Feedback Form

Long-Term 2 RFP – December 13, 2023

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To promote transparency, feedback submitted will be posted on the Long-Term RFP engagement page unless otherwise requested by the sender.

Following the LT2 RFP engagement webinar, the Independent Electricity System Operator (IESO) is seeking feedback from stakeholders on specific items discussed during the webinar. The webinar presentation and recording can be accessed from the engagement web page.

Please submit feedback to mailto:engagement@ieso.ca by January 15, 2024. If you wish to provide confidential feedback, please mark "Confidential". Feedback that is not marked "Confidential" will be posted on the engagement webpage.

Resource Adequacy Framework and Cadenced Procurement Approach

Topic	Feedback
Do you have any comments or concerns regarding the cadenced nature between upcoming LT and MT RFPs?	Evolugen by Brookfield Renewable appreciates the opportunity to provide comments. We support the cadenced approach of conducting procurements with firm and predictable target volumes. A coordinated schedule of procurement opportunities, awarding different contract lengths (i.e., MT & LT RFPs), allows developers and existing contract holders the flexibility to choose the best technical and economical solution to provide electricity products to the IESO. Nonetheless, no procurement schedule can perfectly match development and re-contracting/re-powering decision points. As such, the ability to convert and bridge MT contracts into LT contracts would enable more repowering of existing assets. Given this option, asset owners would be able to extend contract duration to secure revenue, then build a path to more complex proposals such as re-powering, expansion, and storage-pairing. We recommend the IESO adopt a flexible approach with regards to contract conversion, bridging, and extension mechanisms.

Do you have any comments or concerns regarding the proposed offering of both capacity style and new revenue model style of contracts, based on resource eligibility requirements and system needs?	We firmly oppose both revenue model proposals and see their adoption as a critical risk to the RFP's success. Neither contract styles will incentivize new non-emitting energy projects for the following reasons: - The capacity-style contract is a poor match for energy-focused procurements that target resources that do not have a high-capacity rating. It would not provide any meaningful incentive for proponents to participate under this model. - The "Enhanced PPA" concept shifts many unmanageable risks to the project proponent (e.g., generation hourly profile, price hourly profile, actual generation volume, curtailment risks, RECs revenues, Capacity revenues...). These risks will directly diminish project financeability, and will compound significantly over the 20+ year contract period. This revenue model will result in higher Revenue Requirements and proposal prices, and discourage proponents from participating in the RFP. The LT2-RFP is targeting a ~2030 COD date, giving proponents little time to produce a proposal and then execute the project should they be successful in the RFP. In parallel, the 2025 Market Renewal (MR) Implementation will completely revamp the energy markets. This emerging market redesign makes it impossible for proponents to rely on past HOEP historical data for their modeling work. As a result, MR will make it challenging for proponents to develop projects even under the traditional, fixed-priced bundled PPA revenue model. In other words, under the IESO's proposal, proponents will need to simultaneously consider an unfamiliar new energy market and a brand-new, unsuitable contract-type. This dual unfamiliarity, combined with the accelerated development timeline, would drastically increase financing costs, resulting in lower RFP participation and much higher offer prices. We urge the IESO to consider the tried-and-true traditional fixed-price PPA format that bundles Energy, Capacity and RECs. The ability to manage curtailments, dispatch-downs, and foregone energy payments can be achieved by sharing the risk between both counterparties. We welcome direct

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	discussions with the IESO on PPA structures that, while based on the fixed-price bundled PPA format, can nevertheless achieve the aforementioned risk-sharing. We also support the submission from the Renewable Consortium and CanREA on this issue.
Do you have any concerns regarding the proposed target setting approach for upcoming MT RFPs?	Yes. We are concerned that procurement targets for the MT-RFPs would be set arbitrarily lower than potential supply. While we understand the goal to incentivize competitiveness, this approach could neglect and strand existing projects that can deliver the same energy via re-powering or life-extension at much lower costs than new projects. In addition, an arbitrarily lower demand target could eliminate and strand projects that require a longer re-development timeframe. Put another way, the MT RFPs should be a means to extending contracts via competitive markets, so that contract owners can consider more complex solutions such as re-powering, storage-pairing, and/or uprates and expansions. We recommend the IESO set soft targets for the MT RFPs so that all supply options, including existing assets, can clear based on price alone.

