



FEBRUARY 8, 2022

Long-Term RFP Engagement

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Agenda

- Initial LT I RFP and Contract Design Considerations for Discussion
- LT I Request for Qualifications (RFQ) Overview
- Stakeholder Feedback – Key Themes
- Next Steps and Stakeholder Feedback

Purpose

- Present initial design elements for the LT I RFP and Contract and proposed RFQ requirements
- Receive stakeholder feedback on the proposed RFQ requirements and initial design elements, including alternative approaches the IESO should consider
- Provide responses to stakeholder feedback from the December 15, 2021 Resource Adequacy engagement



Initial LT I RFP and Contract Design Considerations for Discussion

Context: Ministerial Directive

On January 27, 2022 the IESO received a directive from the Minister of Energy instructing the IESO to:

- Design the LT RFP to procure at least 1,000 MW of capacity, determined primarily on a UCAP basis
- Issue an RFQ in advance of the LT RFP, on or before June 30, 2022, including stakeholdering of a draft RFQ on or before March 31, 2022
- Provide a report containing the draft LT RFP, a summary of stakeholder feedback and IESO responses, and the results of the RFQ by November 30, 2022

LT I RFP Overview

- Building on the needs identified in the Annual Planning Outlook (APO), the 2021 Annual Acquisition Report (AAR) outlined several actions to acquire capacity from existing assets through the medium-term RFP and new capacity through a long-term procurement mechanism
- The LT I RFP is intended to help address the system reliability needs that emerge as early as 2025 by acquiring capacity from incremental new-build supply and storage resources; expansions to existing resources/assets are also under consideration
- To address both global system needs and more localized transmission security needs, the LT RFP I will seek to acquire capacity in the transmission zones east of FETT and the West

LT I RFP Overview (2)

- At its core, the LT I RFP is acquiring the products and services that we need to meet our reliability obligations, including resource adequacy and operability needs
- This approach lays the foundation for a technology agnostic procurement that is open to resources able to satisfy all mandatory requirements
- It is recognized that not all resource types may be able to meet the identified need and mandatory requirements, and as such the IESO will continue to engage with stakeholders to identify participation avenues within the Resource Adequacy Framework, including the evolving Capacity Auction, subsequent Medium-Term RFPs and programs

LT I RFP Overview (3)

- Stakeholder feedback will be crucial in helping to design the LT I RFP, as well as in informing our report back to the Minister
- As part of the LT RFP engagement process, the IESO will present a number of options for design considerations to solicit that feedback and inform the design of the RFP and Contract

LT RFP Key Considerations

The IESO will work with stakeholders on the design of the LT RFP based on the following proposed key considerations

At least **1,000 MW** of new Capacity with a minimum of **4+ hours of energy duration**

In-service as early as 2025 with preference to locations in the **West and East of FETT**

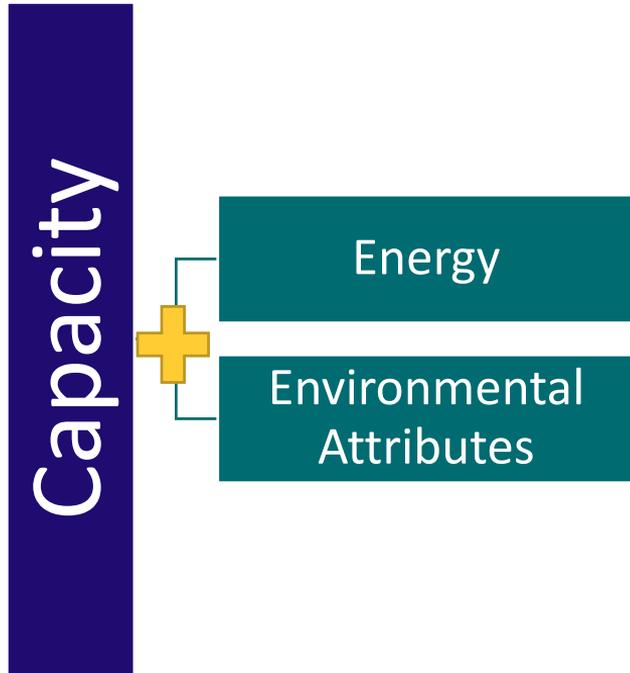
Minimum Term Length of **10 years** + options for longer Commitments

