

Leonard Kula
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April 13, 2021

Dear Leonard,

This submission responds to the Independent Electricity System Operator (IESO) March 22, 2021 presentation, *Resource Adequacy Engagement*¹, that provided IESO responses to stakeholders relating to IESO's January 26, 2021 resource adequacy presentation and next steps within the Resource Adequacy Engagement.

Power Advisory has coordinated this submission on behalf of a consortium of renewable generators, energy storage providers, and the Canadian Renewable Energy Association (the "Consortium"²).

The Consortium continues to support the high-level Resource Adequacy Framework (the "Framework"), and looks forward to working with IESO, market participants (MPs), and other stakeholders towards defining the details within the Framework through open and transparent engagements.

The subsections below provide comments and recommendations regarding some of the key components that were presented by IESO during the March 22 stakeholder engagement meeting.

IESO Feedback Following January 26 Webinar

The Consortium offers the following comments and recommendations regarding IESO's feedback on the last round of stakeholder submissions.

- Regarding enhancing transparency, governance, and decision-making within the IESO-Administered Markets (IAM), the Consortium is pleased that IESO has provided more details regarding how unsolicited proposals will be evaluated.³ However, two points need to be considered. First, in addition to evaluating unsolicited proposals, IESO should be transparent and disclose whether any unsolicited proposals or any other existing facilities or proposed projects will

¹ See <https://ieso.ca/en/Sector-Participants/Engagement-Initiatives/Engagements/Resource-Adequacy-Engagement>

² The members of the Consortium are: Canadian Renewable Energy Association; Axiom Infrastructure; BluEarth Renewables; Boralex; Capstone Infrastructure; Cordelio Power; EDF Renewables; EDP Renewables; Enbridge; ENGIE; Evolgen (by Brookfield Renewable); H2O Power; Kruger Energy; Liberty Power; Longyuan; NextEra Energy Canada; Pattern Energy; Suncor; and wpd Canada.

³ IESO provided further information relating to evaluations of unsolicited proposals during the February 17, 2021 Stakeholder Advisory Committee (SAC) meeting, located at <https://www.ieso.ca/en/Sector-Participants/Engagement-Initiatives/Stakeholder-Advisory-Committee/Meetings-and-Materials>.

be bilaterally contracted for through sole source negotiations (especially to meet IESO identified mid-term supply needs). Second, the issue of transparency, governance, and decisions-making goes beyond resource adequacy matters and therefore must also include MP and stakeholder recourse. For example, some aspects of the Market Renewal Program (MRP) Detailed Design will change the economics of resources operating within IAM (e.g., market power mitigation, etc.), and MPs may at times require specific processes to dispute IESO decisions, etc. Therefore, IESO must continue working with MPs and stakeholders to enhance transparency, governance, decision-making, and recourse more broadly within IAM – including resource adequacy and all other aspects within IAM (e.g., MRP, etc.).

- The Consortium is pleased that IESO plans to release its inaugural Annual Acquisition Report (AAR) in mid-2021. Considering that it is now April, IESO needs to start engaging with MPs and stakeholders on the scope and contents of the first AAR. The Consortium looks forward to participating within these engagement meetings. It will also be critical for IESO within AARs to clearly distinguish when new projects will be required for development to meet long-term supply needs as opposed to simply re-procuring existing facilities to meet these needs.

Resource Adequacy Framework General Update

The Consortium offers the following comments and recommendations regarding IESO's update on next steps to develop the details within the Framework.

- The Consortium supports the scope of Capacity Auctions as "short-term" and as an annual 'balancing' mechanism. Further, the Consortium supports IESO's plans to work with MPs and stakeholders to enhance the design of Capacity Auctions, and looks forward to participating within future engagement meetings.
- To create needed clarity, the timeframes that specify power system needs (i.e., "commitment period") must be defined. Therefore, the Consortium suggests the following definitions to which IESO should refer to as commitment periods:
 - "Short-term" should be defined as seasonal (i.e., summer and winter months) and no greater than 12-months;
 - "Mid-term" should be defined as greater than 12-months but less than 7-years; and
 - "Long-term" should be defined as greater than 7-years.
- The term "forward period" should be used, as was used frequently within past IESO resource adequacy stakeholder engagements, to indicate the time from when resources are procured (i.e., through Capacity Auctions, Request for Proposals (RFPs), etc.) to when they must be available to meet power system needs (i.e., to the start of the respective commitment period).

