

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
<ul style="list-style-type: none"> - 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? 	<ul style="list-style-type: none"> - YES – This is a real uncertainty and therefore, the IESO should be planning for certain assets to exit the market over the course of the planning period. - In its assessment, the IESO should aim to clearly identify when, where and by how much they have accounted for market exit. - In order for the IESO to mitigate that uncertainty going forward, it would be prudent to provide clear and predictable expectations around the options for existing assets to recontract or repower – over what period of time- and by what means (i.e., competitive bids, contract extension negotiations for short, medium and long term, etc.) - However, given the limited land available for new generation projects in high needs areas, combined with the significant market needs likely to materialize over the planning horizon due to load growth/electrification and decarbonization policies, careful consideration must be given before an electricity generation site is closed or considered to be unavailable following contract expirtation date. Key considerations would include: <ul style="list-style-type: none"> • How does the retirement of the facility impact both near- and medium-term reliability and GHG targets? • Given future load growth scenarios, does the site have future system value from a locational and/or operational perspective? • Do future investments (load or transmission) make the site more valuable in the future? • Could the site be repurposed with other investments, such as repowering, expansion or firming (such as the addition of storage)? • What is the price impact of the energy source and how will that price change over the planning period (ie CER/Carbon pricing, etc) - CanREA recommends that the IESO aim to clarify, as soon as possible, what contracted asset owners can expect in the way of consultation on considerations for post-contract opportunities to continue to operate in the Ontario market. This should clearly

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	<p>focus on the identification of system need as well as the options available to provide revenue adequacy.</p>
<ul style="list-style-type: none"> - Do you expect your facility to participate in the next 5-10 years? - - What are some considerations that may impact participation? 	<p>Many CanREA members have sites whose contracts expire in the next 5-10 years. In fact, a number of projects will see their contracts expire even sooner and, in absence of any appropriate IESO signal for these assets, are making their plans according to current (poor) market conditions. Considerations can vary significantly depending on the asset and 2-3 years notice is bare minimum requirement for re-contracting and a worse case scenario we would like to avoid – THEREFORE – effort should be to clarify framework where there are several pathways as soon as possible.</p> <p>The considerations vary significantly from asset to asset and more information is required in order to determine ongoing participation over any period of time.</p> <p>CanREA notes that given the information currently available, the large majority, if not all, of those non-emitting resources would close unless the IESO amends its approach to these resources. This is because:</p> <ul style="list-style-type: none"> - Energy Market risk is high due to Market Renewal uncertainties and generators are unlikely to rely on merchant energy forecasts for continued operations - While energy market prices may be forecasted to rise on peak or on average due to increasingly

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	<p>expensive gas generation on the margin, variable generators can have less ability to capture those prices.</p> <ul style="list-style-type: none"> - The Medium-Term RFP (MTRFP) is currently designed as a capacity procurement, which is not feasible for short term extensions for existing variable generators. - While the Long Term 1 RFP (LT1RFP) may present some opportunity for hybrids, the current design is likely to make them uneconomical when compared to stand-alone storage. - It is therefore incumbent on the IESO to reconfigure its current approach to procurements, to provide the right incentives for energy and/or hybrid projects, with clear and stable timelines, and to ensure the province leverages its existing, low cost, non-emitting assets to meet the significant needs identified in the Annual Planning Outlook (APO).
<ul style="list-style-type: none"> - 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? 	<ul style="list-style-type: none"> - This varies depending on the resource. Generally speaking, wind and solar projects should be able to continue operating their existing facilities for at least 5 additional years post contract with relatively minimal maintenance. This would allow for approximately 20% reduction to current PPA prices over that period (note this assumes output would continue to decline over that period). - Planning for this type of extension would require as advanced contracting notice as possible (read:immediate outreach for some assets) so that companies can make appropriate decisions around maintenance projects and/or decommissioning. - However, at the end of those 5 or more additional years, the site would likely require a major repowering investment to continue operating. The five additional years of production would be leveraged as transition planning to repower or decommission occurs. We view this as a short term re-contracting option that would lead to a

