

Stakeholder Feedback and IESO Response

Long-Term 2 RFP (LT2 RFP) – February 12, 2024

Following the December 13, 2024, LT2 RFP engagement webinar, the Independent Electricity System Operator (IESO) invited stakeholders to provide feedback on its Resource Adequacy Framework, cadenced procurement approach and LT2 RFP design considerations. The IESO is currently in the design stage of the LT2 RFP. Stakeholder feedback will be reflected in the IESO's report back to the Ministry of Energy in March 2024. Feedback is posted on the Long-Term RFP [engagement webpage](#). Please reference the feedback forms for specific feedback as the information below is provided in summary.

Note on Feedback Summary and IESO Response

The IESO appreciates the feedback received from stakeholders. The following tables respond to the feedback received and are organized by each topic. This document is provided for information purposes only. It does not constitute, nor should it be construed to constitute, legal advice or a guarantee, offer, representation or warranty on behalf of the IESO.

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A) Resource Adequacy Framework and Cadenced Procurement Approach

Stakeholders were supportive of the IESO’s Resource Adequacy Framework and cadenced procurement approach, indicating that coordinated scheduling of procurement opportunities provides flexibility to target opportunities that best suit their needs. Specific feedback on the IESO’s framework and approach is summarized below.

Feedback / Common Themes	IESO Response
<p>The IESO should provide details for future procurements as early as possible: this will support project planning decisions and enable greater investment in project development. Parameters should be clearly defined to include procurement timelines, sizes of procurements, type of product being procured, technology types and anticipated geographical limitations.</p>	<p>The IESO agrees that forward guidance and clarity for stakeholders should be provided as soon as possible. The LT2 RFP is currently in its design stage and in the process of collecting feedback to inform the IESO’s March 2024 report back to the Minister of Energy. Following the release of the IESO’s Annual Planning Outlook (APO) and once evaluation of the LT1 RFP is complete, the IESO will have a better sense of the exact nature of emerging energy and capacity needs for the LT2 RFP and beyond. The IESO acknowledges the need to provide stakeholders value by finalizing specific design elements, including the revenue model utilized for the LT2 RFP and future energy-based procurements, and will begin to signal the nature of future opportunities in more detail when the LT2 RFP design is finalized.</p>
<p>MT RFPs should be defined in parallel with the LT2 RFP: to accurately inform proponents and provide optionality on project planning decisions, information pertaining to the MT RFP, such as baseline targets and design of the RFP and contract should not be developed after the LT2 RFP process. The IESO should also consider combining MT and LT RFPs into a single process that allows existing facility owners to efficiently participate in both opportunities at the same time.</p>	<p>The IESO is considering this approach as it develops the cadence between Medium-Term (MT) and Long-Term (LT) RFPs. Executing the MT and LT RFP in parallel could provide existing facilities with the opportunity to extend the useful life of their assets, allowing them to make repowering decisions at a later date. The IESO’s decision will be informed through updated capacity forecasts that will be published in the IESO’s forthcoming Annual Planning Outlook and will be reflected in the March 2024 report back to the Minister of Energy.</p>

Procurements should be separated based on energy or capacity and by technology type:

the LT2 RFP should focus solely on energy as a capacity style model is difficult for renewable resources to commit to and a combined model does not provide proponents with revenue certainty. Procurements should also be separated by technology type (i.e. wind, solar, hydro, energy storage, hybrids) to ensure fair competition under an Enhanced PPA model.

The IESO anticipates that long-term RFPs on a go forward basis will include two distinct streams; energy and capacity. The target under each stream will be informed by the system reliability needs present at the time. The energy stream of the LT2 RFP is anticipated to target 5 TWh of energy needs utilizing the Enhanced PPA revenue model. Based on the outcomes of the LT1 RFP, should the IESO require additional capacity, the capacity stream would leverage the already developed capacity-based contract used for both E-LT1 RFP and LT1 RFP procurements.

Furthermore, the IESO will consider specific targets for technologies in the LT2 RFP as the nature of energy needs is firmed up.

Provide clarity to capacity rights under the LT2 RFP and the proposal evaluation process:

greater clarity is needed from the IESO on how it will retain capacity rights under the proposed contract style and how it plans to prioritize and cross-evaluate contracts that may or may not include capacity components against capacity-only proposals.

The IESO will provide additional detail on the LT2 RFP proposal evaluation methodology and the treatment of capacity under the LT2 RFP revenue model at a later date. The IESO provided some further detail on the proposed proposal evaluation process during the February 1, 2024 LT2 RFP engagement webinar. Stakeholders are invited to provide more detailed feedback on these matters.

