

# Feedback Form

## Long-Term 2 (LT2) RFP – February 15, 2024

### Feedback Provided by:

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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. If you wish to provide confidential feedback, please mark “Confidential”.

Following the LT2 RFP February 1, 2024, 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 [engagement@ieso.ca](mailto:engagement@ieso.ca) by February 15, 2024.**

## Revenue Model

Topic	Feedback
<p>Do you have any additional comments regarding the revenue model, particularly with regards to the following: Deeming energy market revenues based on real-time locational marginal prices (LMP), as opposed to the IESO's recommendation of basing this on the day-ahead LMP. (Slides 19-21)</p> <ul style="list-style-type: none"><li>• The optionality of using either a simple average day-ahead price or weighted average LMP, with the latter including hours where the resource was scheduled day-ahead in a given month. (Slides 22-23)</li><li>• Including monthly production factors that on average equate to the annual production factor, in order to further account for seasonality. (Slides 24-26)</li></ul>	<p>See response in General Comments – formatting issues related to the form template.</p>

## DERs

Topic	Feedback
<p>Do you have any comments regarding eligibility requirements for DERs of other general comments?</p>	<p>EDF Renewables sees a growing role for DERs in Ontario and therefore we support frameworks and approaches that seek to maximize their participation, in particular the allowance of aggregation of DERs.</p>

## Capacity Resources

Topic	Feedback
<p>Do you have any comments regarding considerations for acquiring additional capacity resources, and utilizing a multi-stream approach (energy and capacity streams)?</p>	<p>EDF Renewables recommends that the IESO establish clear capacity targets (i.e., via APO) and establish a separate RFP process, since the 5 GW LT procurement schedule is an energy-based procurement. Furthermore, like the MT and LT program, we recommend a cadenced approach and encourage more discussions around timing, alignment relative to the energy-based LT procurement program i.e., capacity procurements following each LT procurement, or ensure there is appropriate capacity resources procured alongside each LT procurement 'cycle', considerations for including the BTM storage in a hybrid project against that capacity target, etc.</p> <p>It would also be helpful for the IESO to provide clarity on its level of interest in procuring hybrid resources in LT2 and whether it anticipates running a separate procurement focused on this type of resource. To maximize the potential for capacity resources from hybrid facilities, we recommend the IESO accelerate activities as part of the Enabling Resources engagement to establish an operating hybrid participation model as part of MRP implementation and seek to move towards a permanent participation model that proponents can rely on when preparing proposals for LT and MT (or other capacity resource) procurements.</p>

## LT2 Deliverability

Topic	Feedback
<p>Do you have any comments on early deliverability data and evaluation stage deliverability?</p>	<p>See response in General Comments – formatting issues related to the form template.</p>

## Repowering

Topic	Feedback
<p>Do you have any comments around repowering participation?</p>	<p>As stated in our January 15 comments, EDF Renewables sees a great deal of complexity in defining how an existing, contracted renewable resource can be defined as</p>

a 'repowered' facility and be eligible to bid into an RFP seeking 5 GW of additive, incremental energy. EDF Renewables would recommend the IESO continue to explore 'repowering' via the MT procurement program and leave it out of the LT program.

## Long Lead-Time Resources

Topic	Feedback
Do you have any comments on enabling long-lead time resources?	

## General Comments/Feedback

### Revenue Model

EDF Renewables would reiterate comments made in its prior submission. To the extent revenue models that do not match formulaic deemed revenues with actual revenues create additional risk for the participating project developer/generator. To the extent these risks are uncontrollable or 'unhedgeable', developers will either choose to not participate or increase bid prices to compensate for the additional risk. It will also make it very difficult to get lenders comfortable with the risks which will make it very challenging and/or expensive to get projects financed.

To the extent that the Enhanced PPA model can match contractual deemed revenues in the LT2 revenue model to actual revenues earned in the renewed market, EDF Renewables suggests using real-time prices and production as inputs to the deemed revenue calculation. This will allow the developer to still participate in the day-ahead market if it believes there to be financial reward to accepting the day-ahead vs. real-time production and price risks. However, as a default, the developer can take comfort that offering its generation in the real-time market will not create additional risks to the calculation of its Grid Reliability Payment.

Given that Market Renewal is expected to start after LT2 bid submission, renewable generators such as wind and solar will have uncertainty. Not only from the normal day-ahead quantities and real-time production variability due to wind/solar conditions but will also be accepting the day-ahead vs. real-time price risk. Market Renewal will be new and untested under real conditions. We therefore suggest allowing the developer to decide whether to accept this risk on its own terms rather than have its calculation of the Grid Reliability Payment require day-ahead market participation.

While acknowledging that MRP will allow for trading of virtual schedules at a zonal level and these virtual products could help manage day ahead and real time price risks, these tools are also untested and new to the IESO market. Besides the fact that zonal DA/RT prices may not fully represent the DA/RT values at the participant's LMP, the liquidity and costs to hedge is unknown. Thus is difficult for developers to rely on virtuals as a tool to remove DA/RT risk.

## **LT2 Deliverability**

EDFR understands a deliverability evaluation will not be performed before the Proposal Evaluation stage. Therefore, developers will have to be able to assess congestion risk independently as early as possible in the process.