Capacity (UCAP) Payment and revenue options for Energy and Environmental Attributes

Product and System Needs

- The IESO's Capacity needs emerge in 2025 and grow over the next few years, while energy needs also emerge in the mid-2020s and grow beginning in 2029
- In order to meet these needs, the LT I RFP is expected to procure a capacity product which will be based on a resource's seasonal qualified capacity (UCAP)
- Beyond the capacity product, the IESO will work with stakeholders to ensure additional system needs are met (e.g., energy needs, operability needs, locational needs) while identifying additional revenue opportunities that support investment and provide ratepayer value

Revenue Streams



- The IESO recognizes stakeholder concerns that energy revenues in a post-MRP energy market are difficult to forecast, as are revenues from monetizing environmental attributes
- The IESO is open to working with stakeholders to ensure that the LT I Contract could provide additional revenue opportunities (while ensuring that resources have the right energy market incentives) in order to provide some certainty to proponents and ensure that the LT I RFP incentivizes sufficient new investment in Ontario

Revenue Streams (2)

- In order for the LT I RFP to meet emerging system needs and align with the IESO's Resource Adequacy framework, it is anticipated that:
 - Resources will be paid for qualified capacity on a seasonal basis; and
 - Resources will be incented to operate effectively in the energy market
- However, recognizing stakeholder concerns around the inability to forecast post-MRP energy prices, the IESO will work with stakeholders to explore some options to provide additional certainty to help support investment

Revenue Streams (3)

Options that the IESO is seeking stakeholder feedback on, include:

An energy market “collar” to mitigate market risk. The “collar” could be set at a range that provides suppliers some certainty, while protecting ratepayers

A contract for differences approach or price thresholds in the contract, to provide similar certainty and ratepayer protection

Price adders or additional revenue opportunities for services beyond capacity + energy

Revenue Streams (4)

- The IESO is also considering options for providing certainty around the value of **Environmental Attributes (EAs)**:
 - If suppliers are enabled to own their EAs, the IESO will seek to better understand opportunities to monetize those EAs in the future
 - This will include engaging with stakeholders as the IESO works to develop the recently announced Ontario Clean Energy Registry

Revenue Streams (5)

- The IESO has also heard from some stakeholders that opportunities to work with companies currently seeking to meet ESG goals may provide some revenue opportunities

The IESO welcomes feedback from stakeholders on both existing and future opportunities to monetize EAs in a manner that provides certainty and maximizes opportunities for this procurement

Term Length

- The Resource Adequacy Framework and 2021 AAR signaled a term length of at least seven years to address multiple reliability needs
- The IESO recognizes the concerns expressed by stakeholders that it may be challenging to attract investment with a term length as short as seven years in a competitive global marketplace, even with the IESO's planned acquisition cadence

In light of stakeholder feedback, the IESO proposes a minimum **10 year** baseline and is open to working with stakeholders on options for providing longer term lengths

Term Length – Options for Feedback

Early Commercial Operation

Resources able to reach commercial operation before the common commencement date of May 1, 2027 could attain additional term length. For example, a resource able to reach commercial operation in 2025 could have an additional ~2 years of contract term

Additional term for high-value resources

Resources that provide high system value, in critical locations could be offered additional term length. Conceptually this could include resources that meet all rated criteria in critical locations.

Bidding in term length

The IESO is open to considering whether resources should be given the opportunity to bid in an alternative term length

Forward Period & Commercial Operation Date

- Consistent with the 2021 APO and AAR, the LT I RFP is anticipated to seek resources able to meet system needs emerging in 2025
 - This equates to a forward period of ~2.5 to ~4.5 years for the LT I RFP
 - The LT I Contract would have term start and end dates that align with the dates presented in the IESO's [bridging proposal](#) (May 1 term start & April 30 term end), in order to allow resources to effectively transition between acquisition mechanisms
- The IESO will aim to facilitate and/or incentivize early in-service dates for resources that can reach commercial operation as early as 2025

The IESO is interested to hear what resources could be fully operational by 2025?

