

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="181 226 609 331">Please provide feedback on the revenue stream options that the IESO proposed.</p> <p data-bbox="181 369 623 474">Are there additional revenue streams that proponents see that can be monetized?</p>	<p data-bbox="670 226 1511 659">Although the primary purpose of this procurement is to secure incremental capacity, it is important not to overlook other potential services that could be provided by the facility. These contracts should contemplate all of the services the facility is able to provide. Given the high level of uncertainty associated with the effect of the Market Renewal Program on revenue streams, proponents are not well positioned to forecast potential future merchant revenues. If the procurement is structured as 'capacity only' proponents will be forced to highly discount other potential revenue streams and bid most of the cost of the facility into the capacity price.</p> <p data-bbox="670 726 1511 1352">Regarding contract structure, a contract for differences (CFD) would provide the highest level of certainty for proponents, which in turn will reduce the price they bid. In such a contract, the facility could be entitled to its Net Revenue Requirement, subject to availability and performance requirements for services such as capacity, energy, and operating reserve. In the case of energy storage facilities, the 'energy shifting' performance of the facility could be measured through a similar mechanism to the contract used in IESO's Phase II Energy Storage Procurement. Incentives along with a revenue sharing mechanism could be implemented to further incent facilities to perform to the greatest extent possible during the periods needed by the system. Another benefit of a contract for differences is it could potentially allow for the facility to be deployed for different use cases, providing other products and services, if grid needs change and the parties agree.</p> <p data-bbox="670 1419 1511 1650">With a "standard" CFD as there is no revenue upside for the supplier and consequently no financial incentive to produce when the system needs it there may need to be other conditions imposed. This means the IESO may need to use operational constraints such as must offer provisions to deliver capacity over the peak.</p> <p data-bbox="670 1696 1511 1843">With a collar structure there is some risk but also opportunity for incentive both of which are capped. The collar does not have to be symmetrical and the upside and downside risk should be set to a level that balances manageable risk for the supplier and</p>

Topic	Feedback
	<p>ratepayer. The IESO defines and labels the collar as an “energy market collar”, however, this revenue stream should be designed to be a revenue collar in order to capture all revenues not solely energy.</p> <p>For all contract structures it would be helpful if the IESO would outline the approach to use UCAP in the evaluation of the proposals. Specifically how will the capacity procured under this LT RFP differ from the capacity procured under the original CES contract?</p> <p>Regarding uprates would the IESO define all valid uprates and confirm they are eligible under the LT RFP.</p> <p>Lastly, are existing, uncontracted MW’s eligible under the LT RFP</p>
<p>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>	

Topic	Feedback
<p>What opportunities do stakeholders see in the future to monetize environmental attributes ?</p>	<p>The extent to which Environmental Attributes (EAs) can be monetized in the future really depends on what the market for EAs (clean energy credits, carbon offsets, etc.) looks like in the future. Looking ahead, with increasing decarbonisation goals in the broader economy and corporate ESG targets, environmental products will continue to have some value. That value will depend on the volume of clean products that exist in the market, the extent to which attributes from currently contracted resources become available to the market, the demand for those EA products, the types of EA products the market values, the prevailing carbon accounting standards, the carbon price outlook, and the extent to which we have a voluntary or compliance market. Similar to the uncertainty for forecasting energy revenues (given MRP) there is uncertainty around the extent to which the market can monetize EAs, therefore it will be difficult for market participants to include this in the LT RFP submission scheduled for issue within the next year.</p> <p>There is also a relationship between the Clean Energy Credit (CEC) registry under development by the IESO and the timing of production when energy revenues are forecast. The registry should track the hour that the underlying generation for the credit occurred. This will allow ultimate purchasers of CECs to make a firm link between 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>Please explain how the IESO would evaluate a resource that would prefer a 10 year term versus a resource that would prefer a 20 year term, with both having the same price. Will these two resources be normalized in the evaluation and how will the successful candidate be determined?</p>

