

# Stakeholder Feedback and IESO Response

## Hybrid Integration Project – January 26, 2023

Following the January 26, 2023 engagement webinar on the Hybrid Integration Project (HIP), the Independent Electricity System Operator (IESO) received general feedback from participants on the presentation.

The IESO received feedback from:

- [Capstone Infrastructure](#)
- [Energy Storage Canada \(ESC\)](#)
- [Ontario Federation of Agriculture](#)

The presentation materials and stakeholder feedback submissions have been posted on the [Hybrid Integration Project webpage](#). Please reference the material for specific feedback as the below information provides excerpts and/or a summary only.

### Notes on Feedback Summary

The IESO appreciates the feedback received from stakeholders. The IESO has provided a summary below, which outlines specific feedback or questions for which an IESO response was required at this time.

## General Comments/Feedback

Additional general comments were provided by ESC and Capstone Infrastructure, and these points are included in the table below.

**Feedback****IESO Response**

ESC continues to encourage the IESO move forward with the design of a foundational model for hybrid facilities. Given the size the timing of the upcoming capacity needs, we believe that hybrid resources will be an important participation model to support resource development and the enhancement of existing generation resources.

ESC would appreciate if the IESO could elaborate on the rationale for proceeding with the enhanced co-located model without the integrated co-located model. In this scenario, a co-located model would be modeled under a new enhanced storage design, while the integrated model would have storage assets operating under the current interim storage design.

The IESO does not prioritize the implementation of the enhanced integrated model as EPRI's analysis showed that there are minimal system benefits when moving from the foundational integrated model to the enhanced integrated model. The enhanced co-located model does provide material system benefits above the foundational co-located model due to state of charge modelling, which is not possible with an integrated model. For these reasons, the IESO will prioritize the implementation of the enhanced co-located model above the enhanced integrated model.

**Feedback****IESO Response**

We believe that there needs to be more coordination between the various design enhancements. For example, the IESO has indicated that it would proceed with the enhanced model for stand-alone storage in advance of the enhanced hybrid participation models. In this scenario, standalone energy storage would benefit from the enhanced participation, while hybrid resources would be required to operate under the existing interim storage design.

Would it be possible for the IESO to advance the enhanced participation models for stand-alone storage and hybrids simultaneously? To what extent could changes in parallel lead to savings in the long-term given fewer steps to complete the planned changes.

Implementing the enhanced co-located model at the same time as the enduring standalone storage model is one of the possibilities the IESO is currently exploring. In general, implementing different models at the same time results in project savings rather than implementing models in separate, distinct projects. The timelines and overall implementation plan for all enhanced models under the Enabling Resources Program (ERP) will be developed through 2023 with updates communicated to stakeholders when they become available.

Feedback	IESO Response
<p>While new-build hybrids appear to have been eligible in the IESO’s E-LT1 RFP Process (“E-LT1”), Hybrid Expansions (as defined by the Hybrid Integration Project and via the IESO’s FAQ’s) do not appear to have been eligible. It is not clear how subsequent processes (ie. LT1, LT2, MT RFPs, etc.) will address the underlying contractual and market-based uncertainty facing Hybrid Expansions.</p> <p>Additional barriers and considerations include:</p> <ul style="list-style-type: none"> <li>• Some of the first wind generator contracts expire in the mid 2020’s, and based on posted E-LT1 timelines, Hybrid Expansion proponents would need to contract immediately to achieve a corresponding in-service date (ie. 2025/2026).</li> <li>• It may be challenging to run an efficient, standardized process that contemplates re-contracting various types of non-emitting resources across Ontario with different contract types, locations, expiry dates, repowering capabilities, etc. – alongside standalone new-build resources of different types. How will the benefits of hybrids factor into potential Rated Criteria? Will hybrids have an allocated number of MW’s to be procured vs standalone?</li> <li>• A capacity contract (E-LT1, LT1, etc.) may not be the optimal commercial framework to incent both repowering an existing non-emitting site (whose current contract is based on energy production), while enabling new investment into a co-optimized battery designed with net-zero integration and system-capacity needs in mind.</li> <li>• The IESO’s Hybrid Integration Project and Market Renewal are conceptual frameworks that require further design using real-world projects and contractual and commercial inputs.</li> </ul> <p>A blended contract framework that includes both an energy AND capacity component, with sufficient term so as to incent long-term investments may be the appropriate option.</p>	<p>Thank you for the feedback from a developer’s perspective. As with other projects under the ERP, the Hybrid Integration Project is focused on developing participation models which enable new resource types to participate in IESO-administered markets. ERP does not develop the rules or framework around the IESO Resource Adequacy procurements and contracting. We would encourage developers to provide this sort of response or feedback to the IESO contracting and procurement engagements so that it can be considered when developing contracting processes, rules and procedures.</p>