EDFR encourages the IESO to share the following information with the industry by March 2024:

- Base case that the IESO will use to conduct the deliverability evaluation for projects as part of the Proposal Evaluation stage including the following:
  - What are the projects (ID, technology, MW and POI) that the IESO will be modeling in the deliverability study (excluding the potential LT2 projects)
  - What are the transmission constraints that the IESO will be modeling.
- Specific details of time and frequency of historic and future anticipated congestion per area or zone and Tx/Dx line
- Specific details of transmission built out over LT2 contract period (2029 – 2049)
- Map indicating conditions for connecting to specific zones or areas similar to what Hydro-Quebec has included in the last tender (see Annexe 4 (in French)  
<https://conversation.hydroquebec.com/33684/widgets/139602/documents/102180>)
- Details regarding methodology, inputs and outputs of deliverability evaluation to be performed during the Proposal Evaluation stage.
  - Would the result be the required transmission reinforcement (\$) to ensure a proposed generator is able to produce all its available energy all the time? And that amount would become a selection criteria?
  - While static power flow methods have historically been employed to assess deliverability under specific dispatch and load assumptions, whether those are realistic or not, and in only a handful of test hours, the more sophisticated 8760-hour economic dispatch approach to modeling is able to give a fuller picture of deliverability. (Assuming that voltage criteria are never violated, since the economic dispatch model uses a linearized version of power flow that makes this simplifying assumption.)
  - Note that in Alberta, the AESO uses the "Aurora" production cost model offered by Energy Exemplar to forecast congestion risk. This 8760-hour dispatch model affords insight into both curtailment frequency and total energy wasted. Pricing of electricity is calculated but is not of interest. Only curtailment risk is of interest, and for that purpose all renewable resources can be assumed to offer their energy at 0\$/MWh. Therefore, there is no concern about any need for commercially sensitive information in the making of assumptions. Other resources can be modeled with historical energy (hydro and net imports) and standardized heat rates (thermal power). The operation

of the system to N-0 and N-1 security must be reflected in the analysis. The major assumptions inherent in any analysis should be explained in any case. The cost assigned to the Project and the schedule for required transmission upgrades should both be estimated and provided to the Project Developer, if a Project is deemed less than 100% deliverable. Some sensitivity to Project nameplate MW could be helpful, in the case where the Project Developer can reduce (or even increase) the nameplate power (MW) of the proposed project. For example: if a 200 MW project is not fully deliverable but a 178 MW project would be, then that flexibility should be communicated to the Project Developer.

For further reference, other system operators in Canada have implemented ways to help developers with siting early in the development process. Examples are heatmaps or exploratory studies.

- 1) Heatmaps recently published by AESO indicating levels of possible congestion on existing lines, [Cluster Assessment Reporting » AESO](#)
- 2) Exploratory study process offered by e.g. Hydro-Quebec or SaskPower allowing developers to obtain early indication of interconnection suitability directly from the system operator for 5,000CAD per study.
  - a. [Generator Interconnection Exploratory Study Business Practice.pdf \(oati.com\)](#)
  - b. [Formulaire-Demande-etude-exploratoire-Nov-2023 \(hydroquebec.com\)](#)

### **Rated Criteria: Development Experience in Ontario**

EDF Renewables believes that community and indigenous acceptance is required for a successful Long-Term procurement; a view shared by the IESO and the Government of Ontario. Ontario has had a challenging history with renewables development and understanding the nuances of the Ontario market, is critical for building acceptance and long-term success. Further, the level of investment required to support the successful development of projects and fostering trusted and durable support from municipalities, project communities and indigenous groups will be materially higher for LT2 than say LT1, or E-LT1. We would strongly encourage the IESO to consider the following:

- Increase the rated criteria materiality for the evaluated bid price from 20% under LT1 to at least 40% in LT2+. This level of weight is common in other RFPs in other jurisdictions.
- Additionally include rated criteria points that point directly to level of experience of the company and its team developing, financing, constructing, and operating in Ontario. While the E-LT1/LT1 RFQ was well suited for evaluating proponents financially capable of participating in the procurements, it did not go far enough to distinguish or tiering proponents, who have demonstrated an ability of a project with capacity greater than 20 MW: securing and sustaining municipal support, held open houses, secured land and abutting land agreements, community benefit agreements and forged sustainable and profitable equity partnerships with Indigenous communities.

## **Indexation – More Discussions Required/Requested**

A lot of time for this first clean energy RFP has been spent on the revenue model, and, while we are aware that the contract is not yet drafted nor open for comment, EDF Renewables wanted to pre-set the discussion around Indexation. EDF Renewables suggests that the Proposal Price should include opportunities for price adjustments prior to COD. Given recent trends in materials and labor pricing due to supply chain challenges, interest rate volatility, and import tariffs on key pieces of equipment, EDF Renewables has been including opportunities for the parties to make price adjustments in all its North American offtake agreements. These adjustments can increase or decrease PPA prices based on which mechanism is employed (CapEx, Import Tariffs, etc.) to ensure that contracted projects are viable.