- To create further clarity, IESO should create a new term, “notice period”, indicating the timing between defining future power system needs and when procurement mechanism(s) will be launched to meet these needs. The “notice period” term will create clarity so as to not be confused with other timeframes (e.g., commitment period, forward period) to which power system needs are forecast to be realized (i.e., short-term, mid-term, long-term) and when they need to be met.
- The Consortium is pleased that IESO has offered scope regarding the upcoming April 2021 stakeholder engagement webinar and general topics to be covered throughout May to December for the remainder of 2021. However, as suggested in Appendix A, IESO should provide a more detailed schedule of topical meetings for the remainder of 2021.
- The Consortium supports IESO’s plans to administer an RFP to contract for resources to meet mid-term supply needs. While IESO has clearly stated that the scope of the RFP and associated contract template will be consulted on with MPs and stakeholders, IESO has suggested that generators with expired contracts (roughly from mid- to late-2020s) will be eligible to participate with this future RFP. The Consortium provides these three comments relating to the RFP and meeting mid-term supply needs. First, IESO needs to be clear on the timing of launching the RFP, therefore being clear when the scope of the RFP and template contract will be consulted on with MPs and stakeholders. Second, uprates to operating facilities (e.g., generators, storage, etc.) should be permitted to participate within the forthcoming RFP. For example, wind and solar generators may be able to co-locate storage ‘behind-the-meter’ towards helping to meet mid-term needs. Such projects should be afforded with the ability to compete with other generators (with expired contracts). Third, the Consortium notes that the first distribution-connected renewable generators with contracts expire in the 2024 to 2026 timeframe.⁴ Because these generators provide some level of resource adequacy to Ontario’s power system, but do not participate within IAM, they require specific programs to ensure continued operations, if determined feasible. Therefore, because this timeframe coincides with IESO’s identified mid-term supply needs, IESO needs to specifically engage in 2021 on designing programs for non-MP distribution-connected generators with expired contracts.
- Transmission projects (i.e., upgrades, expansions, new lines, etc.) need to be explicitly accounted for within the Framework. For example, two transmission projects located in southwestern

⁴ Some non-utility generator (NUG) hydroelectric generators with Power Purchase Agreements (PPAs) held with the Ontario Electricity Financial Corporate (OEFCC) that are ‘embedded’ or distribution-connected, and therefore not registered MPs within IAM, have PPAs expiring in 2024. Some ‘embedded’ or distribution-connected solar generators, not registered MPs within IAM, have Renewable Energy Standard Offer Program (RESOP) contracts expiring in 2026.

Ontario⁵ have been announced and endorsed by IESO, yet it is not clear how these projects were assessed versus other resource options (e.g., generation, storage, demand response, etc.).

IESO Plans to Evolve Capacity Auction Design and Rules

The Consortium offers the following comments and recommendations regarding plans to enhance Capacity Auctions.

- As stated within the Consortium's February 17, 2021 submission to IESO commenting on the January 26 presentation that referenced plans to develop unforced capacity (UCAP) metrics to determine resource adequacy supply contributions for all asset types (e.g., generators by fuel-type, storage, demand response, etc.), the Consortium recommends that the proper way to determine capacity values for variable generators is to perform an Effective Load Carrying Capability (ELCC) study.⁶
- The Consortium also recommends that capacity values should be determined on a seasonal basis and not an annual basis. This will result in a more efficient market and consistent with existing IESO practice of establishing separate summer and winter capacity targets within Capacity Auctions.

The Consortium will be happy to discuss the contents of this submission with you at a mutually convenient time.

Sincerely,



⁵ On March 29, 2021 (see <https://www.ieso.ca/en/Corporate-IESO/Media/News-Releases/2021/03/New-Electricity-Transmission-Line-to-Support-Economic-Growth-in-Southwest-Ontario>), IESO announced a new transmission line between Hydro One's Lambton transformer station and its Chatham switching station that will provide electricity to support rapid agricultural growth in the Windsor-Essex and Chatham areas. IESO has requested Hydro One to continue expanding electricity infrastructure in southwestern Ontario by building the 230 kV double circuit transmission line, which, if approved by the Ontario Energy Board, will be in service by 2028. On June 13, 2019 (see <https://www.ieso.ca/en/Corporate-IESO/Media/News-Releases/2019/06/New-Transmission-Line-to-Meet-Growing-Electricity-Needs-in-Southwestern-Ontario>), IESO requested Hydro One to develop and construct a transmission line to meet increasing electricity needs in the Windsor-Essex region. IESO is expecting electricity demand in the Windsor-Essex region to increase significantly due to strong agricultural growth, primarily from expansion in the greenhouse sector and, to a lesser extent, in the cannabis industry. The new transmission line, from Chatham to north of Leamington, will allow greater amounts of electricity to flow into southwestern Ontario from other parts of the province.

