Feedback Form

2023 Annual Acquisition Report (AAR) – February 23, 2023

Feedback Provided by:

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Following the February 23, 2023 engagement webinar, the Independent Electricity System Operator (IESO) is seeking feedback from stakeholders on the items discussed during the webinar. The webinar presentation and recording can be accessed from the engagement web page.

Please submit feedback to engagement@ieso.ca by **March 9**. If you wish to provide confidential feedback, please submit as a separate document, marked "Confidential". Otherwise, to promote transparency, feedback that is not marked "Confidential" will be posted on the engagement webpage.

Questions Directed at All Resource Types

Topic	Feedback
Do you agree with the IESO recognizing market exit as an uncertainty and its intention to consider that some facilities exit the market in its analysis?	We do agree this is an uncertainty and consideration towards facilities exiting the market without adequate price signals should be considered. However, IESO should also consider that most of the facilities that are approaching end of contract term are still in very good condition and could run for another 10 or 15 years or longer with proper operation and maintenance activities. Given the anticipated upward shift in the demand curve IESO should consider including their analysis that some of those existing generators will not exit the market but require some certainty around participation and contract structure. Furthermore, reinvesting in existing assets and adding batteries could deliver significant ratepayer value in the long-run.

Topic	Feedback
Do you expect your facility to participate in the next 5-10 years? What are some considerations that may impact participation?	Yes, our facility Erie Shores Wind Farm is actually one of the first, if not the first, non-emitting generators with a contract expiry in 2026. A list of consideration that might impact participation are as follow: - **Condition of the asset for life extension** – currently we are working on an engineering analysis to determine the useful life of the asset. Preliminary results indicate at least 10 more years of operating life. - **Contract Structure** – Currently IESO has not provided a clear path forward for variable generation re-contracting which does not fit in any of the running procurement activities. It is important to note that a clear energy contract structure is required immediately for proponents to plan for asset life extension. - **Repowering** – Based on experience from current IESO procurements timelines we believe that at least 3-5 years prior to contract expiry is required to complete a full repower of the facility, so in other words "immediately". IESO should also consider a contract bridging option for assets with near term contract expiry to allow extension for few years coupled with a longer term contract after repowering. - **Hybrid Expansion** – We are seriously considering hybrid expansions, however we do not feel a capacity contract (E-LT1, LT1, etc.) is the appropriate 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 energy storage designed with net-zero integration and system-capacity needs in mind, furthermore, timelines impacting battery supply chain highlight the importance of rapidly resolving these challenges such that existing assets have sufficient time to add batteries prior to contract expiry and ahead of stated capacity short-falls in Ontario

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Facilities require regular maintenance and operational activities throughout their lifecycle. At what year of life would your facility require significant capital investments to extend its usable life? How long of a commitment would you expect to pay-off significant capital investments?	Based on our experience we believe that a significant capital investment might be required 2-3 years before end of life/contract term expiry. It is difficult to estimate a pay-off period without completing the life extension study and understanding contract structure and price point, however we are anticipating in case of significant maintenance capital investment a minimum of 10 years commitment would be required. While we are referencing the capital investment as "significant" it wouldn't be comparable to a new build and would still be considered a lower cost energy solution given existing interconnection and community support which would be reflected on the energy price and hence delivering significant ratepayer benefits
How can existing assets be maximized? What is needed for these facilities to stay and continue operation?	Reiterating what was mentioned above we believe the following list summaries the needs to continue operating: - Life extension analysis to determine remaining useful life of the asset and required capital investments for reliable operation. - Clear commercial framework from IESO regarding contract extension to meet demand requirements while maintaining lower cost non-emitting generation. - Enabling repowering and/or hybrid expansion on existing facilities with a framework that would allow an integration between Energy and Capacity contracts to maintain system reliability while endeavoring to protect Ontario's low carbon electricity advantage
Is repowering your facility(ies) with a renewable fuel an option for future participation, and if so, what would be the earliest timeline for this?	We have not considered renewable fuel option and rather focused on repowering with same technology coupled with energy storage.

Questions Directed at Natural Gas Facilities

Topic	Feedback
How do you interpret the expected Clean Electricity Regulations (CER) in terms of the impact on the future operation of your facilities, including for emergency use purposes?	Uncertainty surrounding market price signals creates risk
What impact will the rising federal carbon price have on the operation of your facilities in 2030 and beyond?	Uncertainty surrounding market price signals creates risk

Other

Topic	Feedback
Has the IESO missed any considerations in terms of the future participation of existing resources?	It appears from what we have seen, that the full value (system benefits, renewable integration, local needs, etc.) for hybrid projects are not fully valued in IESO assessments. Please reference comments provided into the Hybrid Integration Project: https://www.ieso.ca/-/media/Files/IESO/Document-Library/engage/hip/hip-20230216-capstone-infrastructure.ashx

General Comments/Feedback

For the reasons above, we recommend consideration be put forward as follows:

- A commercial framework designed to existing renewable generators with near term expiring contracts to allow re-contracting, life extension and repowering. IESO needs to start initiating conversation with these projects and provide a clear direction on IESO's plans for these assets.
- A blended contract framework in Ontario for Hybrid Expansions that includes both an energy and capacity component, with sufficient term so as to incent long-term investments.
- We believe the IESO has made good progress beginning to assess 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, we feel more work is needed using operating assets and real-world data given potential in-service timelines and market needs.