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	<p>Participants will need to be evaluated on a consistent basis on all of the criteria (mandatory and desirable) and the evaluation should be open and transparent.</p> <p>A ten year contract term will be a challenge for most investors, given the mismatch with asset life and the limited track record of capacity markets in Ontario.</p> <p>The IESO should consider supporting longer terms or options to extend the term for high value resources such as peaking hydro.</p> <p>Would the IESO provide details on how the MW accounting would change from the original contract end date if the LT RFP contract end date precedes the original?</p>
<p>Do stakeholders feel that the options presented provide proponents with some certainty from an investment and/or financing perspective?</p>	<p>The contract for differences model could provide sufficient certainty to support the investments and allow financing to be secured at a reasonable cost.</p> <p>This model has a successful track record of financing new capacity resources in Ontario, as evidenced by the combined cycle gas procurements.</p> <p>As noted earlier, a ten-year contract term will likely be a challenge for most investors, given the mismatch with asset life and the limited track record of capacity markets in Ontario. This will result in increased financing costs.</p>
<p>What are some options for additional term that the IESO should consider?</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>Considering that 2025 and 2026 will be challenging years from a capacity perspective, it would be advantageous, from a Resource Adequacy and Reliability Standards point of view, if the LT RFP has the option to be advanced earlier with an optional in service date of 2023 or 2024.</p> <p>The LT RFP should not be limited to new build alone. It should be offered to any resource that is available to participate. If an existing asset is not able to compete in the Medium-Term RFP or if able this option is not profitable for that resource, then the resource/asset will shut down and the asset's capacity will be lost to the system.</p>

Mandatory Requirements and Rated Criteria

Topic	Feedback
<p>Please provide feedback on the mandatory requirements the IESO proposed.</p>	<p>The proposed mandatory requirements are reasonable.</p> <p>It will be helpful for the 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>Would the IESO identify how the Gate 2 requirements for the Evaluation of Unsolicited Proposals differs from the LT RFP proposal for mandatory requirements as it appears they may not be consistent?</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 mentions ancillary services in the rated criteria for desirable technical characteristics. OPG agrees this is an important part of the market and should be included as part of the evaluation. Generators that can provide ancillary services over the peak periods should be given priority.</p> <p>The scoring methodology for 4 through 8 hour duration resources should be transparent and based on an assessment of the intrinsic grid value. This topic will generate a high level of interest from the energy storage community, so it would be helpful for IESO to provide as much background information as possible on the perceived intrinsic grid value of different duration capacity resources.</p> <p>The LT RFP should include a decisive designation of the different mechanisms desired in specific areas to meet locational capacity need. The IESO needs to specify the criteria to be used in evaluating the different capacity resources that could possibly meet the need in areas such as the Northeast. Not all resources may be appropriate in a specific area. Considerable electrification is expected to occur in Northern Ontario and some procurements may be more favorable than others from a Resource Adequacy perspective.</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 in large wind, solar, hydroelectric, and gas facility development and operation that would be directly relevant to energy storage development.</p>

General Comments/Feedback

In determining the acquisition targets in the AAR, which will feed into the targets for the LT RFP, special consideration must be given to storage and its peak contribution, as there are diminishing returns as more storage is added to the system. In 2006, the maximum differential between the daily minimum and maximum demand was close to 11,000 MW, which was the highest in history. This is the amount of flexible generation that has to be online during the peak of the day but off-line at night. Solar compresses the on-off peak differential and the addition of solar generation over the last decade reduced this differential. This diminishes the value of energy storage and consequently batteries have diminishing returns.

Peak contribution of batteries flattens with increased installed capacity. As we add capacity, shorter duration batteries offer much less effective capacity. With the current amount of renewables on the system, OPG estimates that for intra-day batteries the threshold is around 3000 MW where additional supply from batteries is ineffective at further reducing peak demand. This is a consequence of having to charge the battery off peak. Longer storage capability is more helpful in mitigating the peaking problem. The evaluation of the proposals should take into account the diminishing value to the ratepayer of overbuilding a particular technology or resource.

The IESO should consider deviating from using the MT I RFP Capacity Contract as the template for the LT contract as the MT I RFP Capacity Contract has some inconsistencies for certain resource types. Deviations include:

- Reserve Price should not be mandated in the LT RFP as it is in the MT RFP
- If a market rule change limits the ability of the Supplier to include 'material costs' through its offer then the contract should allow for amendments to include those costs in the monthly fixed capacity payment
- The IESO should not limit/dictate when outages should be taken as is the case in the MT RFP. A resource should be able to take outages as per OEM recommendations and in accordance with Good Engineering Practices, in order to ensure safe and reliable operations.
- The IESO should include explicit provisions to allow for contract amendments as a result of introduction of new Laws and Regulations in the event that those Laws and/or Regulations interfere or impact the Supplier's ability to comply with the provisions under the original contract.
- Availability should be similar to that in the current CES style contracts (i.e. 80% calculated over a 36-month period).