

Feedback Form

Long-Term RFP – February 8, 2022

Feedback Provided by:

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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 [Long-Term RFP webpage](#) 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

Topic	Feedback
<p data-bbox="181 226 620 331">Please provide feedback on the revenue stream options that the IESO proposed.</p> <p data-bbox="181 369 620 474">Are there additional revenue streams that proponents see that can be monetized?</p>	<p data-bbox="734 226 1536 420">Energy Storage Canada directionally supports the IESO's proposal that would allow for multiple revenue streams; however, there is significant uncertainty for energy storage resources participating in the future Ontario electricity market.</p> <p data-bbox="734 470 1536 1335">Under the Market Renewal Program (MRP), the IESO is proposing to implement a vast overhaul of the IESO-Administered Markets. Many of the changes will directly impact the cost and revenue potential for energy storage resources. The rule changes have not been delineated and will not be implemented until the mid-2020s. For example, the adoption of a Locational Marginal Price (LMP) will impact the expectation of future charging costs and revenues for injected energy. Details on how prices will be determined is required to forecast future LMPs for storage. Further, the IESO is proposing a Market Power Mitigation (MPM) Framework that will restrict the revenue upside for storage during constrained hours. Clear rules and a description of the framework's application are required for the MPM to forecast future revenue and potential claw backs by the IESO. Finally, the unit commitment process and day-ahead market design must appropriately incorporate energy storage resources, including the potential capability to cycle twice in the day. The IESO recognizes the current issues and are working to address the problem; but ESC is not certain it will be addressed prior to projects submitting applications to the Long-Term RFP</p> <p data-bbox="734 1381 1536 1806">The full integration of energy storage resources into the IESO-Administered Market is not expected until the late 2020s as per the IESO's long-term vision project for energy storage resources, and as recently described by the Enabling Resources workplan produced December 2021. Many aspects of the long-term vision project are only initial design considerations (e.g., process for tracking and integrating State of Charge). Without specific details on the long-term vision energy storage participation model, it is incredibly challenging for energy storage resources to determine costs and benefits for a proposed project.</p>

Topic	Feedback
	<p data-bbox="735 170 1523 520">A Long-Term RFP contract for just UCAP capacity (i.e., a fixed capacity payment) requires energy storage resources to take on a lot of merchant risks, which increases cost of capital and cost to customers. Some form of a contract for differences or a net-revenue requirement contract may be better for project financing and more cost effective for Ontario electricity customers. Energy Storage Canada believes there are many incentive options to encourage efficient wholesale market participation under a contract for differences framework.</p> <p data-bbox="735 569 1523 877">IESO must ensure proponents seek opportunities for value stacking, but do so in a way that does not compromise their ability to meet the performance and availability requirements of the IESO RFP. This would include the ability to offer ancillary services to the IESO such as critical inertia and voltage support. The IESO should consider how proponents can monetize those revenue streams within the LT RFP contract.</p>
<p data-bbox="190 957 620 1339">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?</p>	<p data-bbox="735 999 1523 1188">Past RFPs have supported repurposing existing infrastructure, while making it more difficult for innovative new-build projects to compete (contract length, change of control provisions, etc.). ESC encourages the IESO to ensure the Long-Term RFP incents new-build infrastructure.</p>

Topic	Feedback
<p>What opportunities do stakeholders see in the future to monetize environmental attributes?</p>	<p>The IESO is launching a Clean Energy Credits (CEC) consultation that will explore options to monetize environmental attributes. At this time, there are many uncertainties related to how a CEC framework will be established and what opportunities such a framework will provide for energy storage resources.</p> <p>The clean energy credit (CEC) registry under development by the IESO should track the hour that the underlying generation for the credit occurred. This will allow final purchasers of CECs to make a firm link between the production of the clean energy and their consumption. This will highlight the value of clean generation that occurs at peak times, as opposed to shoulder seasons when there is often surplus clean energy present. Energy storage resources could potentially be used to time-shift CECs from low value to high value times.</p>