Feedback / Common Themes	IESO Response
<p>MT RFP Targets should be set based on system needs: MT RFP targets set as a percentage of installed capacity will result in targets that are lower than the available supply. This can impact system reliability by potentially leading to the retirement of proven resources. Additionally, the IESO should consider setting targets based on annual energy expectations rather than capacity. Clarity is also needed on whether MT RFP targets will include remaining capacity from previous LT RFPs and potential capacity from future RFPs.</p> <p>MT RFP resource eligibility: many stakeholders indicated that eligibility should be extended to include resources currently participating in the IESO’s annual capacity auction and those willing to come off contract early. A few stakeholders also indicated that natural gas resources should be restricted from participating in future MT RFPs as the procurements could be used to extend natural gas resources by 5-year increments on an on-going basis.</p>	<p>The IESO is taking this feedback into consideration by exploring options that will ensure the MT2 RFP is able to meet system needs while maximizing competition to provide value for rate payers. The IESO will finalize and share MT2 RFP procurement targets at a later date after the LT1 RFP evaluation process is complete.</p> <p>During the February 1, 2024 LT2 RFP engagement webinar the IESO proposed to extend MT2 RFP eligibility to include generators that are either off-contract prior to the MT2 RFP term commencement date or participating in the IESO’s annual Capacity Auction. The IESO is considering the resource technology types that will be eligible to participate in future MT RFPs and will consider federal and provincial policy and legislation in establishing eligibility.</p>
<p>The IESO should develop an independent program to re-contract hydroelectric facilities > 10MW: facilities in Northern Ontario should be targeted by the IESO in an RFP that builds from the framework and key principles developed in the IESO’s Small Hydro Program.</p>	<p>The IESO appreciates the feedback. For clarity, hydroelectric facilities are eligible to participate in the LT2 RFP and future Long-Term RFPs as either a new-build resource, or as an expansion.</p>

Provide clarity on the IESO's approach to bridge and extend contracts that expire prior to the MT2 RFP: clarity needs to be provided as early as possible to support decision-making for existing facilities with contracts that expire soon.

- **Bridging/extensions should utilize a standardized approach to bridge off-contract resources through to its next RFP opportunity:** proponents should have the opportunity to participate as either a capacity or energy facility and receive standardized pricing and contract terms based on their selection as it would provide certainty to suppliers for potential future opportunities.
- **Bridging/extensions should utilize a flexible approach:** proponents should be able to elect their own extension terms (e.g. contract length, value) so that they can have the flexibility to participate in shorter procurement streams (i.e. Annual Capacity Auction, MT RFP) until investment decisions can be arranged. Proponents should also be provided the ability to convert and bridge MT contracts into LT contracts. This will enable greater repowering of existing assets by allowing a supplier to extend contract duration in the interim and prepare for a future LT proposal.
- **Bilateral Negotiations should be utilized to secure resources whose contracts cannot be bridged in time for the MT2 or LT2 RFP:** negotiated contracts should have the ability to convert into LT agreements and should also be eligible for expansion or uprate opportunities.
- **A maximum period for bridging expiring contracts should be established:** the IESO should engage stakeholders to establish a maximum period of time through consultation.

As indicated at the February 1, 2024 LT2 RFP engagement webinar, the IESO is evaluating options for contract bridging for those facilities with contracts that expire prior to the MT2 RFP. The IESO is collecting additional feedback on this topic and will incorporate it into the March 2024 report back to the Minister of Energy.

The IESO views the MT RFP and the annual Capacity Auction as mechanisms that will enable the continued operation of existing resources while suppliers consider more capital-intensive decisions that may be appropriate for participation in long-term RFPs. The IESO would allow exit from MT RFPs should suppliers be awarded a long-term contract under this approach.

B) LT2 RFP Resource Eligibility and Timelines

Several stakeholders signaled they were interested in repowering opportunities, uprates or expansions, and indicated that opportunities existed at their sites. Common themes of feedback on this topic are summarized below.

Feedback	IESO Response
<p>Provide greater clarity on what constitutes repowering, its specific requirements and why it is necessary: clarity should be provided to better differentiate between repowering and uprates/expansions.</p>	<p>Repowering refers to an existing non-emitting electricity generation facility that was previously the subject of a contract with the IESO, undertaking the necessary capital investment, such that the facility can continue to operate and provide energy for the entire duration of the LT2 contract term. The IESO is proposing that the repowered facility would be subject to the same performance obligations (yet to be determined) under the LT2 contract as a new-build facility.</p>
<p>Repowering thresholds should not be set using a pre-determined mandatory increase in capacity: transmission constraints and site-specific constraints (e.g. permitting requirements due to a larger project footprint) can potentially restrict the increased capacity of a facility. Eligibility requirements should be set in a manner that encourages the optimization of existing facilities by taking into account technical (e.g. amount of equipment being replaced), economic (e.g. investment size relative to plant cost) and environmental considerations. Alternatively, repowering could be based on a minimum output.</p> <p>Repowering thresholds should be set using energy instead of capacity: thresholds should be determined as a minimum energy increase for a facility as refurbishment with newer technologies can make more energy available from a facility while maintaining the existing capacity.</p>	<p>The IESO acknowledges the challenges identified regarding the use of a mandatory capacity increase threshold to qualify repowered facilities. This insight will be taken into consideration as the IESO continues with the design of the LT2 RFP.</p> <p>The IESO appreciates the feedback and will continue to work with stakeholders to establish appropriate qualification criteria and performance obligations for repowered facilities' participation in the LT2 RFP.</p>

