

Feedback Form

Long-Term 2 RFP – December 13, 2023

Feedback Provided by:

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Date: January 15, 2024

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
<p>Do you have any comments or concerns regarding the cadenced nature between upcoming LT and MT RFPs?</p>	<p>We are supportive of the cadenced nature of RFPs. Greater certainty on the projected future Energy and Capacity needs as well as specific commitments to RFP MW/MWh volumes and dates will enable more investment in project development.</p> <p>More clarity on dates would be helpful, as would the ability to participate in LT and MT procurements simultaneously.</p>
<p>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?</p>	<p>We are supportive of the two distinct contract structures provided that the “Enhanced PPA model” is abandoned and replaced with an indexed fixed price construct for Energy.</p> <p>Comments during the engagement around hybrids were difficult to follow with some proponents believing that hybrids were specifically excluded/included from LT2 – <u>Please Clarify</u></p> <p>We believe the capacity construct is much more efficient mechanism to procure battery storage. We do not believe that attempting to incent hybrid projects within energy procurements (though the value of time-shifting energy) will be successful at this time.</p> <p>With this in mind, if both energy and capacity needs are to be procured simultaneously in a future procurement, we urge the IESO to ensure that the value proposition is clear for each product (Energy/Capacity). An example to borrow from would be Solar plus Storage tolling agreements in CAISO where energy and capacity are separately compensated.</p>
<p>Do you have any concerns regarding the proposed target setting approach for upcoming MT RFPs?</p>	
<p>Do you have any comments regarding how best to employ bridging and extensions to contracts to facilitate the success of the Resource Adequacy Framework?</p>	<p>Bridging will be essential to ensure the continued participation of existing assets.</p>

LT2 RFP Resource Eligibility and Timelines

Topic	Feedback
Do you have any general feedback on resource eligibility and timelines?	
If the potential of repowering an existing facility applies to you, would you be interested in exploring this option further?	Yes.
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?	<p>IESO should not prescribe thresholds. Contract obligations and penalties for non-performance should be designed to ensure that proponents make the required investment to enable re-powered facilities to meet their 20-year contract obligations.</p> <p>Specifically, the minimum capacity increase is a non-starter that will significantly reduce the number of existing projects eligible to re-power for various reasons outside of a proponent’s control:</p> <ul style="list-style-type: none"> • Technical limitations of the facility may not allow for increases in size (e.g. turbine foundation or structural design) • Transmission/Interconnection limitations may not allow for an increase in nameplate capacity at the POI • Permits for the original site may not be able to be modified for larger or different technology required to achieve the increased capacity (e.g. hub heights, blade length, land area, noise)
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.	

LT2 RFP Design Considerations – System Congestion and Deliverability Approach

Topic	Feedback
<p>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?</p>	<p>Full transmission, load, and generation data as required to enable SCED modelling in ProMod or similar.</p> <p>The planning case should be developed for the anticipated COD year (at a minimum).</p> <p>Needed as early as possible.</p>
<p>Do you have any general suggestions for how to approach deliverability evaluation in the LT2 RFP?</p>	<p>No deliverability assessment should be included in the LT 2 RFP evaluation. Instead, we believe that if the IESO is concerned about near-term curtailment, they should set simple specific limits per region for connection to support spreading new generation development throughout the province. Sub-regions could also be used.</p> <p>Having deliverability evaluated as part of the proposal evaluation process introduced far too much risk, uncertainty for proponents; requiring proponents to commit substantial resources on a proposed project prior to getting an official determination of whether it will pass a deliverability test. Further, through E-LT and LT1, the IESO clearly did not have the resources or tools available to perform the required depth and detailed analysis required to provide clear and concise insight for proponents. In short, the concept of completing a deliverability assessment for long-term assets entering service in 3-5 years and expected to operate over 20-30 years is unobtainable from the start since the foresight required is practically impossible.</p>

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?	<p>As drafted, the combination of eligibility criteria and revenue model (specifically exposure to congestion risk) will drive higher prices and limited participation in the RFP.</p> <p>Any project would be lucky to get 2 of the following, let alone all 3:</p> <ul style="list-style-type: none"> • Municipal Support • Non-Prime Ag Land • Low Congestion Risk
Do you have any comments regarding what evaluation criteria can be utilized to evaluate project readiness, given tight timelines and reliability needs?	The proposal deposit and security amounts are not in line with market levels from other jurisdictions (SaskPower, Hydro Quebec).
Do you have input on the proposed mechanism for valuing Indigenous participation?	
Are there any other rated criteria that should be considered?	

Long Lead Time Resources

Topic	Feedback
Does the proposed approach to enabling long-lead time resources enable meaningful participation or sufficient certainty?	
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 IESO should look into further with regards to the revenue model?

No.

