

Stakeholder Feedback and IESO Response

2023 Annual Acquisition Report – February 23, 2023

The 2022 APO identified a number of risks and uncertainties to Ontario’s resource adequacy outlook, including market exit as a result of an aging fleet and policy uncertainty. To further explore some of the risks identified in the APO, in early 2023 the IESO held focused engagement sessions with stakeholders to discuss the future participation of resources considering the large amount of capacity set to expire in the coming decade. Following the February 23, 2023 Annual Acquisition Report (AAR) Stakeholder Engagement session, the Independent Electricity System Operator (IESO) received feedback on the materials presented. This document summarizes the feedback received.

The IESO received feedback from the following stakeholders:

- Canadian Biogas Association
- CanREA
- Capstone Infrastructure
- Convergent Energy and Power
- EDF Renewables
- Electricity Distributors Association
- Energy Storage Canada
- Evolgen by Brookfield Renewable
- Kruger Energy LP
- Ontario Power Generation
- Ontario Rivers Alliance
- Power Workers’ Union
- Validus Power

Stakeholder feedback provided following the February Engagement Session has been posted on the 2023 Annual Acquisition Report Stakeholder Engagement [webpage](#). Stakeholder feedback has been summarized by high-level themes and IESO responses have been provided. The IESO appreciates all feedback received from stakeholders and has found it to be very valuable in informing content covered in the 2023 AAR.

Recognition of Market Exit as an Uncertainty

Stakeholders acknowledge it would be prudent for the IESO to include market exit as an uncertainty in the 2023 AAR to account for risks to reliability as this recognizes the many factors being considered with regards to the continued participation of facilities. Some risk factors identified were asset age, corporate strategies, recovery of capital investments, revenue and policy uncertainty and opportunities elsewhere. All of these factors may impact the level of participation of existing facilities in Ontario's market.

While acknowledging the risk of market exit and agreeing that it should be accounted for in the AAR, many stakeholders indicated that facilities approaching end of contract term are in good condition and can continue operating in a safe and reliable manner with proper operation and maintenance activities. Stakeholders indicated that costs to support these activities, as well as capital investments required on aging assets, would need to be recovered through an IESO acquisition mechanism.

Stakeholders look forward to the IESO continuing the dialogue on market exit and cautioned on making pre-emptive decisions on specific assets prior to future policies on decarbonization.

IESO Response

The IESO appreciates the input provided by stakeholders on considerations for future participation of their resources and the potential for market exit as a risk. Based on the input received, the 2023 AAR will consider the risk of market exit in developing the set of planned actions, while recognizing the significant policy uncertainty with respect to decarbonization and the resulting impact on the participation of resources.

Considerations for Future Participation of Existing Assets

Stakeholders indicated a preference to continue operating assets beyond current contract expiry, and the many factors under consideration can vary significantly across assets. Some of these considerations include:

- **Sufficient Lead Time for Decision Making** – Stakeholders require clear and transparent signals into future re-acquisition options in order to make informed decisions and indicated the amount of lead time required is dependent on the extent of the capital investments required.
- **Amount of Capital Investment** – Stakeholders indicated there is a wide range of potential capital investment injections, with the amount depending on the resource and the various options being considered. Asset owners require assurance of mechanisms to sufficiently recover costs to ensure revenue adequacy.
- **Condition of Existing Assets** – Many stakeholders indicated that facilities are in good condition with the useful life extending beyond end of contract, however an amount of capital expenditures as well as proper operation and maintenance activities are required for continued operation.
- **Transmission Infrastructure** – Required to ensure continued operations and or to accommodate upgrades or re-powering existing facilities.
- **Policy and Regulatory Uncertainty** - Specifically with the Clean Electricity Regulations (CER) and its impacts on the future participation of natural gas fired facilities.
- **Competing Opportunities** - Exporting or competition for capital investment opportunities outside of Ontario could potentially offer longer and more predictable contract terms or for existing customer needs.
- **Energy Market Risk** – Due to Market Renewal uncertainties including price and market power mitigation potentially affecting offer behaviour.
- **Municipal Support and Project Siting** – Depending on future plans for an existing asset securing municipal support and land planning considerations will be factored into decision making.

In considering the various factors listed above stakeholders have indicated that they are exploring a range of options, some of which require a significant level of capital investment:

- Operating facilities until end of life, which would require some capital investment;
- Extending the life of facilities, which would require significant capital investments;
- Re-powering facilities (e.g., re-building to replace old and less efficient equipment, co-locating with storage, re-powering with hydrogen).

IESO Response

The IESO acknowledges that several stakeholders would like to continue operating their facilities beyond contract expiry and are faced with a number of factors within and outside of their control, impacting decisions pertaining to future operations. The IESO will continue to work with stakeholders to ensure acquisition mechanisms are designed to provide suitable opportunities that support the options stakeholders are exploring. For the factors that are within the IESO's control, including providing sufficient lead team for making decisions, the IESO intends to provide as much lead time as possible. The IESO plans to begin engagement on subsequent procurements for existing resources with contracts expiring before 2035.