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Do you have any comments regarding how best to employ bridging and extensions to contracts to facilitate the success of the Resource Adequacy Framework?	We are encouraged by the IESO's multiple procurement streams such as the Capacity Auction, Small Hydro Program, Northern Hydro Program, and the various RFP types...to not only procure new assets, but also to enable the re-powering and re-contracting of existing assets. As the latest Annual Planning Outlook and the Powering Ontario's Growth report show, existing and new resources are both necessary to meet Ontario's future demand for electricity. As such, we recommend once again that the IESO take a flexible approach to bridging and extension mechanisms, allowing resources the option to temporarily extend contracts and/or participate in shorter-duration procurement streams such as the Capacity Auction or the MT-RFP, before investment decisions can be arranged. Given this flexible approach, proponents and asset owners can then carefully consider: a) entering projects into longer-duration procurement streams at a lower cost, b) evaluating Full Repowering, uprates, expansions, and life extension options, and c) pairing assets with storage devices. The Ontario electricity sector is experiencing significant change, given the pending implementation of the Market Renewal Program and its various procurement initiatives. In this context, a flexible bridging and extension strategy would allow proponents and asset owners more time to optimize offer prices, coordinate with lenders, and focus on immediate priorities (e.g., RFP offer preparation). It would also reduce the risk of stranding assets that could contribute to Ontario's resource adequacy needs.

LT2 RFP Resource Eligibility and Timelines

Topic	Feedback
Do you have any general feedback on resource eligibility and timelines?	Please see our feedback below re: the "optimal threshold for what constitutes a partial or fully repowered facility" for a more detailed comment. In general, we support procurement processes that are: a) technology-neutral, b) precisely defined in the product that is being requested (e.g., Capacity? Energy? or bundled?), and c) primarily reliant on offer price to determine winning projects. There might be criteria driven by established policy and technical constraints, such as municipal support resolutions and deliverability testing, that could indeed help select projects, but the primary selection criteria should be based on price to reflect ratepayer interests. In this context, we recommend that eligibility should be drafted as flexible as possible to maximize RFP participation, so that proponents can decide what kind of project to offer. As long as energy delivery can be guaranteed for the contract length, the IESO should not artificially limit offer volume and participation. Overly prescriptive eligibility requirements would ultimately be detrimental to RFP clearing prices and harm ratepayer interests.
If the potential of repowering an existing facility applies to you, would you be interested in exploring this option further?	Yes, we are interested in repowering and uprating our existing facilities. We are also interested in pairing existing intermittent facilities with storage options to offer more capacity, energy, and ancillary services to the IESO. For example, while the LT2-RFP will target energy resources, an optional incentive mechanism in the RFP design to pair a new or existing energy-focused asset with storage would contribute to both system reliability and resource adequacy. To be clear, the RFP itself should be primarily evaluated on price, then on policy and technical constraints, but the inclusion of an optional "storage" incentive (e.g., a price-adder) would encourage proponents to consider this option. The design of this incentive mechanism can be consulted in future engagements.

How should the optimal threshold for what constitutes a partial or fully repowered facility be determined and what considerations should be taken into account regarding the repowering of different resource types?	Requiring existing facilities to invest in significant upgrades as a condition to participate in the RFPs would indeed result in winning projects providing more system benefits. However, various IESO planning reports indicate that simply re-contracting existing assets would be prudent to ensure long-term resource adequacy. As previously stated, we do recommend that the IESO provide incentives for proponents to pair existing assets with storage devices. However, assets that commit to Full Repowering, Partial Repowering, or simply life extension without significant upgrades should all compete in the RFPs on an equal footing. In short, the ability to deliver energy should be the only technical offer criteria. Encouraging RFP participation and increasing supply would ultimately improve competition and lower the RFP clearing price, to the benefit of ratepayers. The IESO generally commits to a technology-neutral principle in its procurements. The "kind" of product offered in a procurement should be irrelevant, as long as said product can satisfy the IESO's reliability and/or resource adequacy requirements. This principle would optimize competition outcome, as it would encourage proponents to choose the lowest-cost and most reliable product and technology that can satisfy the IESO's needs. In the same token, proponents who wish to invest in significant upgrades (defined as Full Repowering) should compete and receive their return-on-investment from the RFP process itself. In this scenario, a project that commits to Full Repowering could be rewarded more capacity and/or energy revenue than previously contracted. The incentive to invest should not be provided through an out-of-market mechanism that blocks offers from participation, nor in the form of a carved-out, separate RFP category that only Full or Partial Repowering projects can enter. This discriminatory proposal would not only reduce competition, it would also deny the IESO an option to immediately re-contract assets that are better suited and ready for life-extension. To be clear, whether an existing asset is technically and/or economically better suited for Full Repowering, Partial Repowering, or life-extension, is best decided by its owner. In turn, the same asset's re-