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	<p>repowering option and would provided the timeframe required.</p> <ul style="list-style-type: none"> - On the other hand, the sites could plan to repower now and could contract for another 20-year term (they would need this longer term to pay down the capital investments at a reasonable rate). This would provide a valuable price hedge for ratepayers whose costs may vary dramatically over that period with uncertain carbon pricing, electrification and decarbonization and the associated costs of transmission investments required to enable this. This repowering could be in the form of stand-alone renewable generation or fully integrated hybrid facilities and could likely increase output within the same siting footprint. Planning for this kind of initiative would require 4-5 years between contracting and COD due to required permitting, long lead time items in the supply chain, and construction schedules.
<ul style="list-style-type: none"> - How can existing assets be maximized? What is needed for these facilities to stay and continue operation? 	<ul style="list-style-type: none"> - As the system moves from a capacity-only need to a capacity and energy need, the IESO needs to better communicate with the sector what kind of product it will value in the future and the mechanisms it will employ to procure that power. This will focus companies on planning for the required investments to optimize projects to something more responsive to system needs and system operability. - Additionally, the IESO will need to simultaneously account for hybrid integration above and beyond the HIP initiatives already underway. - - Clear, consistent and timely communication about system needs is one key component in readying the sector for required investments. In recent years, the IESO has lacked sufficient advanced communication with the sector, forcing bilateral contracting for reliability reasons (Lennox and Brighton Beach for example) as well as expedited procurements. Looking ahead, the IESO is already lagging behind in giving this market clarity to the

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	<p>800MW currently produced by variable generators whose contracts expire by 2028 and who might require 5 years to repower their facilities.</p> <ul style="list-style-type: none"> - - Additionally, there are a number of generators under contract whose assets are connected through the Distribution system and as such, are not registered market participants. These generators need to be included in specific re-contracting considerations to ensure their unique status is appropriately accounted for. - Given the requirements of siting and permitting sites in Ontario, the IESO should avoid letting existing sites expire in the short term only to try to recontract them several years later. This puts at risk the ability to secure sufficient supply down the road as local planning changes and developments can eliminate our siting options. - - This next version of the AAR needs to send a clear signal to these resources regarding the IESO’s intent to provide real commercial opportunities for them beyond their contract life. This clear message needs to be quickly followed by plans to design procurement tools that are appropriate for the resource being contracted (extended energy contracts, repowered long term energy contracts, or repowered long term hybrid contracts). This schedule should keep in mind the lead times required as outlined in the response above.
<ul style="list-style-type: none"> - 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? 	<ul style="list-style-type: none"> - CanREA only represents renewable energy suppliers and energy storage suppliers and supports processes that accelerate the adoption of more non-emitting resources.

Questions Directed at Natural Gas Facilities

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<ul style="list-style-type: none"> - 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? 	<ul style="list-style-type: none"> - The CER will increase demand for non-emitting resources to displace more expensive fossil generation. This policy creates all the more urgency to reconfirm the continued (and increased) output from our existing non-emitting fleet while we also work to define opportunities for new generation from wind, solar, stand alone storage (included long-duration storage) as well as hybrid projects.
<ul style="list-style-type: none"> - What impact will the rising federal carbon price have on the operation of your facilities in 2030 and beyond? 	<ul style="list-style-type: none"> - As carbon prices rise, non-emitting resources will help mitigate rising market prices by providing zero marginal cost energy to ratepayers.

Other

Topic	Feedback
<ul style="list-style-type: none"> - Has the IESO missed any considerations in terms of the future participation of existing resources? 	<ul style="list-style-type: none"> - Click or tap here to enter text.

General Comments/Feedback

Thank you for your consideration of these comments. We look forward to ongoing discussions with the IESO to solve the supply challenges facing the province.

Please do not hesitate to contact me at any time.

Brandy Giannetta
Vice President Policy & Government Affairs
Canadian Renewable Energy Association

