

Feedback Form

Hybrid Integration Project – January 26, 2023

Feedback Provided by:

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Following the January 26, 2023 webinar on the Hybrid Integration Project, the IESO is seeking any general feedback from participants on the presentation.

The referenced presentation can be found under the January 26, 2023 entry on the [Hybrid Integration Project webpage](#).

Please provide feedback by February 16, 2023 to engagement@ieso.ca. Please use subject: *Feedback: Hybrid Integration Project*. To promote transparency, this feedback, if provided in an AODA-compliant format (e.g. using this form) will be posted on the [Hybrid Integration Project webpage](#) unless otherwise requested by the sender.

Thank you for your time.

General Comments/Feedback

We appreciate the hard work done to date by IESO on this critical initiative. Hybrid Expansions (including the extension and or repowering of existing non-emitting generators alongside the addition of new-build battery expansions) can deliver significant ratepayer benefits including lower cost energy and capacity, while enabling our transition to a low-carbon economy. According to the IESO's published Active Generator List, there are approximately 2 Gigawatts of transmission-connected wind generation project contracts expiring in Ontario in the next 10 years (that figure does not include other technologies, or distribution-connected non-emitting generator capacity).

In the United States, approximately 40 Gigawatts of hybrid capacity is online or in construction / development. The recent announcements by the Federal Government regarding a Canadian Investment Tax Credit (“ITC”) could spur significant interest in Hybrid Expansions, but currently there is no clear pathway for Ontario to take advantage. Various regulatory and market barriers prevent Hybrid Expansions in Ontario and there are no active large-scale Hybrid Expansions online today. Advancing Hybrid Expansion projects will pay dividends to ratepayers in direct and indirect benefits, while unlocking a substantial market opportunity.

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.

Additional barriers and considerations include:

- 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).
- It may be challenging to run an efficient, standardized process that contemplates recontracting 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?
- 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.
- 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.

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.

The IESO has made great progress assessing hybrid potential in Ontario through the Hybrid Integration Project and beginning to contemplate these resources and models (ie. co-located, integrated, other) through Market Renewal and stakeholder engagement. However, more work is likely needed using operating assets and real-world data given potential in-service timelines and market needs. For example, the results of the recent EPRI report do not appear to fully-value (both direct and indirect) the potential for Hybrid Expansions in Ontario.

Hybrid Expansions can deliver significant Ratepayer benefits, while supporting important government objectives:

Delivering Significant Ratepayer benefits

- Lower-cost capacity and energy solutions, especially ahead of projected capacity shortfalls
- Higher performance assets using optimized non-emitting generators and batteries
- Shovel-ready projects leveraging savings from existing infrastructure, de-risking execution and accelerating project timelines
- Increased GHG reductions from maximizing non-emitting output and displacing traditional resources in the supply mix
- Securing the long-term future of existing non-emitting assets, that already deliver good value
- Protecting ratepayers and improving system flexibility and reliability
- Mitigating system curtailment risks and price volatility seen in other markets with increasing non-emitting penetration

Supporting Government Objectives

- Strong community and Indigenous support as well as local economic development & jobs
- Incenting billions of dollars of near-term investment into Ontario
- Maximizes impacts of Federal funding from a Canadian ITC (repowering + BESS expansion)
- Reduces red tape and prepares IESO for broader hybrid participation and grid innovation, faster
- Resolves issue of potentially stranded, non-emitting expiring resources in Ontario

We look forward to working with you and sharing our ideas on how best to support an energy transition that creates investment, jobs, reduces emissions, and ensures continued prosperity in Ontario.