Feedback Form

Long-Term RFP – February 8, 2022

Feedback Provided by:

Name: Julien Wu

Title: Director – Regulatory Affairs

Organization: Evolugen by Brookfield Renewable

Email:

Date: Feb 18 2022

Following the February 8th public webinar on the Long-Term RFP, the Independent Electricity System Operator (IESO) is seeking feedback from participants on a variety of elements to help further inform the draft RFP and Contract, including: potential revenue streams, contracting mechanisms, term length and forward period, ability of resources to meet mandatory requirements and rated criteria, as well as the general approach to the RFQ including the proposed method to evaluate finances and experience.

The referenced presentation can be found on the Long-Term RFP webpage.

Please provide feedback by February 18, 2022 to engagement@ieso.ca.

Please use subject header: *Long-Term RFP*. To promote transparency, this feedback will be posted on the <u>Long-Term RFP webpage</u> unless otherwise requested by the sender.

The IESO will work to consider and incorporate comments as appropriate and post responses on the webpage.

Thank you for your contribution.



Revenue Streams

Торіс	Feedback
Please provide feedback on the revenue stream options that the IESO proposed.	Evolugen supports:
Are there additional revenue streams that proponents see that can be monetized?	Longer term (15-years and more) contracts for capacity revenue to optimize pricing for ratepayers: longer contracts allow developers to better amortize their capital investment, which translates into lower annualized costs.
	A contract for differences approach for energy market revenue is especially relevant for dispatchable resources, because it incentivizes such resources to closely follow market signals to maximize revenue. Fixed-price contracts are better suited for intermittent resources without dispatch capabilities.
	Ancillary services are an important revenue stream to support the development of storage and new dispatchable resources. Providing ancillary contracts will reduce revenue uncertainty, and in turn result in lower UCAP revenues required for developers to proceed with new builds.
	Environmental attributes could either be included or excluded from contracts. If included, a price collar approach would be the preferred mechanism to share price & regulatory risks between the IESO and project developers.

Other jurisdictions have procured new-build resources under long-term agreements through a variety of contract types (power purchase agreements, capacity only contracts, capacity contracts with energy components, etc.). What lessons do stakeholders have from their experience with these other contracting mechanisms?

Generally, the bundling of revenue streams in longer-term contracts incentivize private market participation, protect ISOs against low competition, and ensures low-cost options for ratepayers. Jurisdictions that procure shorter-term, capacity-only contracts (via RFPs or auctions) often fail to build flexible, cost-effective, and emissionsfree asset types that require longer development time and higher upfront investment. Ultimately, technology types that seem attractive in one revenue stream might need costly support in other areas. For example, some intermittent assets can seem favorable in their lower capacity prices, but they also require ISOs to procure and pay for additional grid flexibility, storage, and ancillary services to make up for their shortcomings. On the other hand, well-rounded asset types that can deliver capacity, energy, ancillary, and are emissions-free generally require longer-term contracts to be cost-effective. In other words, ISOs should take a holistic and comprehensive approach when evaluating their procurement practices, to avoid narrowly focusing on a single cost variable while ignoring net system costs. In sum, longer-term, bundled contracts protect both ISOs and IPPs against uncertainty: this incentivizes new builds that provide a wide range of system needs and are more costeffective over time.

Topic Feedba	ack
--------------	-----

What opportunities do stakeholders see in the future to monetize environmental attributes?

The emerging environmental attributes market provides a great opportunity for the IESO, the IPPs, and the customers alike. We are currently observing significant demand from Canadian customers for environmental attributes even in this early stage. The creation of a Clean Energy Registry is a good first step to enable such attributes' monetization and to further promote renewable development in Ontario. However, a "blended" approach—where all attributes produced by emissions-free electricity, in particular nuclear, are undifferentiated and fungible—would greatly reduce their attractiveness to both investors and customers. Customers should be able to choose and purchase specific attributes produced by specific resources: this allows market forces to set prices for different attributes. The IESO should also increase competition by decentralizing how environmental attributes would be monetized: individual IPPs should be allowed to monetize their own attributes to maximize revenue as they see fit; they could also share such profits with the IESO under the aforementioned "collared" revenue option.