Feedback	IESO Response
<p>Repowering of existing facilities should not require Municipal Support Resolutions (MSRs): these resources did not require MSRs under the Green Energy Act and should be considered as legacy resources. For wind resources, permitting requirements may not allow for an increase in size and may require some resources to remove turbines, effectively reducing output. For applicable solar resources, only the AC side of a solar asset should require new permitting with an applicable LDC.</p>	<p>The IESO will consider applicable environmental and land-use permitting limitations for existing facilities in conjunction with its development of the LT2 RFP and will include feedback in the March 2024 report back to the Minister of Energy.</p>
<p>Provide clarity on which portion of capacity from a re-powered facility will count toward the LT2 RFP procurement target: the IESO should advise if only the net new portion of a repowered facility will count towards the target.</p>	<p>Only the net new portion of a repowered facility's contract capacity will count towards the LT2 RFP 5TWh procurement target. For clarity, if an existing facility makes the necessary capital investment such that an LT2 contract is signed, providing a contract capacity that is identical to that of the previous agreement, none of the capacity associated with this repowered facility will be counted towards the LT2 RFP energy target.</p>
<p>Existing facilities and repowered facilities should not be eligible for the LT2 RFP: the LT2 RFP should focus on new-build resources, as existing contracted resources should be incentivized to participate in the Ministry's upcoming corporate PPA program that would provide market-linked revenues to existing resources who have completed their previous contracted terms.</p>	<p>The IESO plans to enable repowered projects to participate in the LT2 RFP but notes that only net new capacity will be counted towards the 5TWh energy need.</p>
<p>Re-powering investments should be driven by contractual terms: contract obligations and penalties for non-performance should be designed to ensure that proponents are able to make the required investment to enable re-powered facilities to meet their 20-year contract obligations.</p>	<p>Repowered facilities will be subject to the same performance obligations as new-build facilities under the LT2 contract. The onus will be on the proponent to ensure sufficient investment is made in a repowered facility such that these performance obligations can be met for the entire term of the LT2 contract.</p>

Feedback	IESO Response
<p>Re-powered facilities should be extended to include those with net-metering contracts: these facilities can be easily technically changed so that their physical connections allow for direct injection of energy.</p>	<p>For the purposes of the LT2 RFP, the IESO is focused on non-emitting, energy producing resources that can satisfy the proposed mandatory requirements of the procurement. Should a facility be technically modified and repowered in a manner that satisfies these requirements, then the IESO could consider its participation.</p>
<p>Provide clarity on eligibility requirements for DERs:</p> <ul style="list-style-type: none"> • Eligibility for new build DERs should be guided by considerations that distinguish between an upgrade, uprate and repowering. Also, clarity is needed on eligible technology types and if hybridization would be considered as a new-build DER. The IESO should enable DERs less than 1 MW to participate in the LT2 RFP. • Eligibility should be expanded to include aggregate DERs and dispatchable loads: aggregation enables DERs to effectively compete against large scale renewables, dispatchable loads will incentivize the siting of solar and storage at load facilities and drive more competition and value for rate payers. 	<p>During the February 1, 2024 LT2 RFP engagement webinar, the IESO stated its intent to enable new build stand-alone or aggregated DERs that are able to meet the mandatory requirements of the procurement. The mandatory requirements are expected to consist of a facility being non-emitting, energy producing, and at least 1MW in size or as enabled in the market. It is also expected that the supplier become an IESO market participant by the milestone commercial operation date (COD). Further, to meet imminent reliability needs, the IESO will focus its efforts on procuring new-build generation whose primary role is to provide services to the grid by way of daily injections. Further information on opportunities for aggregated DERs can be found via the Enabling Resources Program’s (ERP) foundational model for DER participation in IESO markets.</p>
<p>New-build DERs should be eligible to receive early operations incentives: early incentives should be provided to resources that can come online ahead of the LT2 RFP COD.</p>	<p>The IESO is considering the appropriateness of early operation incentives for any technology able to come online ahead of the milestone date for COD. These incentives will be driven by the exact timing and magnitude of emerging needs.</p>
<p>The IESO should consider a bifurcated approach for DERs: a separate LT2 RFP procurement target should be set for DER resources where a contract for differences should be utilized.</p>	<p>The LT2 RFP is a system-reliability based procurement, rather than a policy-based procurement. As such, the IESO is not exploring a separate approach with a tailored revenue model for DERs.</p>