Term Length and Forward Period

Topic	Feedback
<p>Please provide feedback on the options for additional term-length that the IESO proposed.</p>	<p>Energy Storage Canada supports a longer contract term length. Longer contract term lengths allow for fixed costs for the project to be recovered over a longer time period (e.g., simplistically, \$10M recovered over 10 years is \$1 million per year, while over 20 years is \$500,000 per year). Longer contract terms also reduce financing costs since the contract covers the operating life of the assets requiring no estimate of terminal value of the asset post-contract term.</p> <p>Lowering the cost of a contract over a longer term can also function as an effective price hedge for future capacity costs in Ontario. The price discovery of capacity costs for long-term contracts in Ontario can be used to determine if shorter contract terms should be explored or not.</p>
<p>Do stakeholders feel that the options presented provide proponents with some certainty from an investment and/or financing perspective?</p>	<p>Energy Storage Canada believes a revenue certainty contract over a long-term (e.g., 20 years) is preferable to access low-cost financing for storage projects.</p>
<p>What are some options for additional term that the IESO should consider?</p>	<p>Energy Storage Canada believes a contract term for the operating life of the asset is appropriate. This should match equipment vendor warranties, which can range from a minimum of 10 years to up to 20 years. It is advisable that the IESO allow for longer durations. Projects offering a longer-term contract should not be scored negatively for doing so, which has been done in previous RFPs.</p>

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<p>Are stakeholders aware of any resources (new-build and/or expansions to existing resources) that able to come into service as early as 2025?</p> <p>What challenges would resources face with being fully operational by 2025?</p> <p>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.</p>	<p>Energy Storage Canada understands from its members that many projects could come into service as early as 2025 if an appropriate revenue sufficiency contract is offered through the Long-Term RFP. Projects that come into service faster should be rewarded for doing so.</p>

Mandatory Requirements and Rated Criteria

Topic	Feedback
<p>Please provide feedback on the mandatory requirements the IESO proposed.</p>	<p>It is not clear to Energy Storage Canada what permitting and regulatory requirements are needed for mandatory requirements. On slide 21 of the February 8th presentation, the IESO presented Mandatory Requirements for participation; but then discusses requiring permits and regulatory requirements by commercial operation date.</p> <p>It will be helpful for IESO to provide more information on other potential mandatory requirements and scoring criteria related to Indigenous, Public, and Municipal consultation and participation as soon as possible to provide proponents with enough time to conduct these processes in a reasonable timeframe. To the extent that these requirements will be mandatory, it would be good to have this reflected in the proponent experience requirements in the RFQ.</p> <p>Energy Storage Canada recommends that the IESO seek a demonstration of prudent due diligence on required approvals as part of mandatory requirements. Final permits and approvals would be sought after contract award as part of project development and construction obligations.</p>

Topic	Feedback
<p>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.</p> <p>Please provide feedback on the characteristics proposed and their applicability as rated criteria.</p>	<p>The IESO has stated areas of greatest system need; however, the exact areas and locations of points of interconnection that would be desirable are not clear. Energy Storage Canada recommends that the IESO prepare a map showing connection locations that would be desirable.</p> <p>Energy Storage Canada requests the IESO share the analysis for why a minimum of 4+ hours of energy duration may be a requirement within LT RFP 1.</p>

RFQ

Topic	Feedback
<p>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?</p>	<p>It is important to ensure proponents have sufficient experience developing and operating facilities of similar scope and scale, however the criteria should not be technology specific. For instance, there are very few Ontario based proponents with experience developing and operating large scale energy storage, however there are many Ontario based proponents with applicable practice in large wind, solar, hydroelectric, and gas facility development and operation that would be directly relevant.</p> <p>The IESO should include thorough Indigenous engagement and community stakeholder engagement requirements for proponents, to ensure adequate community participation in energy projects. Further, the IESO should ensure proponents have adequate site access for projects.</p> <p>The IESO should ensure that adequate proposal security and tangible net worth evidence are required to ensure proponents build in all appropriate costs, to ensure the success of the RFP.</p>

General Comments/Feedback

Regulatory Risk: There are ongoing consultations and potential future changes to Ontario's electricity regulatory framework driven by the Ontario Energy Board (OEB) with respect to energy storage resources. The OEB has primarily referenced the Framework for Energy Innovation (FEI) consultation as the principal forum for addressing barriers within the 2018 energy storage report as per the Minister's direction in the November 10th, 2021, letter. The recommendations from the FEI working group are not expected until late summer 2022 and

the actions taken by the OEB executive based on the recommendations are unknown. These timelines mean there is potential uncertainty that must be addressed to provide clarity for energy storage participants.

Raw materials and commodity price indexing: ESC requests IESO consider a capital cost adjustment mechanism in the RFP to account for fluctuations in applicable raw materials and commodity prices between the RFP submission and in-service period. Doing so would enable energy storage proponents to present the most competitive pricing for ratepayers and reduce contingency associated with price volatility.

Concluding Statement: Energy Storage Canada believes the Long-Term RFP contract must provide adequate revenue sufficiency to attract investment and achieve a low cost to customers. With the current investigation of a new gas-fired generation moratorium and the potential fast growing capacity need in Ontario under a pathway to net-zero outlook, Energy Storage Canada believes that energy storage resources are among the few resources able to meet Ontario's future system needs.