Future Resource Acquisition Opportunities

Stakeholders indicated that in order to plan for the future participation of their existing assets, sufficient lead time and insight into the IESO's future acquisition activities is required. This includes information on the type of product that will be valued in future acquisitions, the mechanisms to procure the various products and plans to design procurement tools that are appropriate for the resource being contracted. Stakeholder suggestions for future acquisitions included:

- More frequent acquisitions with smaller targets;
- Ensuring that procurements are simple and less prescriptive;
- Establishing a roadmap of anticipated procurement opportunities to provide stability and the necessary investment signals;
- Exploring alternative types of commercial arrangements including for specific fuel types;
- Introducing flexible term lengths and potential for competition between proponents on term length;
- Allowing bridging opportunities for existing contracts to account for the necessary lead time for re-powering or extending the useful life of an existing facility;
- Providing incentives for products other than capacity, such as considerations for energy in future contract structures; and
- Providing longer contract terms to send the appropriate investment and development signals, that can be adjusted as needed as other procurement opportunities arise.

In addition to considerations regarding future acquisition opportunities, stakeholders have highlighted the importance of ensuring that Conservation and Demand Management (CDM) activities are captured as a potential solution to meet energy and capacity needs.

IESO Response

The IESO appreciates stakeholders putting forth a number of considerations for future acquisition opportunities. The 2023 AAR will signal anticipated system needs to be addressed through upcoming acquisitions. The IESO will begin working with stakeholders on subsequent acquisition opportunities including taking into account the considerations provided through this engagement. In terms of CDM, the 2023 AAR will highlight the greater role it can play in meeting future incremental capacity and energy needs, leveraging the results of the refreshed joint IESO and OEB 2019 Electricity and Natural Gas CDM Achievable Potential Study (APS) and recommendations from the Mid-Term Review and Pathways to Decarbonization Study.

Considerations for Repowering Existing Facilities

Stakeholders indicated that repowering of existing facilities is an option being considered but sufficient lead time is required prior to contract expiry to account for planning, securing financing, managing supply chain challenges and construction timelines. In addition, appropriate re-acquisition mechanisms and longer contract terms are required to incent asset owners to re-invest in facilities to extend their useful life.

Asset owners with natural gas facilities indicated several challenges with repowering existing facilities with a renewable fuel such as hydrogen. Some of these challenges include:

- The scale of modifications required to retrofit an existing resource is significant, and may equate to building a new facility;

- The technological readiness of renewable fuels, which are currently not commercially available at scale and are unlikely to be ready for the IESO’s acquisition timelines;
- Significant modifications and capital investment would be required to a facility to fuel-blend with hydrogen at a level that would result in a significant reduction in carbon emissions. Currently, emissions reductions from blending lower amounts of hydrogen into existing facilities (which does not require significant modifications to a unit) are relatively low.

Asset owners with non-emitting facilities expressed interest in repowering stand-alone existing facilities as well as hybrid expansions, but indicated the contract structure of the IESO’s current procurements (capacity only) is not suitable to renewable facilities. In addition, asset owners indicated uncertainty with regards to how renewable facilities may be re-acquired is making planning for these facilities challenging and increases the potential for market exit.

IESO Response

The IESO recognizes that asset owners are considering various options with regards to the future participation of their assets, and that sufficient lead time is required to allow for the most optimal option to be pursued. The 2023 AAR takes into consideration some of the challenges that stakeholders have identified in repowering of existing facilities, and these factors will be considered in the design of future competitive procurements.

Factors Impacting Natural Gas Facilities

Stakeholders indicated that a significant amount of uncertainty exists regarding the future participation of natural gas facilities in Ontario. Upcoming government policy, including the federal draft Clean Electricity Regulation and policy stemming from the provincial government’s consultation on the IESO’s Pathways to Decarbonization Study are some of the factors under consideration. Other factors include:

- Potential volatility in the price of oil and gas in the coming years;
- Increased generation costs for natural gas facilities as a result of the carbon tax;
- Increasing cost-competitiveness from non-emitting resources such as wind and solar that may decrease the desirability of natural gas; and
- Uncertainty in the IESO’s future procurements and the ability to recover capital investments

IESO Response

The IESO acknowledges that there are many uncertainties that asset owners with natural gas facilities are facing as a result of anticipated government policy and other external factors. These uncertainties pose a risk to the ability to meet the future reliability needs that were identified in the 2022 APO. With Ontario being in a period of demand growth and numerous uncertainties related to the set of supply resources, actions are needed to acquire capacity to meet future needs. The IESO’s upcoming AAR takes various uncertainties into consideration in developing the set of planned actions to ensure that future reliability needs are addressed.

Considerations for Distributed Energy Resources

Stakeholders raised considerations for the IESO regarding Distributed Energy Resources (DERs), including:

- **Role of DERs:** Prioritize optimizing DERs given the untapped potential they present in addressing system needs, in-line with the various IESO studies and reports which have validated their reliability and economic benefits;
- **Market Exit Analysis:** Consider broadening analysis to include facilities beyond those under an IESO contract, specifically DERs; and
- **Acquiring DERs:** Provide a greater emphasis on mechanisms to acquire these resources, including for existing and new DERs.

IESO Response

The IESO recognizes the important role of DERs in addressing system needs and continues to engage with stakeholders on the DER integration activities set out in the [DER Roadmap](#), with a number of pilot programs and initiatives currently underway. The AAR will reference the various DER initiatives underway to support the integration of DERs into the wholesale market. As the IESO engages with stakeholders on subsequent acquisition opportunities, stakeholders will have an opportunity to provide feedback on design considerations.

The IESO has taken a first step in engaging stakeholders on market exit and the 2023 AAR will begin to acknowledge it. Market exit will continue to be an important uncertainty and an evolving topic in future planning assessments.