Term Length and Forward Period

Торіс	Feedback
Please provide feedback on the options for additional term-length that the IESO proposed.	We welcome the Early Commercial Operation term length extension option for projects capable of operation in 2025. Nevertheless, we urge the IESO to consider longer than 10-year contract lengths to enable projects that require longer development time and high upfront investment, which in turn result in lower overall costs for ratepayers.
Do stakeholders feel that the options presented provide proponents with some certainty from an investment and/or financing perspective?	To reiterate, longer contract terms allow IPPs to optimize their financing and offer lower prices in RFPs. This "revenue certainty" would also invite more IPP participation, thereby increasing competition and improving procurement outcome. In contrast, shorter contract terms would simply result in IPPs adjusting their financing and offering higher prices for the same project. Or worse, IPPs would forego participation and capital deployment in Ontario in favor of longer-term RFPs in other provinces—many of which are also facing immediate capacity and energy shortfalls. Put another way: for the same project, longer-term contracts would help secure capacity and other grid benefits at a lower cost for Ontario ratepayers. In addition to capacity contracts: options to secure other revenue streams are also
	In addition to capacity contracts: options to secure other revenue streams are also important to reduce revenue uncertainty, optimize financing, and will ultimately lower costs for ratepayers.

Торіс	Feedback
Please provide feedback on the options for additional term-length that the IESO proposed.	We welcome the Early Commercial Operation term length extension option for projects capable of operation in 2025. Nevertheless, we urge the IESO to consider longer than 10-year contract lengths to enable projects that require longer development time and high upfront investment, which in turn result in lower overall costs for ratepayers.
What are some options for additional term that the IESO should consider?	For reference, Hydro-Quebec's ongoing 20+years RFPs require developers to "certify" that their projects' useful life would match their contract life (i.e., a wind farm given a 20-year contract would need to be certified to be operatable for 20 years). This could be a way for the IESO to shift its operational risks to developers in exchange for longer contracts. To note: this practice would only be useful if longer contracts were rewarded (e.g., 20-year+); for shorter contracts, there is little need for the developers to carry this operational risk as technology is already mature enough to guarantee operability.
	The IESO could also consider a separate RFP targeting non-emitting resources that require longer-term contracts. For example, hydro and pumped-storage hydro are proven technologies that can provide significant benefits to the grid at low cost (e.g., dispatchable energy, ancillary services, good ratio of UCAP to nameplate capacity), but require longer-term contracts to be economical. The IESO could thus secure a portion of its longer-term needs via competitive market mechanisms as opposed to bilateral negotiations.

Торіс	Feedback
Please provide feedback on the options for additional term-length that the IESO proposed.	We welcome the Early Commercial Operation term length extension option for projects capable of operation in 2025. Nevertheless, we urge the IESO to consider longer than 10-year contract lengths to enable projects that require longer development time and high upfront investment, which in turn result in lower overall costs for ratepayers.
Are stakeholders aware of any resources (new-build and/or expansions to existing resources) that able to come into service as early as 2025? What challenges would resources face with being fully	Evolugen sees opportunities to upgrade existing resources, develop hybrid solutions and deploy battery storage in the short term.
operational by 2025? Please provide any additional information that may help inform the IESO of potential projects and their development timelines, in order to help guide discussions around LT I RFP forward periods.	However, a 2025 COD date for new projects would require revenues to be immediately secured via contracts <u>before</u> we can seek investment approval, advance financing, launch project construction and begin permitting etc
	Delays in awarding contracts (in both PPAs and RFPs) and revenue uncertainty will determine whether a 2025 COD date for new projects would be possible or not.

Mandatory Requirements and Rated Criteria

Topic	Feedback
Please provide feedback on the mandatory requirements the IESO proposed.	The IESO should begin coordinating with other Ministries and departments involved in approving the regulatory/permitting requirements outlined in its Mandatory Requirements, and develop a streamlined regulatory/permitting approval process to support developers in meeting its tight RFP timeline.

Торіс	Feedback
The IESO presented a number of technical characteristics that are desirable from a system value perspective, that may form rated criteria in LT I RFP. Please provide feedback on the characteristics proposed and their applicability as rated criteria.	Instead of a Desirable Technical Characteristic in the ability to "deliver 8 or more consecutive hours of energy," we propose to replace it with the ability to "deliver 2 blocks of 4 or more consecutive hours of energy" to better match daily system peaks.
	We firmly support the Financial Capability, Corporate Experience, and Employee Experience requirements outlined by the IESO to avoid the past experience of RFP winners being unable to deliver projects.

RFQ

Торіс	Feedback
Do stakeholders feel that the high level approach proposed for the RFQ satisfies the IESO's goal of ensuring that interested parties have the capability to undertake project development for the LT I RFP, while also enabling competition?	Evolugen generally agrees with the IESO approach for the RFQ.

General Comments/Feedback