LT I RFP Mandatory Requirements and Rated Criteria

- In order to ensure that the LT I RFP is able to meet core system needs, the RFP will lay out a set of minimum operational requirements detailed in a set of **mandatory requirements**
- Those resources that satisfy the mandatory requirements will be further evaluated based on **rated criteria**
- Similar to the MT I RFP, rated criteria will seek to reflect certain desirable resource attributes or technical characteristics that contribute to operability or provide additional system value

Proposed Mandatory Requirements

Foundational Capacity Product with the following requirements proposed:

Minimum 4
consecutive
hours of
energy

Minimum of 4 hours of continuous energy duration, based on system needs.

Fully
dispatchable
Market
Participant

Dispatchable generators, hybrids or storage resources directly connected to the transmission or distribution system. Must become a Market Participant prior to term commencement.

All
regulatory/
permitting
requirements
satisfied

Resources must have all permits in place, and regulatory requirements met at commercial operation date.

Desirable Technical Characteristics

- In addition to mandatory requirements, it is anticipated that desirable technical characteristics will be valued through rated criteria points in the RFP
- Such characteristics will likely include:
 - Ability to deliver 8 or more consecutive hours of energy;
 - Located in areas of greatest system need (e.g., southwest, east of Toronto);
 - Resource able to ramp up or down quickly;
 - Quick start resources;
 - Resources with a larger operating range; and
 - Technical capability to provide one or more ancillary services.

Qualifying Experience

- The IESO anticipates that the LT I RFP will be crucial in helping address the system reliability needs that start to emerge as early as 2025, by acquiring capacity primarily from incremental new supply and storage resources
- Given the timing of those needs, the IESO wants to ensure that the products/services procured are able to deliver where and when they are needed
- In addition to the initial LT I RFP and Contract design considerations presented previously, the IESO has been directed to launch an RFQ to ensure that the interested parties have sufficient financial capacity and experience to participate in the LT I RFP, in order to meet emerging needs



LT I Request for Qualifications (RFQ) Overview

LT I RFQ Overview

- The IESO will be posting a draft version of the Long-Term request for Qualifications (LT I RFQ) no later than February 28, 2022
- The objective of the RFQ is to ensure that the interested parties have the capability to undertake project development for the LT I RFP
- The LT I RFQ will seek to evaluate applicants both on corporate experience and employee experience

Financial Capability

- Given emerging system needs, the IESO expects proponents to have sufficient financial capacity to plan, develop, construct and operate their proposed resources
- To show financial capability, the IESO expects to rely on completion and performance security, via a letter of credit, which will be required either upon qualification and/or to accompany a proposal at the RFP stage
- The level of security is expected to be set at a value that reflects the nature of the LT I RFP (i.e., **new** capacity) and as such may be higher than in previous IESO procurements that targeted existing resources

Corporate Experience Requirements

- It is expected that the LT I RFQ will seek to qualify applicants who can demonstrate North American corporate or entity level generation or storage ownership and operating experience
- This requirement will be satisfied by applicants providing evidence of environmental and energy or electricity-sector permits or licenses, interconnection agreements and market participation or registration documentation from an owned and operated facility, as well as evidence of the facility's achievement of commercial operation

Employee Experience

- Recognizing the unique development environment in Ontario, it is anticipated that the LT I RFQ will seek to ensure that applicant employees have the collective experience to successfully deliver and operate a project in the Ontario market
- Will entail evidencing experience in project planning, permitting, development, construction, and operation, as well as non-recourse project financing
 - Experience engaging with Indigenous communities and/or rights holders in Canada will also be required
- In addition, the RFQ will seek to qualify applicants that have employees with experience in offering, scheduling, dispatching and operating in an ISO/RTO



Stakeholder Feedback – Key Themes

The following slides provide an overview of key themes from the written feedback received in response to the December engagement session. Formal IESO responses will be posted later in February 2022.