The "Enhanced PPA model" should be abandoned and replaced with tried-and-true indexed fixed price construct. Now is not the time to be introducing a new revenue model given the urgency of the need.

Failure to Meet IESO's Stated Objective

The IESO's intention to "encourage active and efficient energy market participation" is a worthwhile goal. However, Solar and Wind (which will undoubtedly form the bulk of proposals under LT2) will not be price responsive at market prices above \$-zero. Therefore, the only "active market participation" achieved will be binary (i.e. curtailment), which leads into the second point – lack of revenue certainty.

Hybrid projects could be more price-responsive, but without a capacity construct, there is not likely sufficient revenue within the energy procurement to justify the storage CAPEX.

Lack of Revenue Certainty

The revenue model does not provide revenue certainty as it introduces several key market risks for proponents that cannot be known at the time of proposal submission or effectively managed during operation. These risks and lack of ability to mitigate them are exacerbated by Market Renewal, the lack of historic LMP data, and the lack of any real hedging market in Ontario.

The lack of revenue certainty will be a serious impediment for obtaining project financing.

The Enhanced PPA's fundamental flaw is the inherent disconnect between the "Deemed" and "Actual" market revenue brought about through 3 key risks.

Key risks introduced:

1. Curtailment Risk

Currently seller bears 100% of this risk and the capacity factor assumed in the bid will have to be

discounted to account for both current and future curtailment. Projecting congestion and curtailment for 20 years in a market undergoing market renewal is impossible. Given that major drivers of curtailment (transmission planning and new generation) are highly affected by government direction, the IESO is much better positioned to manage curtailment risk.

While curtailment at \$-zero will reduce the ATC price and may promote greater GRP during high-curtailment months. Curtailment and generation when renewables are on the margin (i.e. \$0.00 LMP) will be biased towards hours of surplus wind/solar resource, meaning that actual market revenues will be below deemed revenues.

2. Simple Average (ATC) vs. Dispatch-Weighted LMP
Proponents must price in the risk of the technology adoption rate and its impact on realized price. As more Solar/Wind is added to the generation mix, captured prices for those technologies will diverge from the ATC price.

Using LMP in the deemed revenue calculation is helpful to reduce basis risk, but the disconnect between average (ATC) and realized LMP will reduce this benefit since basis is likely to occur during periods of surplus renewable generation, i.e. dispatch-weighted price LMP will be significantly below ATC.

3. Annualized Capacity Factor
For Solar & Wind, the "Energy Production Factor" used in the bid price will be considerably different than the realized capacity factor for a given month. This creates issues for both the Buyer and Seller. Buyer may over-procure energy since it does not receive monthly capacity factor information. For sellers, true-up payments (GRPs) are not aligned with months of actual need. GRP is simply based on the price level (not the generation volume). If price is lower than Monthly Rev Requirement, but capacity factor is much higher than annual

average, GRP is not needed, but it will be paid. If price is higher than MRR, but capacity factor is much lower (e.g. solar in the winter), the GRP is needed, but it will not be paid.

Additionally, the above-mentioned shape disconnects exacerbate price volatility risk, which will grow as more renewables are deployed:

- Price spikes are likely to occur during periods of low renewable production
- This will increase the ATC price, thereby decreasing the likelihood of a GRP being paid
- Since the spikes occur during low renewable production, there will be no offsetting market revenue for the seller

General Comments/Feedback

Given Ontario's forecasted supply needs, it is very important for IESO to administer a successful procurement that will best enable projects to be developed in a timely manner. Therefore, LT2 should not experiment with concepts that will unnecessarily place risks to project development and financing – which will ultimately be costly for Ontario's electricity customers.

Proponents must justify to management and ownership where to invest limited resources and capital. Given the availability of tried-and-true revenue models for renewable procurements in other Canadian jurisdictions (Manitoba Hydro, SaskPower, Hydro Quebec), why would proponents choose to allocate capital to a significantly riskier model proposed for LT2?

Further, due to supply chain issues, high input costs, and high interest rates, all electricity supply projects are being tasked, even under recently executed long-term contracts backed by a government entity. For example, the New York State Research and Development (NYSERDA) is presently facing procurement challenges and is working with contract counterparties and developers to better ensure that projects will be developed. By some reports, NYSERDA's Tier 1 procurement, as of December 2023, has experienced a contract attrition rate of 8,400 MW. This should serve as a clear example of why LT2 and subsequent RFPs and contracts should be effectively designed to best ensure successful project development.

See:

<https://www.linkedin.com/pulse/nyserda-tier-1-program-faces-84-gw-contract-attrition-rachelle-ufa5c%3FtrackingId=tHDa%252BDpcQLudPDyzRlpfQ%253D%253D/?trackingId=tHDa%2BDpcQLudPDyzRlpfQ%3D%3D>