⁶ For further rationale see pp. 27-29, *Customer Focused and Clean Power Markets for the Future* (November 2018), see https://windsolaralliance.org/wp-content/uploads/2018/11/WSA_Market_Reform_report_online.pdf



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Julien Wu (Evolugen by Brookfield Renewable)
Stephen Somerville (H2O Power)
JJ Davis (Kruger Energy)
Deborah Langelaan (Liberty Power)
Jeff Hammond (Longyuan)
David Applebaum (NextEra Energy)
John O'Neil (Pattern Energy)
Chris Scott (Suncor)
Ian MacRae (wpc Canada)

Appendix A – Topics for Future Resource Adequacy Engagement Meetings and Structure of Meetings

The following Resource Adequacy Engagement topics are recommended by the Consortium regarding the organization of stakeholder engagement meetings for the balance of 2021 (and through 2022).

- Following components within the Framework require specific streams of stakeholder engagement
 - Potential Capacity Auction design enhancements and eligibility for participation within Capacity Auctions relative to other resource adequacy mechanisms
 - Scope, structure, and design of RFPs/contracts, so as to use ‘lessons learned’ from previous RFPs/contracts used within Ontario and other jurisdictions towards improving the structure and design of RFPs/contracts going forward, including eligibility for participation within RFPs/contracts relative to other resource adequacy mechanisms
 - Scope, structure, and design of specific programs (e.g., standard offers, etc.), so as to use ‘lessons learned’ from previous programs used within Ontario and other jurisdictions towards improving the structure and design of programs going forward
 - Define any circumstances and conditions where sole source negotiations may be appropriately used towards executing contracts (e.g., Reliability Must-Run (RMR) contracts⁷), including any framework to assess unsolicited project proposals, and establishment of principles (e.g., transparency, etc.) when sole source negotiations will be used to execute contracts
 - Reforms to governance, decision-making, and recourse framework within IAM relating to resource adequacy, as Appendix B clearly shows recent examples (e.g., previous Incremental Capacity Auction initiative, etc.) and resource adequacy mechanisms (e.g., December 2020 Capacity Auction, RMR contracts) that should be kept in mind when developing details within the Framework⁸

⁷ On April 8, 2021 (see <https://ieso.ca/en/Sector-Participants/IESO-News/2021/04/Agreement-with-Manitoba-Hydro-to-Support-Temporary-Reliability-Needs-in-Northwest-Ontario>), to support reliability of the power system in northwest Ontario, IESO announced it had concluded a new RMR contract with Manitoba Hydro for 100 MW of ‘standby’ capacity for September and October 2021. The East-West Tie Expansion, expected to be in service by March 2022, will maintain a reliable and cost-effective supply of electricity to northwest Ontario for the long term. However, until the expansion enters service, a local capacity need could occur if the current East-West Tie line goes out of service during drought conditions that reduce hydro output in the area. While unlikely, the chance of these conditions occurring is highest in September and October. Due to the local and limited nature of the potential need, an RMR contract with Manitoba Hydro was determined to be the most cost-efficient option.

⁸ Needed reforms to the governance, decision-making, and recourse framework within IAM are broader than resource adequacy, therefore distinct stakeholder engagement outside of the Resource Adequacy Engagement is also recommended. However, concerning resource adequacy, this issue still requires specificity within the Resource Adequacy Framework.

- Clearly define what is meant by “transition”, which existing facilities and projects will be included within any such categorization that has been used by IESO in previous Resource Adequacy Engagement meetings, what resource adequacy mechanisms may be used within the “transition” category, and identify how future resource adequacy needs may change if any of the identified facilities and/or projects are procured⁹

⁹ For example, on November 18, 2020, IESO announced that the Lennox GS (approx. 2,100 MW) will maintain operations post 2022 contract expiry through a contract extension or new contract (not clear which one). IESO should disclose if there are other resources that are being considered for contract extensions or new contracts.