

Stakeholder Feedback and IESO Response

Hybrid Integration Project – April 22, 2022

Following the April 22, 2022 engagement webinar on the Hybrid Integration Project (HIP), the Independent Electricity System Operator (IESO) received feedback from participants on the foundational participation models, as well as on the enhanced participation models and participation model study being conducted by EPRI.

The IESO received feedback from:

- [Electricity Distributors Association \(EDA\)](#)
- [Energy Storage Canada \(ESC\)](#)
- [Evolugen by Brookfield Renewable \(Evolugen\)](#)

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.

Foundational participation models

Two stakeholder submissions included comments and recommendations with respect to the foundational participation models. One stakeholder provided suggestions on the connections process, and another sought clarity on the timelines for implementation. These points are summarized in the table below.

Feedback	IESO Response
<p>EDA:</p> <ul style="list-style-type: none"> Commented that the connections process applicable to wholesale market participants were developed during a slower period of resource development, and merit being reviewed and potentially updated to be more scalable and to align with the anticipated magnitude or timing of supply needs as described in the IESO’s Annual Acquisition Report (AAR). 	<p>The IESO believes that the connection processes are adequately streamlined and scalable, as outlined in the response at the link. If warranted as procurement activities progress, the IESO may review its connection processes.</p> <p>https://www.ieso.ca/-/media/Files/IESO/Document-Library/engage/hip/hip-20220317-response-to-feedback.ashx</p>
<p>ESC:</p> <ul style="list-style-type: none"> Sought specificity with timelines for implementation, noting that it would be reasonable to ensure the foundational model for hybrids is available in time for all upcoming IESO procurements, including newly announced procurements (e.g., uprates, expedited, and forward capacity auction), that will require in-service deadlines by 2025. 	<p>The IESO is currently identifying the requirements for implementation of the foundational hybrid facility models in the IAMs, including potential changes to market rules, market manuals, procedures, business processes and systems. Both foundational models are planned to be implemented to facilitate procurement timelines, and the IESO expects that the co-located model can be implemented sooner due to limited impacts. Once requirements are confirmed, the IESO will provide an update on timelines for changes to governing documents.</p>

General Comments/Feedback

All three stakeholder submissions included additional feedback and/or general questions, which are included in the table below.

Feedback	IESO Response
<p>EDA:</p> <ul style="list-style-type: none"> The EDA supports the IESO’s focus on the Hybrid Integration Program and proposes that the IESO and LDCs establish coordinated approaches for reviewing existing processes as well as new processes (e.g., to ensure that they are adequate to handle the volume of activity anticipated through the IESO’s upcoming procurements). As is outlined in the IESO’s AAR, an unprecedented amount of resource development is needed in Ontario. This is expected to result in both new resources and uprated resources being connected, whether to the transmission grid or to the distribution grid. Storage offers the potential to ‘firm up’ (e.g., reduce variability) the capacity of existing and new resources as the forecasted need for electricity supply grows. 	<p>Thank you for this feedback. If warranted once procurement activities have progressed, the IESO will consider whether the established processes for connecting to the IESO-controlled grid need to be reviewed in coordination with LDCs.</p> <p>In the meantime, procurement proponents including those with LDC-embedded projects are encouraged to begin discussions with the IESO regarding their projects as early as possible. For more information on connection assessment, please contact IESO Connection Assessments at connection.assessments@ieso.ca.</p>
<p>ESC:</p> <ul style="list-style-type: none"> Ontario needs a significant amount of new electricity supply in the near term. ESC believes hybrids will play an important role in meeting these needs and urges the IESO to move forward expediently with implementation of the foundation hybrid model and establishing a plan to ensure the enduring design is future-proof. 	<p>As noted above, the IESO is currently identifying the requirements for implementation of the foundational hybrid facility models in the IAMs. Work on the enhanced participation models is beginning, and will consider evolution of the system and markets.</p>
<p>Evolugen:</p> <ul style="list-style-type: none"> While the enhanced and EPRI models show promise in the better optimization of hybrid resources, the uncertainty of their implementation timeline (including that of the foundational model, which is planned to be implemented post-MRP) and a lack of confirmed market design (including Market Power Mitigation rules that would not unfairly penalize dispatch in high pricing situations) make investment decisions and 	<p>As noted above, the IESO is currently identifying the requirements for implementation of the foundational hybrid facility models in the IAMs. Both foundational models are planned to be implemented to facilitate procurement timelines, and the IESO expects that the co-located model can be implemented sooner due to limited impacts. Once requirements are confirmed, the IESO will provide an update on timelines for changes to governing documents. Work on the</p>

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<p>RFP participation challenging. More clarification on the interconnection process, in particular on how an interconnection point's existing "room" could be shared with a new storage device, would also help developers size their potential RFP offers. In addition, the various fees related to the interconnection process (e.g., technical feasibility study, CIA and SIA...) and the procurement processes (e.g., deposits for the RFQs and RFPs) present a financial risk for RFP participants who need to commit resources to hybrid projects whose market designs (and therefore revenue and cost streams) are incomplete and unknown. Finally, we reiterate the importance of clarity and coordination with other regulators vis-à-vis the permitting process to shore up developer confidence to participate in the RFPs.</p>	<p>enhanced participation models is beginning and their future implementation will be explored as part of the Hybrid Visioning exercise which will be finalized by the end of this year.</p> <p>Information explaining the purpose and impacts of market power mitigation was provided in the February 24, 2022 presentation. Connection processes and regulatory matters were addressed in previous responses to feedback, and through the stakeholder engagement presentation on April 22, 2022.</p> <p>All RFP-related questions, including barriers related to fees for procurement or IESO processes, should be addressed to the LT RFP engagement.</p> <p>https://www.ieso.ca/en/Sector-Participants/Engagement-Initiatives/Engagements/Long-Term-RFP</p>