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	powering and/or re-contracting price should be decided by market competition. Again, an exception could be made to incentivize storage pairing, because the addition of a storage device confers grid benefits that are difficult to define in an energy-focused RFP. Adding a storage device to an intermittent asset, for example, would nominally keep its energy output the same, but it would provide additional capacity, ancillary, and dispatchability products to the IESO. It would be challenging to compare a "paired" project with energy-only projects offered in the same RFP. In this context, a direct incentive to such hybrid projects would not skew the RFP's outcome to be evaluated on an energy-only basis. Please see Quebec's recent wind RFP and BCH's draft power call proposal for example. Further, As discussed in our previous submissions to various engagements, the IESO should allow any uncontracted capacity, partial or otherwise, to participate in all of its procurement venues without discrimination. If a contracted facility can upgrade and expand its capacity and/or energy output above and beyond the original contracted amount, and this with the IESO's approval, the uncontracted, incremental electricity products should be considered merchant and monetizable in the Capacity Auction and/or various RFPs and Programs. For example, an asset whose capacity is partially contracted and partially merchant, should be allowed to enter the uncontracted portion of its capacity in the Capacity Auction and the MT-RFP.
What considerations should be taken into account for new-build DERs?	
Please express any interest and opportunities for uprates and/or expansions at any of your existing facilities.	Yes, we are interested in any opportunity for uprates and expansions, including storage-pairing, at all of our existing facilities.

LT2 RFP Design Considerations – System Congestion and Deliverability Approach

Topic	Feedback

What early system congestion information do proponents need to guide them in choosing the location of their projects and when is this needed by within the procurement cycle?	We are encouraged by the announcement that early system congestion information would be provided to proponents, and that the deliverability testing process would be improved. Siting has not only presented a major challenge to proponents who participated in recent RFPs, but also to municipalities, First Nation groups, and landowners who need to devote resources to respond to inquiries from proponents. Early, granular, and frequently updated information on congestion and deliverability would help streamline the site selection process and save costs and resources for all stakeholders. We urge the IESO to convene specific consultation sessions, with Hydro One's active participation, on congestion, deliverability testing, and all other related issues such as setback distance. In addition, just as the IESO is intending to adopt a cadenced approach for its future procurements, the release and update of system congestion and deliverability information should also follow a cadenced and regular schedule. Without matching congestion and deliverability information, the cadenced procurement process would not achieve an efficient outcome. To be more specific, we ask that the IESO release transmission capacity related information at the nodal level—similar to the information made available by Hydro-Quebec in their recent wind RFPs—so that proponents can strategically locate projects where it is technically feasible We also support the proposal from the Renewable Consortium and CanREA to eliminate deliverability testing as an RFP condition. The evolution of a project's deliverability over the life of a 20+year contract is impossible to predict, even for the IESO and Hydro One. As suggested in the previous paragraph, present day transmission capacity information can help the IESO direct project placement in areas of need and availability, but deliverability should be considered a continuous and fluid risk that all parties, including the IESO, Hydro One, the proponent, and load, should manage. We welcome further discussions with the IESO to help structure PPAs that can support curtailment risk-sharing.

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Do you have any general suggestions for how to approach deliverability evaluation in the LT2 RFP?	Again, we support eliminating deliverability testing. In turn, the IESO should consult and establish a mechanism by which proponents can opt to pay for system upgrades to optimize their project's deliverability. Many projects might have been unsuccessful in recent RFPs due to transmission constraints: some of these projects, if allowed to pay for system upgrades, could have been deliverable and would have increased the supply of economical offers. While we appreciate the commitment to improve the deliverability process, we note that the current process is too rushed and too opaque to minimize development costs—which directly translates into higher offer prices. Under the current setup, developers first commit significant siting and development costs, before they can test whether a project is deliverable or not and at what size. And in situations where a project is "deliverable but competing," which is not unusual, additional costs would be incurred and staff time committed until the final RFP award date to discover if the investment is successful or not. This approach results in significant sunk costs that can be avoided if better congestion information (e.g., granular interconnection limits) were released and established prior to an RFP, and if deliverability testing can be removed or at least conducted expeditiously and perhaps on an ad-hoc and rolling basis.

LT2 RFP Design Considerations – General Feedback

Topic	Feedback
Do you have any comments regarding the impacts that agricultural land-use limitations may have on project development?	The option of siting projects on agricultural land is critical to the success of the RFP. The Municipal and First Nation support requirements ensure that projects will be built within the framework set by each municipality's land use plan, which includes the protection of agricultural land. A provincial standard will overrule municipal decision-making processes and will restrict how a landowner may choose to develop their property.

