Pilot is available on the AESO's website: <https://www.aeso.ca/market/ancillary-services/fast-frequency-response/>
- Questions can be directed to [EnergyStorage@aeso.ca](mailto:EnergyStorage@aeso.ca)

- ESILF 4<sup>th</sup> workshop planned for November 2021; invite to be sent to the members, Alberta Energy, Market Surveillance Administrator (MSA) and the Alberta Utilities Commission (AUC) once date is confirmed
- Inviting presenters from other jurisdictions to share their learnings on energy storage; agenda to be included in invite to ESILF members
- As done with previous sessions, presentations and summary of the workshop will be posted on [www.aeso.ca](http://www.aeso.ca)



# Looking ahead

# Cross-functional internal work continuing through 2021

- AESO cross-functional teams finalized the assessment on required internal changes (tools, systems and processes) to integrate ES based on the Market Participation; recommendations were approved for implementation
- Implementation work to start in Fall 2021 and continue through 2022
- The AESO is incorporating the recommendations of the different work streams into a single ISO rules engagement process
- Work on proposed ISO rule changes in progress; further information on this process can be found in the AESO website:

<https://www.aeso.ca/stakeholder-engagement/rules-standards-and-tariff/energy-storage-rule-amendments/>

# 12-month Rolling Timeline

Classification	ES Roadmap Integration Activities	2021 Q2			2021 Q3			2021 Q4			2022 Q1		
		A	M	J	J	A	S	O	N	D	J	F	M
Education and Awareness	<b>ES Progress Updates – UPDATED</b> Share progress on the Energy Storage (ES) Roadmap integration activities, interrelated initiatives and provide a forum to address stakeholder questions.		E			E			E			E	
	<b>ES Industry Learnings Forum (ESILF) – UPDATED</b> Organize forum to provide expertise and key learnings to the AESO on targeted matters related to the integration of energy storage in Alberta.								E				E
Phase 2 Long-term Implementation	<b>ISO Tariff Design – RESUMED</b> Work in concert with ISO tariff design to ensure ES is considered.	Progress will align with Bulk and Regional Tariff Design											
	<b>Forecasting, Planning and Market Reports*</b> Develop and implement forecasting and planning models to support Long-term Outlook (LTO) and Long-term Transmission Plan (LTP).	C	I, E (only pertaining to AESO internal changes) <i>*These work streams provided input on potential ISO rule changes to enable storage and will continue to provide support to the single ISO rule changes process as required.</i>										
	<b>Configuration, Qualification and Connection Requirements*</b> Develop appropriate functional specification documents; identify market participation options, permissible configurations, and metering requirements for ES.	C											
	<b>Market Participation*</b> Evaluate long-term options for energy storage participation in the Energy and Ancillary Service markets.	C											
	<b>Operations*</b> Perform technical studies for the review of the operating parameters and requirements for the different types and configurations of ES; identify the impact to the connection processes and system applications to enable full range of ES operation.	C											
	<b>ISO Rule Changes</b> Based on the work performed by the different cross-functional teams, the AESO will conduct a single consultation process under AUC rule 017 to develop and file the proposed	Progress and information will be provided as part of the Energy Storage Rule Amendments process											

**E – Engagement:** inform and/or discuss topics with Stakeholders

**A – Analysis:** internal work phase for the AESO where an activity is researched, performed analytics, studies, etc.

**C – Conception:** after analysis, AESO will conduct an options analysis and may develop recommendations on the matter.

**D – Development:** AESO shares recommendations and works with stakeholders to create proposed ISO rules or changes to existing ISO rules.

**I – Implementation:** includes changes to IT, business processes and training to integrate ES.

# Interrelated Initiatives Update

- The AESO is proposing to expand eligibility for Demand Opportunity Service (DOS) to include energy storage in the Bulk & Regional Rate Redesign

- Final DOS modernization was presented on June 24, 2021 at Session 6B

<https://www.aeso.ca/assets/documents/Presentation-Session-6B-June-24.pdf>

- Draft rate provisions will be shared for written feedback by Sept. 7, 2021

<https://www.aeso.ca/stakeholder-engagement/rules-standards-and-tariff/bulk-and-regional-tariff-design/>

- Bulk & Regional Rate Design application being filed with Alberta Utilities Commission by Oct. 15, 2021

# Next Steps

- Continue with ISO rules development
- Start internal work for changes
- ESILF workshop 4 planned for November 2021
- Next progress update session planned for November 2021
- If you have questions related to this update, please email [EnergyStorage@aeso.ca](mailto:EnergyStorage@aeso.ca) with the subject *ES Q3 Update* by Sept. 10, 2021



- **Twitter:** @theAESO
- **Email:** [energystorage@aeso.ca](mailto:energystorage@aeso.ca)
- **Website:** [www.aeso.ca](http://www.aeso.ca)
- Subscribe to our stakeholder newsletter



**Thank you**