

# Feedback Form

## Long-Term 2 RFP – December 13, 2023

### 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.

Following the LT2 RFP 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 <mailto:engagement@ieso.ca>** by January 15, 2024. If you wish to provide confidential feedback, please mark "Confidential". Feedback that is not marked "Confidential" will be posted on the engagement webpage.

# Resource Adequacy Framework and Cadenced Procurement Approach

Topic	Feedback
<p>Do you have any comments or concerns regarding the cadenced nature between upcoming LT and MT RFPs?</p>	<p>Cadenced procurements are a positive development as the cadence will provide confidence and motivation to the sector. Staggering the LT and MT procurements is also helpful – particularly for existing projects coming off-contract – giving facility owners multiple options to support decision-making for their projects. The cadenced approach could also allow for greater integration of transmission planning to align with generation development. More clarity regarding the timing of each procurement process would be helpful, as well as whether existing facility owners might be allowed to participate in a LT and MT process at the same time. The IESO may consider combining the LT and MT procurements into a single process that would allow proponents to efficiently participate in both opportunities.</p> <p>Given the timing outlined in the IESO deck, it is quite likely that the timing for the next medium-term and long-term procurements will be too late given the timelines required to make decisions on whether to repower or extend facilities that are coming off contract mid-decade. We note that the IESO’s Resource Adequacy Framework includes ‘Bilateral Negotiations’ to secure resources that can’t be addressed in a timely way through competitive forces. CanREA is seeking clarity from IESO on whether bilateral extension agreements or MT agreements will have the ability to convert into LT agreements for the purpose of repowering, where proponents pursuing repowering are successful in a LT RFP.</p>

Topic	Feedback
<p>Do you have any comments or concerns regarding the proposed offering of both capacity style and new revenue model style of contracts, based on resource eligibility requirements and system needs?</p>	<p>CanREA and its members have significant concerns regarding the proposed new revenue model. We recommend that the IESO adopt an indexed fixed price PPA including energy, capacity (if applicable, should the IESO also seek to purchase capacity), RECs and contracted curtailment caps. Our detailed comments on this are included in the Revenue Model section further below. Should IESO further explore capacity style and/or new revenue model style contracts, we would need to see the details of both contract styles to provide further comments. We also have concerns and would like to seek clarity on how IESO would prioritize and cross evaluate submitted proposals should different contract styles be offered. In addition, CanREA seeks clarity on whether IESO intends to procure capacity through the LT2 RFP and, if so, whether/how IESO might retain capacity rights under the various proposed contract styles.</p>
<p>Do you have any concerns regarding the proposed target setting approach for upcoming MT RFPs?</p>	<p>In setting a procurement target for upcoming MT RFPs as a percentage of all resources available, the IESO is attempting to prioritize affordability and create competition. While we agree that the energy transition must be affordable, it must also be reliable. Given that the IESO is forecasting 2% growth for the next 20+ years (and even higher growth rates from their Pathways to Decarbonization report), Ontario needs supply resources. Existing resources – connected and proven, with established community relationships – support both <b>reliable and affordable outcomes</b>. Leveraging existing resources also minimizes the environmental and community impacts of building new greenfield resources. We urge the IESO to consider other approaches to ensure cost-effective outcomes that better support reliability and take advantage of the inherent advantages of existing resources. In taking an approach that will secure only a percentage of all available resources via MT RFPs, the IESO risks losing affordable supply. Existing resources should be leveraged to the greatest extent possible.</p>

Topic	Feedback
<p>Do you have any comments regarding how best to employ bridging and extensions to contracts to facilitate the success of the Resource Adequacy Framework?</p>	<p>Bridging and extensions can be useful tools to support existing resources that may be transitioning to contracts acquired through LT and MT RFPs. However, clarity on pathways – bridging/extensions aligned with procurement contract periods – needs to be known as soon as possible to support decision-making for existing facilities with contracts that expire soon. We recommend that the IESO take a flexible approach to bridging and extensions, enabling optionality for resources with unique circumstances.</p>

## LT2 RFP Resource Eligibility and Timelines

Topic	Feedback
<p>Do you have any general feedback on resource eligibility and timelines?</p>	<p>It would 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.</p> <p>CanREA would like to see hybrids explicitly included as an eligible resource and evaluated on a level playing field with other non-emitting energy and capacity resources.</p>
<p>If the potential of repowering an existing facility applies to you, would you be interested in exploring this option further?</p>	<p>CanREA members are interested in repowering their facilities and continue to reliably and affordably supply energy to Ontario. Yes – we are interested in further developing the option to allow repowered facilities to participate in the long-term procurements.</p>

How should the optimal threshold for what constitutes a partial or fully repowered facility be determined and what considerations should be taken into account regarding the repowering of different resource types?