Topic	Feedback
Do you have any comments regarding what evaluation criteria can be utilized to evaluate project readiness, given tight timelines and reliability needs?	As mentioned previously, we believe that project selection should primarily rest on price, then technical and social requirements. Nonetheless, we propose the package below as a Pass/Fail requirement to help assess the creditability of proponents and the realism of the project: 1. Project Master Plan: Require proponents to submit a package with all necessary permits and the dates they anticipate receiving them. To be clear, permits do not have to be obtained, just listed in this package. Additionally, a project schedule for the development asset which clearly indicates its critical path decisions and milestones. 2. Project Map: The distance of the nearest receptors to turbines or panels (or other relevant equipment to the project depending on technology selected), including a mapping of flood-plains and zoning requirements.
Do you have input on the proposed mechanism for valuing Indigenous participation?	We support Indigenous participation in project development, operation, and ownership. We also support flexible arrangements to allow First Nation communities to enter and exit projects, or increasing and decreasing their partnership percentage, at their discretion as long as the project group can keep the Indigenous participation level constant. For example, allowing one Indigenous group's project stake to be taken over by another Indigenous group should be accepted without penalties. We note that the Canada Infrastructure Bank (CIB) has initiated a new Indigenous Equity Initiative program. Under this program, the CIB will lend to Indigenous communities to provide them with access to capital to purchase equity stakes in projects in which the CIB is also investing. The CIB is actively discussing this program with other ISOs conducting procurements. We recommend that the IESO engage the CIB to allow Indigenous communities and their business partners access to all programs that would lower project offer prices.

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Are there any other rated criteria that should be considered?	Again, we believe that project selection should primarily rest on price, then technical and social requirements. Nonetheless, we present the following options adopted by other ISOs for the IESO's consideration. 1. Financial Capacity: As per the recent Hydro-Quebec Wind RFP, the IESO could assess the financial soundness of the bidder as determined by its credit rating from a rating agency. Points would be awarded to proponents based on this criterion—proportional to the quality of its credit rating. Additionally, the bidder could be asked to submit a financing plan (e.g., debt + equity), bank term sheets, and other items for evaluation. This would help to reduce the likelihood of clearing pre-mature projects that may not have indicative financing terms secured. 2. Developer Experience: Extra points can be awarded to proponents who have developed/constructed renewable generating assets in the last 10-15 years

Long Lead Time Resources

Topic	Feedback
Does the proposed approach to enabling long-lead time resources enable meaningful participation or sufficient certainty?	We support bifurcated procurement streams and volumes in the LT2-RFP that would isolate the procurement of long-lead time resources. To be clear, the procurement of long-lead time resources should be assigned its own fixed demand target volume that would be separate from the target volume procuring energy-resources. The two streams should not cannibalize each other's demand volume. Once again, we firmly oppose the Enhanced PPA model, which would be particularly unsuitable for the development of long-lead time resources. Long-lead time resources by nature require heavy front-loaded investments and longer development timelines, which in turn require longer contract-terms to secure financing, execute permitting and construction, and to lower overall project costs. However, the Enhanced PPA seeks to shift the curtailment risk to the proponent and would poorly account for actual real-time energy delivery. These factors render the enhanced PPA model unacceptable for project types that rely on very long-term contracts to be economical, as the risk of unpredictable curtailment and market evolution would be compounded by the longer contract length required. The LT2-RFP would not be successful for long-lead time resources under the enhanced PPA model.
What additional considerations should the IESO contemplate for enabling broader participation from long-lead time resources?	

Revenue Model

Topic	Feedback
As a potential proponent, are you generally supportive of the proposed Enhanced PPA revenue model? Are there any other considerations that the	No. We firmly oppose the proposed Enhanced PPA revenue model and see it as a significant risk to the RFP's success. Please also see our answers above for more information.

IESO should look into further with regards to the revenue model?	On slide 56 of the December 13th presentation, the IESO explained that the traditional fixed-price PPAs required foregone energy payments during curtailment events. As a result, the IESO believed that a different contract-type is now necessary to better manage curtailment risks. While we understand the importance of managing Surplus Baseload Generation and the need to sometimes curtail intermittent resources, we believe that this can be simply managed by making slight adjustments to the traditional PPAs. In addition, the Enhanced PPA not only shifts all curtailment risks to project proponents, it also creates many other significant issues addressed in the Renewable Consortium and CanREA's feedback submission. In short, the Enhanced PPA does not provide adequate revenue protection for project proponents. Regarding the comparison to a similar NYISO PPA model, we understand that the LT2-RFP is seeking an energy product that is likely to be intermittent to take advantage of their lower cost (e.g., wind). Consequently, the winning projects would likely be non-dispatchable and intermittent, and their owners would naturally seek to maximize real-time energy delivery to maximize revenue. In this context, shifting the curtailment risk to non-dispatchable assets would significantly harm their revenue expectations and discourage participation in the upcoming RFP. Moreover, intermittent assets in NYISO have access to predictable revenue streams—including the capacity auction, a larger energy market, and well-established environmental attribute markets. These market conditions do not exist in Ontario, where the capacity auction does not allow intermittent technology to participate, the energy market is dominated at 60% by rate-regulated assets, and the CEC market is only emerging. In sum, we urge the IESO to opt for the tried-and-tested, fixed-price and bundled PPA model, with explicit PPA adjustments to share and manage the curtailment risk between counterparties.

General Comments/Feedback