Feedback	IESO Response
<p>DERs should not be required to become a market participant: small scale facilities less than 10MW should be provided the option to receive a simplified PPA based on a contract for differences.</p>	<p>The IESO will continue to liaise with the ERP team, responsible for enabling DER participation in IESO markets. However, the LT2 Contract is expected to require that suppliers become market participants ahead of commercial operation and remain market participants during the operation of the contract. Potential proponents should explore opportunities to participate under models including aggregation behind a single node (connection point), as outlined in the ERP foundational model for DERs.</p>
<p>DERs should have the same data monitoring requirements as transmission-connected resources: equivalent telemetry and other data monitoring requirements allows the IESO to realize the full benefit of DER resources.</p>	<p>Through the ERP, the IESO is working on opportunities to reduce the cost barriers associated with metering arrangements and with the installation of data monitoring equipment. Stakeholders are encouraged to familiarize themselves with the IESO's DER integration activities and participate in future DER engagement activities by contacting engagement@ieso.ca.</p>
<p>Price adders for DERs: the IESO should consider price adders for DERs based on their location to priority distribution systems.</p>	<p>The IESO is currently not considering price adders based on the proximity to distribution systems for DERs.</p>

C) LT2 RFP Design Considerations – System Congestion and Deliverability Approach

Many stakeholder submissions included comments pertaining to system congestion information and the IESO’s deliverability approach. Most stakeholders were not supportive of preliminary deliverability tests and indicated that system congestion information provided by the IESO would equip them to perform their own deliverability evaluations. A few stakeholders supported preliminary deliverability tests indicating that early test results would allow stakeholders to cost-effectively address deliverability issues. Feedback on this topic is summarized below.

Feedback / Common Themes	IESO Response
<p>Provide system congestion information and data to proponents as early as possible: detailed information is crucial to site selection and should be provided no later than 18 months prior to the proposal submission deadline as delays will reduce the amount of time proponents have available to attain municipal support resolutions.</p> <p>Congestion details should be disclosed in the form of a system map in order to support siting decisions: most stakeholders requested a system map that reflects deliverable and non-deliverable areas through connection capacity and congestion. This map should be provided by the IESO as early as possible and once provided, details should be updated on an on-going basis (i.e. annually). Some stakeholders indicated that the system congestion details should be limited to an indication of deliverable regions as the IESO is in the best position to manage congestion risks during grid operation or over the long term.</p>	<p>As indicated in the February 1, 2024 LT2 RFP engagement webinar, the IESO is targeting the end of March 2024 to provide system congestion data for the transmission system only.</p> <p>The IESO is considering the level of congestion and reliability data which will be provided to stakeholders as guidance to support project site selection. As described in the February 1, 2024 LT2 RFP engagement webinar, congestion data being considered by the IESO includes zonal limits (or availability), or data that could be used to calculate zonal limits, as well as line capacity limits (or availability). In addition to congestion information, the IESO is considering providing guidance to minimize potential reliability impacts. Collectively, the information provided by the IESO will provide guidance that will help proponents select sites that would meet the IESO’s reliability needs.</p>

Provide clarity and details on the LT2 RFP deliverability process: details and methodology should be shared with proponents by April 2024 to support project siting decisions. Details should include how the process will be conducted for all technology types, including integrated and co-located hybrids. Delays will reduce the amount of time that is available to obtain municipal support resolutions. Some stakeholders also requested that the IESO hold a separate engagement session on the LT2 RFP deliverability process. Clarity should also be provided on how deliverability will be evaluated for integrated or co-located hybrid proposals.

The IESO should not implement preliminary deliverability tests: most stakeholders indicated that tests are not necessary as proponents can perform their own analysis if detailed system congestion is shared by the IESO. It is also not practical for the IESO to provide reasonable accurate durable deliverability data for the commitment period of the LT2 Contract.

Production factors should be considered as a tie-breaker in the proposal evaluation process: competing proposals at the same location should be differentiated by their ability to provide energy.

Will a project determined to be deliverable at the time of LT2 contract award be confirmed to be deliverable at the time of commissioning? Clarity is needed on conditions that would result in a deliverable project no longer being deliverable at the time of commissioning.

At the February 1, 2024 LT2 engagement webinar, the IESO indicated that the LT2 RFP evaluation process for resources in the energy procurement will include an assessment of deliverability during the proposal evaluation stage. The IESO is currently developing details of the deliverability test that considers stakeholder feedback. This approach will be shared with Proponents in upcoming engagements.