We do not support trying to define a fully or partially repowered facility based upon level of investment or increased output to determine eligibility to participate in the long-term procurements. Every facility is different, with different requirements and level of investment needed to operate the facility reliably for the 20-year length of the next contract. Instead we propose that all existing facilities be eligible to participate in long-term procurements so long as they can meet minimum operational requirements for the duration of the contract. With proper default provisions, facility owners will take requirements seriously and will ensure they invest accordingly.

Facility owners with an existing facility whose contract is ending (typically 20 years old) face two paths forward: reinvest substantially to enable the facility to operate reliably for the duration of the next contract (best suited for the long-term procurements) or invest minimally and run-to-failure (best suited for the medium-term procurements). Our proposal above achieves what should be the primary goal of procurement – to have reliable supply for the duration of the contract. If facilities can meet contractual obligations, they will have to have made the investments necessary to be eligible. CanREA is open to further discussion with the IESO to align on how to demonstrate how existing projects re-contracted via the LT2 RFP are committed to delivering contracted MWs for the term of the agreement.

We do not agree that a minimum capacity increase should be included in the criteria for an eligible repowered facility. Ontario has a significant shortage of transmission capability so many facilities would face constraints in delivering additional energy. Furthermore, meeting permitting requirements today may require some sites to remove turbines and reconsider their project footprint. Under this scenario, even when replacing major equipment with new equipment, certain repowered facilities may not be able to maintain the same output as the original site.

We believe the IESO should be simplifying and enabling maximum participation to allow for the very diverse circumstances in which current projects find themselves rather than forcing prescriptive and sometimes impossible

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	<p>commercial decisions. The focus should be on enabling existing facilities to reliably continue operation for the duration of the new contract. An example for comparison purposes: Ontario’s multi-billion dollar refurbishment of nuclear facilities will seek to maintain current capability well into the future. While some existing renewable generation facilities may be able to increase their capability, they should not be required to do so.</p>
<p>What considerations should be taken into account for new-build DERs?</p>	<p>DERs will be an increasingly important part of the resource mix going forward. We support frameworks and approaches that seek to maximize their participation. The LT2 RFP should allow aggregation of DERs.</p>
<p>Please express any interest and opportunities for uprates and/or expansions at any of your existing facilities.</p>	<p>Certain CanREA members may be interested in opportunities to uprate and/or expand their existing facilities – leveraging an existing connection and relationships with host communities. Every facility is different, and therefore CanREA encourages the IESO to have bilateral discussions with existing facilities to explore opportunities for uprates and/or expansions, in addition to opportunities for extensions and repowering.</p>

LT2 RFP Design Considerations – System Congestion and Deliverability Approach

Topic	Feedback
<p>What early system congestion information do proponents need to guide them in choosing the location of their projects and when is this needed by within the procurement cycle?</p>	<p>The proposed revenue model transfers all curtailment risk onto proponents/facility owners. CanREA and its members have significant concerns regarding the proposed new revenue model. Detailed comments on this are included in the Revenue Model section below.</p> <p>Should the new revenue model continue to be considered, CanREA would request that the transmission-related information below be provided by March 2024 and then be subsequently updated and provided on a regular basis at least 18 months in advance of future RFP bid deadlines.</p> <p>CanREA requests that the IESO publicly release detailed system information by March 2024 which provides specific forecasts of time and frequency of congestion, including 20-year regional price forecasts, expected hourly curtailment data and potential zonal / regional / subregional curtailment limits or ranges. TAT / DAT tables within each zone or region would also be very helpful. Proponents will need this information to guide siting and evaluate curtailment risk and corresponding bid price.</p> <p>CanREA requests that the IESO also publicly release an Ontario map including any red 'no go' areas and/or green prioritized areas by March 2024. This will allow proponents to begin project development work in time for the bid schedule. Other jurisdictions, including Quebec, have taken this approach.</p> <p>We would like to point out that changes to deliverability assumptions and/or location preferences later in the process risks stranding investments, especially for wind facilities where meteorological towers and other environmental screening must be completed pre-bid at material cost to proponents.</p>