Overview

Following the December 15, 2021 Long Term RFP Resource Adequacy engagement, the IESO received feedback from stakeholders on the following themes:

- Term Length
- Eligibility of hybrid (generation and storage) resources
- Development timelines (with regards to forward periods, connection assessments, and regulatory requirements)
- LDC Eligibility and Outreach

Feedback Theme – Term Length

Stakeholder Feedback

- The 7-10 year term length for the Long-Term RFP proposed by the IESO is insufficient to attract investments in new-build resources or to support significant expansions
- A term length of greater than 10 years is required to recover capital costs associated with such investments

Feedback Theme – Term Length

IESO Response

- The 7-10 year term length initially put forward aligns with the IESO's Resource Adequacy Framework, which values the flexibility that shorter term lengths provide. The IESO has heard varied feedback on term length. Some stakeholders have stated that they value shorter term lengths as a means to enable newer technologies, while others cited the need for longer term lengths to account for the capital costs associated with new build resources and significant expansions.
- The IESO proposes to set a baseline of 10 years and will continue to work with stakeholders on opportunities where additional term length can be attained

Feedback Theme – Hybrid Eligibility

Stakeholder Feedback

- Hybrid resources should be able to participate in the LT I RFP
- The IESO should ensure close collaboration between the Hybrid Integration Project, Market Renewal Program, and the LT I RFP to ensure any interdependencies are accounted for

Feedback Theme – Hybrid Eligibility

IESO Response

- Overall eligibility in the LT I RFP will be determined by a resource's ability to meet the IESO's system needs, as reflected in the RFP's mandatory requirements and contractual obligations
- The IESO expects that hybrid resources would be able to meet these requirements, and is working towards facilitating their participation in IESO-administered markets (IAMs) via two distinct participation models through the Hybrid Integration Project (HIP)

Feedback Theme – LT RFP Timelines/Forward Period

Stakeholder Feedback

- A 2027 in-service date does not align with the development of new hydroelectric resources that require longer forward periods in order to satisfy siting and permitting requirements
- Other feedback received centered on support of a staggered forward period that could see more flexible resources come online in advance of May 1, 2027

Feedback Theme – LT RFP Timelines/Forward Period

IESO Response

- The IESO recognizes that an in-service date as early as 2026/2027 is unlikely to work for all resource types/technologies, however, it is critical to bring resources online in time to meet the province's emerging system needs
- The IESO looks forward to further stakeholder discussion on the applicability of early in-service dates in the LT I RFP

Feedback Theme – LDC Eligibility

Stakeholder Feedback

- There is likely to be significant interest from proponents seeking to connect projects to the distribution system or to make devices installed behind-the-meter available
- With this in mind, LDCs should be eligible to participate in the procurement

Feedback Theme – LDC Eligibility

IESO Response

- Overall eligibility in the LT I RFP will be determined by a resource's ability to meet the IESO's system needs, as reflected in the RFP's mandatory requirements

Feedback Theme – LDC Outreach

Stakeholder Feedback

- A stakeholder emphasized the importance of engaging early with LDCs to understand potential connection considerations for the procurement

Feedback Theme – LDC Outreach

IESO Response

- The IESO has been working to develop a high level process for assessing deliverability and connection for resources participating in the LT I RFP
- The IESO will be reaching out to LDCs in the coming weeks to gather their feedback on the process and will be bringing proposals to stakeholders in subsequent engagement sessions



Next Steps and Stakeholder Feedback

Next Steps Stakeholder Feedback

- Per the directive from the Minister of Energy, the IESO intends to issue a draft RFQ by February 28, 2022, and complete engagement on it prior to March 31, 2022
 - A final RFQ will be issued before June 30, 2022
- The IESO will continue to engage on topics both noted in this presentation, and new items (e.g., deliverability and connection availability, community engagement) to help further inform the draft RFP and Contract
- Stakeholder feedback on this presentation is being requested via the feedback form provided by February 15, 2022 to engagement@ieso.ca

Thank You

ieso.ca

1.888.448.7777

customer.relations@ieso.ca

engagement@ieso.ca



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