The IESO will not be conducting preliminary deliverability tests for LT2 RFP proposals that are participating in its energy procurement. Instead, as indicated in the February 1, 2024 LT2 RFP engagement webinar, the IESO is considering providing preliminary system congestion information. The IESO will evaluate the deliverability of LT2 RFP energy proposals during the LT2 RFP proposal evaluation stage in order of each proposal's evaluated price.

The IESO appreciates this feedback and will consider this when determining its approach to differentiating between competing but deliverable and deliverable projects during the LT2 RFP evaluation stage.

The LT2 deliverability test, as with the E-LT1 and LT1 RFP deliverability tests, are intended to minimize the risk of a contracted facility being congested. However, there might be system conditions beyond the system conditions tested that could result in any existing or new facility being congested.

D) LT2 RFP Design Considerations – General Feedback

The IESO requested general feedback on project readiness criteria, agricultural land use restrictions and LT2 RFP evaluation criteria. Almost all stakeholders indicated that the IESO’s project readiness approach should be comprehensive and developed early to allow stakeholders to provide feedback on the proposed design. Some stakeholders also indicated that a proposal security requirement alone provides incentive to encourage project completions. Most stakeholders were not supportive of restrictions on agricultural lands. Feedback on these topics is summarized below.

Feedback / Common Themes	IESO Response
<p>The IESO should require project readiness criteria to be comprehensive: it should include detailed project schedules, evidence of site control and land agreements, status of equipment procurement and supply chain arrangements, local and regulatory permitting details, financing details, experience qualifications. Evaluation criteria for project readiness should be shared by the IESO as early as possible as it will allow stakeholders to provide feedback based on the considerations that the IESO is making.</p>	<p>The IESO will consider this feedback as work progresses on designing rated criteria.</p>
<p>The IESO should not utilize an RFQ process prior to the LT2 RFP: as it reduces competition amongst and can be replaced by establishing mandatory minimum experience thresholds.</p>	<p>As indicated in the December 13, 2023 LT2 RFP engagement webinar, the IESO will not utilize an RFQ process for the LT2 RFP.</p>
<p>The IESO should allow proposals to include bid variants: the option to bid different prices and project sizes within a single submission will save time for the IESO and stakeholders and decrease the volume of submissions that the IESO receives.</p>	<p>The IESO will consider allowing proposals to reflect a defined number of proposal prices and sizes within a single submission.</p>

Decisions on agricultural land use should be made locally by municipalities and not by the IESO: existing land use policies and legislation outline land-use rules to inform and guide municipalities to make project siting decisions for siting projects on agricultural lands.

- **Agricultural land-use restrictions will decrease competition amongst proposals and reduce value for ratepayers:** restrictions will drive proponents to less desirable sites and likely result in smaller sites that are located further away from connection points and in frequently congested areas where production output may be lower.
- **The IESO should consider the benefits of agrivoltaics when deciding on agricultural land use restrictions:** multi-use land planning and agrivoltaics provides the opportunity to optimize the co-location of solar projects with agricultural activities.
- **All Class 3 agricultural land should be eligible for project development:** in previous FIT contract procurements, there were no restrictions on these lands
- **Limitations should be imposed for the siting of BESS installations on Class 1,2,3 and 4 agricultural lands:** in order to ensure the avoidance of siting infrastructure on Ontario's finite and declining farmlands.

Rated criteria points should be provided to Proposals for the type of land a project is sited on: points should be provided based on whether projects are sited on agricultural lands. The class of agricultural land and ability should be taken into consideration as well as the ability to co-optimize with farming activities.

The IESO appreciates the feedback received and will include it in the March 2024 report back to the Minister of Energy. The IESO is planning to conduct standalone informational webinars with a number of ministries, including the Ministry of Agriculture, Food and Rural Affairs (OMAFRA) to better understand policy requirements pertaining to land-use and siting. The IESO is currently in the process of scheduling such informational webinars between communities and ministries.