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<p>Do you have any general suggestions for how to approach deliverability evaluation in the LT2 RFP?</p>	<p>CanREA recommends that a deliverability assessment <b>not</b> be conducted as part of the LT2 proposal evaluation process as it introduces additional risk and uncertainty for proponents.</p> <p>Should the new revenue model continue to be considered, the IESO would need to provide accurate, useful and durable deliverability data to the sector by March 2024 (detailed requests in section above). This critical information affects proponents' ability to select viable sites, evaluate curtailment risk and forecast project economics.</p> <p>However, CanREA notes that during the LT2 contract period of ~2030-2050, the Ontario power system will undergo immeasurable change. Therefore, CanREA submits that it would be practically impossible for the IESO to provide reasonably accurate and durable deliverability data for this long-term period.</p> <p>Therefore, CanREA submits that the IESO should retain curtailment risk through an indexed fixed price PPA revenue model and contracted curtailment cap, as has been standard practice across other provincial wind and solar procurements across Canada over the past decade.</p>

LT2 RFP Design Considerations – General Feedback





Do you have any comments regarding the impacts that agricultural land-use limitations may have on project development?

CanREA recommends that LT2 and future IESO procurements do not include additional restrictions on agricultural land use. The Provincial Policy Statement outlines land-use rules for energy development that municipalities must uphold. CanREA submits that energy development and land-use decisions are most appropriately addressed through local municipal planning decision-making processes.

Wind, solar and storage facilities have different footprints, and each technology should be considered separately. Wind generation has a very small footprint – a typical wind farm uses an average of only 0.23 acres per turbine. Wind supports farmers to remain on the land by providing a guaranteed income which is often not available from regular farm operations and can complement farming activity.

While solar generation has a larger footprint, it can also go hand-in-hand with farming activities through the deployment of multi-use land planning and / or agrivoltaics. There are numerous examples of balanced multi-use land planning and agrivoltaics successfully implemented in Canada and abroad, providing win-win opportunities for farmers.

Battery energy storage systems have moderate land requirements relative to other supply technologies. However, when paired with a wind or solar farm to form a hybrid facility they can provide a cost-effective source of energy and capacity – often far away from urban or concentrated electricity infrastructure sites like transformer stations.

There are numerous opportunities for balancing agricultural land-use with wind, solar and storage facilities. Limiting renewable energy development to certain soil and land types across the board is inconsistent with local municipal planning authorities and decision-making processes, and with landowner rights to assert authority and action over their own property.

CanREA submits that it is important for non-emitting facilities to be located near transmission lines to minimize

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	ratepayer costs and near load to maximize grid efficiency and reliability, which may require siting on certain types of agricultural land, especially in southern Ontario. Any additional restrictions on land use will push development to less desirable sites – with potentially lower wind or solar regimes and potentially further away from load centres – leading to higher cost solutions and/or significantly reduced levels of investment.
Do you have any comments regarding what evaluation criteria can be utilized to evaluate project readiness, given tight timelines and reliability needs?	CanREA currently has no comments on this item. We request that the IESO put forth proposed evaluation criteria to be utilized to evaluate project readiness, so that CanREA and its members can provide more detailed feedback.
Do you have input on the proposed mechanism for valuing Indigenous participation?	Indigenous participation and partnership is key to energy development and reconciliation and is supported by CanREA members. Given the scale of development needed to support the energy transition, we encourage IESO to work with government to develop a framework for engagement and partnership with indigenous rights-holders.
Are there any other rated criteria that should be considered?	No comment

### Long Lead Time Resources

Topic	Feedback
Does the proposed approach to enabling long-lead time resources enable meaningful participation or sufficient certainty?	No comment
What additional considerations should the IESO contemplate for enabling broader participation from long-lead time resources?	No comment

### Revenue Model

Topic	Feedback
<p>As a potential proponent, are you generally supportive of the proposed Enhanced PPA revenue model? Are there any other considerations that the IESO should look into further with regards to the revenue model?</p>	<p>CanREA and its members have significant concerns regarding the proposed enhanced PPA revenue model and do not support it. We recommend that the IESO adopt an indexed fixed price PPA model including energy, capacity (if applicable, should the IESO also seek to purchase capacity), RECs and contracted curtailment caps. The proposed model transfers significant unmitigatable risk onto developers. The result is significant uncertainty for proponents and inefficient transfer of risk. The proposed model would deter investment or lead to higher costs for Ontario ratepayers. Considering the magnitude of energy needs in Ontario, we submit that now is not the time to experiment with new revenue models. Developers will prioritize a 'tried and true' fixed price PPA model when determining where to focus their attention among jurisdictions currently competing for clean energy resources.</p> <p>We acknowledge that the IESO proposal attempts to reduce risk associated real-time energy price uncertainty. However, we have several concerns:</p> <ul style="list-style-type: none"> <li>- The IESO revenue model approach exposes procured resources to wholesale market energy prices to align operational profiles with system needs and price signals. However, exposure to wholesale energy prices is a worthwhile goal for resources that can store the fuel and use it later and/or for which there is a fuel cost. As such, we don't see that a standalone wind or solar facility will be price responsive at prices above \$0/MWh – eliminating a key driver for this revenue model. We note that a hybrid facility is better able to respond to market signals because of its ability to store energy.</li> <li>- The project proponent is to bid a project production factor that is, in theory, a combination of expected wind or solar output multiplied by expected curtailments. However, expected curtailments over the period ~2030-50 will be impossible to predict – as mentioned above. Therefore, the IESO is transferring all curtailment risk to proponents. This will likely have the effect of increasing prices to manage that risk.</li> <li>- The revenue model intends to use a single production factor for the whole year. This may make sense in the</li> </ul>

