

Stakeholder Feedback and IESO Response

Hybrid Integration Project – December 16, 2021

Following the December 16, 2021 engagement webinar on the Hybrid Integration Project (HIP), the Independent Electricity System Operator (IESO) received feedback from participants on the market design work, as well as procurement considerations.

The IESO received feedback from:

- [Canadian Renewable Energy Association \(CanREA\)](#)
- [Capital Power](#)
- [Energy Storage Canada \(ESC\)](#)
- [Workbench Energy](#)

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.

Market design work

"Does the content presented in the December 16 meeting reflect your understanding of the market design work required for the foundational models?"

Stakeholder submissions included comments indicating the content presented was reflective of their understanding of the market design work required. Additional comment on the topic is included in the table below.

Feedback	IESO Response
ESC stated they believe the IESO has identified the appropriate design features that need to be addressed through additional consultation, and also sought clarification if the implementation of the hybrid foundational models is contingent on the MRP; and if so, if there are contingencies that would need to be considered if there are any delays in the MRP go-live date.	A delay in MRP implementation could impact when the hybrid models can be implemented but the IESO will ensure the implementation of hybrids will be complete by the beginning of the LT RFP commitment period at the latest.

"Are there any elements to the market design work missing?"

Stakeholder submissions included comments confirming there are not any elements to the market design work missing.

Procurement considerations

"What are stakeholder thoughts with regards to the procurement considerations for the foundational participation models?"

Stakeholder submissions included comments on procurement considerations, including the comments summarized in the table below.

Feedback	IESO Response
Capital Power voiced support for efforts to complete detailed design work necessary for the full consideration of hybrid projects in the LTRFP, but did note that the aggressive timelines may challenge best efforts from both the IESO and stakeholders.	The IESO intends to provide the hybrid design document in Q2 2022 to clarify the design for proponents of the LT RFP, and will support stakeholders to address questions and concerns in preparation for the LT RFP through ongoing stakeholder engagements and/or one-on-one discussions.

Feedback	IESO Response
<p>Capital Power also encouraged the IESO to remain open to considering issues that impact the design of commercial arrangements, and the eligibility of existing contracted facilities to utilize either foundational model when submitting qualifications and bids as part of the LTRFP process.</p>	<p>Thank you for this feedback. The IESO looks forward to further engagement with stakeholders beginning with the commencement of a dedicated LT procurement engagement in February 2022. As part of this engagement, eligibility is an important design element that the IESO will consult with the stakeholder community on. In terms of hybrid resources, the participation models proposed by the IESO's Hybrid Integration Project are fundamental to enabling hybridization of existing facilities and new facilities in the LT RFP.</p>
<p>ESC noted the procurement considerations emphasize participation in the LTRFP, and sought clarity on if Hybrids would also be eligible in future MT RFPs or in future Capacity Auctions.</p>	<p>The hybrid participation models proposed by the IESO's Hybrid Integration Project is currently working towards introducing hybrid participation models for the IESO-Administered Markets. This work is fundamental to enabling hybridization of existing resources, and new hybrid projects through future acquisition mechanisms, including the LT RFP. Eligibility for future MT RFPs and Capacity Auctions is yet to be determined and the IESO will provide this information in future stakeholder engagements.</p>
<p>ESC also recommended that consideration be given with respect to the "term length" of an existing facility, and a potential future term of added storage to an existing generator.</p>	<p>Term length is understandably an important component of the LT RFP, and for an existing facility looking to hybridize, will likely only apply to the new resource added to that facility.</p> <p>The IESO is launching a dedicated LT procurement engagement in February 2022, and looks forward to further discussion on term length and considerations for hybridized resources at that meeting.</p>

General Comments/Feedback

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

Feedback	IESO Response
<p>CanREA</p> <p>In the “Day in the Life” description for the Integrated Hybrid Model, it will be useful for the IESO to describe the bid/offer behaviour that a market participant would use in order to charge the storage directly from the generator.</p>	<p>The IESO plans to hold a discussion with stakeholders on hybrid energy market participation, including storage charging, as part of the upcoming stakeholder engagement session on January 27.</p>
<p>Workbench Energy</p> <p>In the Foundational Model #1 – Co-Located Hybrid, IESO is building on the existing dispatchable generator and the interim storage resource models. This Foundational Model will be considered as an operational model in the post-market renewal environment, and will be included as an eligible resource type for the LT-RFP. The LT-RFP stakeholdering and design will happen through 2022, with contracts offered in 2023 for market integration/operation in May 2029 for a 7-10 year contract. The concern here is that by building one of the foundational models for hybrid resources on the interim storage design, the IESO may introduce hurdles in the path of transitioning from that interim design to a working and workable final storage design. We are looking for assurances that work on finalizing the storage design is neither ignored nor handcuffed by new participation models being locked into the interim design.</p>	<p>The IESO’s intention for identifying foundational hybrid participation models is to provide clarity to market participants on ways to integrate storage technology into the IESO-administered markets. Future incremental enhancements to the storage and hybrid models, as applicable, would be discussed with stakeholders as part of a future initiative, including understanding impacts. The IESO would like to better understand Workbench’s specific concerns and will be in contact for more information.</p>