Feedback / Common Themes	IESO Response
<p>The IESO should utilize rated criteria points similar to those in the LT1 RFP for Indigenous participation: as they would provide continued opportunities for Indigenous groups directly impacted by proposed projects.</p>	<p>The IESO appreciates this feedback. As indicated at the December 13, 2023 LT2 RFP engagement webinar, the IESO is proposing to utilize rated criteria points for Indigenous community participation in the LT2 RFP that are consistent with the LT1 RFP design.</p>
<p>The IESO should consider a price adder for projects with Indigenous participation: as it could incentivize further Indigenous participation. For example, the IESO could provide an adder for proponents who have an Indigenous equity interest that is 50% or greater.</p>	<p>The IESO appreciates the feedback received and will include it in the March 2024 report back to the Minister of Energy.</p>
<p>Transmission limitations and agricultural land restrictions will limit the ability of many Indigenous communities to obtain rated criteria points for local Indigenous participation: the IESO should modify rated criteria points so that all Indigenous communities have an equal opportunity to receive them.</p>	<p>The IESO is in the process of evaluating how rated criteria points for Indigenous community participation will be determined in the LT2 RFP and is considering a design that is consistent with that of the LT1 RFP. The IESO has proposed additional rated criteria points for local Indigenous community participation based on community feedback received during the LT1 RFP, which indicated that separate points for local Indigenous participation would incentivize greater Indigenous participation. Rated criteria points for Indigenous community participation are still available to Indigenous communities which will not have a project sited in their community.</p>
<p>The IESO should engage with the Canadian Investment Bank (CIB) to integrate its new Indigenous Equity Initiative program into the LT2 RFP: this new program will provide Indigenous communities with access to capital so that they can purchase equity stake in projects that the CIB is investing in.</p>	<p>The IESO appreciates the feedback provided and will engage with the CIB to better understand opportunities available for the LT2 RFP.</p>

The IESO should establish new tranches of rated criteria points for:

- **Community Participation** whereby points are awarded based on the level of investment or ownership by individuals or entities that are located within the same jurisdiction as the project site;
- **The Carbon Intensity Factor of Proposals** whereby the IESO could incentivize projects with a lower score by using an industry accepted life cycle assessment tool to assess the carbon intensity of proposals;
- **Commercial Operation Date** as it can facilitate competition between long-lead time resources;
- **Geographic Location** as it can incentivize project sites to be located closer to areas of high demand;
- **Financial Capacity** as assessing the financial soundness of a proponent by using its credit rating can reduce the probability of awarding LT2 contracts to pre-mature proposals that may not have indicative financing terms secured;
- **Developer Experience** whereby points are awarded to proponents who have team members with previous experience developing renewable assets.

The IESO appreciates this feedback on potential rated criteria. Rated criteria are unique to each procurement and incentivize certain technical traits or policy benefits in submitted proposals. Rated criteria for the LT2 RFP will be further developed after the procurement is better informed of emerging needs from the Annual Planning Outlook and policy considerations resulting from the March 2024 report back to the Minister of Energy. This submitted feedback will be considered as this time.

E) Long Lead Time Resources

Stakeholder comments on the IESO’s proposed approach for long lead time resources were generally supportive indicating support for multiple procurement streams with specific targets within the LT2 RFP, based on technology type. Specific feedback on the IESO’s approach for long lead time resources is summarized below.

Feedback / Common Themes	IESO Response
<p>The IESO should not procure long lead time resources in a separate LT2 RFP stream: some stakeholders were against the bifurcated approach; stating the IESO should define a specific need and select the most-effective resources to meet that need. To maintain fairness and competition in the LT2 RFP, stakeholders indicated that all projects should be evaluated based on the same set criteria as it relates to costs, ability to meet the IESO’s zero-emitting energy needs, and timelines.</p>	<p>The IESO is procuring long lead time resources through a bifurcated approach to help support a more diverse supply mix, which is as an important element in addressing system reliability needs.</p>
<p>Provide clarity on early operation incentives: stakeholders inquired as to whether there would be any early operations incentives for long lead time resources.</p>	<p>The IESO is considering incentives for all resources and will take into consideration whether early operation incentives are appropriate for long lead time resources.</p>
<p>Provide clarity on resource eligibility for long lead time resources: stakeholders requested the IESO define which technology types would be considered long lead time resources. Would there be circumstances where wind and solar participate in the long lead time stream.</p>	<p>At the February 1, 2024 LT2 RFP engagement webinar, the IESO indicated that it is only considering hydroelectric and long duration storage resources for the LT2 RFP long lead-time stream. Wind, solar, and lithium-ion based battery resources will not qualify for the long lead time stream.</p>
<p>Provide long lead time resources with longer term contracts: Stakeholders felt that the contracts for long lead time resources should have a longer term to reflect the longer life expectancy of these resources (notably waterpower).</p>	<p>The IESO will consider this feedback and how it applies to different resource types and technologies.</p>
<p>The IESO should provide additional contract incentives to long lead time resources as they provide the IESO with</p>	<p>The IESO is open to considering how best to accurately value resource specifications and the products they can provide. The IESO invites</p>

greater system reliability than other non-emitting resources: stakeholders voiced that provisions should be included to value additional system benefits such as capacity, reliability services and power quality that long lead time resources may be able to provide.

stakeholders to provide additional details on the products and services that can be provided and how stakeholders feel they should be valued.

The IESO should provide additional contract incentives to address cost uncertainties for long lead time resources: stakeholders felt there should be provisions to address the greater uncertainty with respect to input costs (e.g. permitting, grid connection/expansion) that may come with longer lead time resources.