NYSERDA model that has been developed for offshore wind in New York. Ignoring the impact of curtailment, the output of wind and solar facilities varies from month-to-month in Ontario. Use of a single production factor for the year will distort the IESO's approach to help the proponent manage price risk and may exacerbate it.

## General Comments/Feedback

The most critical issues for CanREA and its members emerging from the IESO's December 13, 2023 LT2 RFP engagement are:

### 1. Revenue model

The IESO has proposed an entirely new revenue model for the LT2 energy procurement. The new model proposes to transfer significant unmitigatable risk onto developers. CanREA recommends that the IESO adopt an indexed fixed price PPA model including energy, capacity (if applicable, should the IESO also seek to purchase capacity), RECs and contracted curtailment caps. More details are provided in the feedback table above.

### 2. Deliverability

Should the new revenue model continue to be considered, the IESO would need to provide accurate, useful and durable deliverability data to the sector by March 2024. This critical information affects proponents' ability to select viable sites, evaluate curtailment risk and forecast project economics. However, CanREA submits that it would be practically impossible for the IESO to provide reasonably accurate and durable deliverability data for the ~2030-2050 contract period. Therefore, CanREA submits that the IESO should retain curtailment risk through an indexed fixed price PPA revenue model and contracted curtailment cap, as has been standard practice across other provincial wind and solar procurements across Canada over the past decade.

### 3. Resource eligibility

CanREA submits that the IESO is proposing an overly prescriptive approach to resource eligibility. In our detailed comments in the table, CanREA advocates for broader eligibility to support quality, low-cost outcomes. This includes leveraging existing resources to the greatest extent possible with as much optionality as possible, explicitly including hybrid resources and evaluating them on a level playing field with non-emitting resources, and enabling new-build DERs, including aggregations of DERs.

### 4. Agricultural land use

CanREA recommends that LT2 and future IESO procurements do not include additional restrictions on agricultural land use. The Provincial Policy Statement outlines land-use rules for energy development that municipalities must uphold. CanREA submits that energy development and land-use decisions are most appropriately addressed through local municipal planning decision-making processes.

**Comments on related issues:** Procurements are just one of several tasks/obstacles in the process of developing, procuring, building and connecting new and/or extending existing facilities. CanREA

has identified a number of issues – Crown land access, agricultural land access, permitting, transmission buildout, municipal support and other issues – and has been working to resolve them. These are substantial issues, many of which need to be addressed in a timely manner to support development of bids. It's not clear who owns these issues, who is doing what and what the timelines for resolution might be. In particular, there is a large gap in providing support for municipal acceptance. A clear, consistent narrative of system need and approach to transitioning the electricity fleet – with cost impacts and benefits to municipalities potentially hosting projects is needed. The IESO recently appeared in municipal councils to support potential LT1 projects – when invited - and spoke on behalf of some but not all technologies. IESO should work with CanREA and members to enhance this ad hoc approach to support more informed dialogue at municipal councils.

### **Municipal Support**

Comment regarding proposed pre-bid municipal support requirement: Municipalities who only provide their support in response to a firm project layout ignores the fact that projects should and must evolve the layout to address permitting requirements post contract. We request that the IESO clearly articulate processes and mechanisms within its own procurement and contract management processes to allow this to occur.

Alternatively, IESO may consider changing the timeframe for required municipal support to pre-construction rather than pre-bid. For the LT2 RFP, pre-bid municipal support could initially be included as a rated criteria and then a requirement pre-construction. This would provide more time for proponents to engage meaningfully with municipalities and provide the information needed to build social license and obtain community buy in.

In addition, CanREA would like to seek clarity from IESO on:

1. The definition of a municipal support resolution and what exactly would be required by the IESO to satisfy any municipal support resolution requirements; and
2. Whether and/or how municipal support resolutions may be obtained for unorganized townships.