The IESO is open to working directly with parties seeking to develop long-lead time assets to better understand the specifics of their project development and input costs. If there are specific provisions stakeholders feel should be associated with long lead time resources, the IESO would welcome that feedback.

F) Revenue Model

Stakeholders had several questions and concerns regarding the proposed Enhanced PPA revenue model, particularly clarification on the model’s ability to mitigate perceived curtailment risk, and shape risk based on technology type. The IESO provided clarity to stakeholder concerns at the February 1, 2024 LT2 RFP engagement webinar and shared settlement scenarios for how the proposed Enhanced PPA revenue model will be applied to variable generation resources in the IESO’s renewed market. Specific feedback on the IESO’s proposed revenue model is summarized below.

Feedback / Common Themes	IESO Response
<p>The IESO should implement the proposed Enhanced PPA revenue model: some stakeholders were supportive of the proposed revenue model indicating that it would create greater competition.</p>	<p>The IESO appreciates the feedback. The Enhanced PPA model is intended to be an enduring model that will be used by the IESO in the LT2 RFP and future long-term procurements to incentivize competition, and work efficiently with the renewed markets to provide value for ratepayers.</p>
<p>The IESO should not implement the proposed Enhanced PPA revenue model: there were three common issues most stakeholders had with the proposed revenue model:</p> <ul style="list-style-type: none"> <p>Curtailment Risk: Most stakeholders indicated that the proposed model is inequitable as it would transfer curtailment risks that are unrelated to a facility’s ability to produce energy directly to the supplier.</p> 	<p>During the February 1, 2024 LT2 RFP engagement webinar, the IESO clarified perceived risks which stakeholders had identified for the Enhanced PPA and suggested mitigative actions based on stakeholder feedback. These are outlined below.</p> <p>Curtailment risk in the Enhanced PPA model will be borne by the IESO and does not need to be reflected by suppliers when submitting energy production factors. The Enhanced PPA model has been designed so that energy market revenues are not deemed when curtailments due to local congestion or global oversupply conditions are reflected in the day-ahead price. In instances where a facility is manually curtailed by the IESO, the facility will receive a make-whole payment to account for revenues it would have earned absent the curtailment. Examples of this are laid out in the February 1, 2024 LT2 RFP engagement webinar.</p>

- Proposed use of Day-Ahead (DA) Energy Price to Calculate Deemed Energy:** Many stakeholders indicated that a simple average DA price would likely result in wind projects being over-deemed and solar projects being under-deemed as the price would be representative of the market conditions and prices for when a generator is operating. Some stakeholders suggested that Real-Time (RT) average prices should be used to deem energy revenues while a few suggested that a weighted-average DA prices should be used.
- Day-Ahead to Real-Time Settlement Risk:** Many stakeholders indicated that renewables are incapable of mitigating two-settlement risk. In the DA timeframe renewables rely on forecasts of expected output that provide minimal certainty of actual injections, while in RT it is difficult to be price responsive as they don't have the ability to control when energy is produced. Stakeholders indicated that the proposed Enhanced PPA would be better suited for renewables that are part of a hybridized facility.

The IESO recognizes that variable generation resources do not have the ability to control the hours in which they produce and is considering an option that deems energy market revenues by using a monthly weighted-average price that only considers the hours which a facility was scheduled day-ahead instead of the previously proposed simple average day-ahead price.

At the February 1, 2024 LT2 RFP engagement webinar, the IESO the IESO provided a brief background on the ability of virtual traders to provide price convergence in the renewed market and presented two options to suppliers to help mitigate the risk. First, two-settlement risk can be reduced by variable generators electing to submit a conservative of their expected production into the Day-Ahead Market. Second, suppliers of variable generation facilities can reduce their exposure to energy market outcomes by submitting a lower production factor as part of their proposal. The IESO is also seeking feedback on an option it is evaluating that deems energy market revenues based on real-time prices and not those day-ahead.

The IESO should allow suppliers to submit more than one energy production factor: most stakeholders indicated that an annual production factor creates a disconnect between the hours of generation and the payment calculation as an annual factor is not granular enough to reflect actual injections of renewable resources which can vary month-to-month and through the day. A Stakeholder noted that while a single production factor make sense in the New York Energy Research and Development Authority (NYSERDA) model that has been developed for

The IESO is considering an approach based on stakeholder feedback that utilizes monthly energy production factors, that collectively average out to the annual energy production factor, to deem market revenues. This approach allows non-emitting resources to reflect the month-to-month variations in their injections so that their deemed energy market revenues may be more closely aligned with their actual energy market revenues. The IESO is seeking feedback on this approach and is

<p>offshore wind in New York, the varied output of wind and solar facilities month-to-month in Ontario will exacerbate risk to proponents.</p>	<p>open to other approaches that utilize more granular production factors.</p>
<p>Mirroring the NYSERDA revenue model introduces a significant risk of contract attrition to the IESO: a stakeholder cautioned that the revenue model that was implemented by NYSERDA that is being mirrored in the LT2 RFP creates a significant risk of contract attrition, where more than 90% of the NYSERDA projects that were awarded contracts in the last round of the RFP had abandoned their contracts. NYSERDA is now forced to allow the projects to rebid and is losing time and resources by having to run a secondary procurement.</p>	<p>The IESO’s main goal is to design a contract that supports the renewed market. As such, the IESO looked at other markets, including New York. There are a number of reasons as to why there were challenges with the latest procurements in New York. The IESO has made some key design changes to the NYSERDA model that change the risk profile for stakeholders and adapts the model to the unique considerations of the Ontario market.</p>
<p>Provide clarity on how the Enhanced PPA compares with traditional PPAs: stakeholders felt they required a deeper understanding of the enhanced revenue model mechanisms and implications, particularly how it compared to a traditional revenue model in terms of competitiveness and adaptability.</p>	<p>During the February 1, 2024 LT2 RFP engagement webinar, the IESO provided settlement examples for the proposed Enhanced PPA revenue model to demonstrate the model’s mechanics and implications with respect to competitiveness and adaptability. Stakeholders that require further explanation are encouraged to contact the IESO at engagement@ieso.ca.</p>
<p>Provide clarity on whether the Enhanced PPA revenue model favours specific technology types: many stakeholders questioned if the IESO’s proposed model favoured any specific technology type and a few stakeholders requested that analysis should be done.</p>	<p>The Enhanced PPA model is intended to be technology agnostic and the IESO is considering feedback with regards to providing the optionality to deem based on a weighted average price that is calculated using the hours in which a resource is scheduled in the DAM. In this instance, the timing, frequency and amount of deemed energy market revenues will be unique to each resource and will be directly proportional to the profile of a resource’s actual injections.</p>
<p>The IESO’s untested renewed market with locational marginal prices provides uncertainty for suppliers: Stakeholders felt that with no pricing history of Day-Ahead</p>	<p>The IESO acknowledges that the renewed market is yet to be implemented in Ontario, but the core components have been in operation</p>

Locational Marginal Prices (DA-LMPs), it would be challenging to predict what LMPs would be – and even harder to forecast what the impact of adding wind and solar to a node would do.

in other jurisdictions over many years. As illustrated in the February 1, 2024 LT2 RFP engagement webinar the revenue model sufficiently protects resources if market prices are lower than expected, as this will be reflected in deemed energy revenues, resulting in a higher Grid Reliability Payment (GRP). The IESO encourages stakeholders to visit the [IESO’s market renewal homepage](#) to learn more about different design aspects of the renewed market, including how locational marginal prices will be developed.

G) General Comments/Feedback

Stakeholder feedback submissions included additional comments for consideration. These comments are outlined below.

Feedback	IESO Response
<p>The IESO and provincial government need to work with local municipalities to ensure communities understand the value and importance of new generation projects. Early consultation, training and information from the IESO will help communities feel more confident in making decisions on project proposals.</p>	<p>The IESO recognizes the importance of fostering close community engagement as the province and stakeholders work together to meet system reliability needs. A tailored webinar was held for both municipal and Indigenous communities on January 17, 2024 and the IESO will continue with targeted outreach and will provide additional opportunities for municipalities and Indigenous communities to comment as the LT2 RFP design develops. The IESO will also incorporate feedback from Indigenous communities and municipalities in the LT2 RFP design.</p>

Feedback	IESO Response
<p>The IESO should provide clarity on Crown Land access use policies as early as possible with stakeholders to support project siting decisions. Alignment of policies and processes between the IESO and ministries is important to ensure that any crown land which becomes available does so within the IESO’s procurement timelines.</p>	<p>The IESO has engaged with the government on the process to site projects on Crown land. To provide further clarity, the Ministry of Natural Resources and Forestry (MNR) will present at our next webinar on February 9, 2024.</p>
<p>The IESO should clarify who will own the environmental attributes (e.g. Clean Energy Credits) of any clean energy produced under contracts resulting from the LT2 RFP. If the IESO were to own the credits, would the proceeds from the sale of credits be dedicated to the Future Clean Electricity Fund?</p>	<p>The IESO is currently considering that any environmental attributes produced under contracts resulting from the LT2 RFP will be owned by suppliers and not the IESO. The IESO is open to suggestions and encourages stakeholders to provide feedback on who should own environmental attributes, particularly the scale of financial benefit that ratepayers would realize by enabling suppliers to own and monetize environmental attributes.</p>