Feedback Form

Long-Term 2 (LT2) RFP – February 15, 2024

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. If you wish to provide confidential feedback, please mark "Confidential".

Following the LT2 RFP February 1, 2024, 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 engagement@ieso.ca by February 15, 2024.

Revenue Model

Topic	Feedback
Do you have any additional comments regarding the revenue model, particularly with regards to the following: Deeming energy market revenues based on real-time locational marginal prices (LMP), as opposed to the IESO's recommendation of basing this on the day-ahead LMP. (Slides 19-21) • The optionality of using either a simple average day-ahead price or weighted average LMP, with the latter including hours where the resource was scheduled day-ahead in a given month. (Slides 22-23) • Including monthly production factors that on average equate to the annual production factor, in order to further account for seasonality. (Slides 24-26)	Energy Storage Canada appreciates the IESO's efforts to further clarify the Enhanced PPA revenue model, as well as introducing possible changes to help mitigate the potential unmanageable risk of the initial design. Energy storage resources can offer firming and physical market participation adjustments to maximize upside and minimize downside. That being said, the use of a simple average day-ahead price LMP in a decarbonized future under the deeming day-ahead energy market revenue mechanism exposes hybrid facilities (i.e., renewable generation + energy storage resources) to significant risk and is viewed by ESC members as a potential obstacle to securing to finance and/or attracting investment. In general, energy storage resources in a hybrid arrangement can optimize real-time energy injection as part of market participation. By focusing on real-time energy markets, the energy storage resource operation is optimized to consume during low price hours or shift to injection during high price periods. The coordination between the renewable generation resource output, market obligations and energy storage operation are best optimized throughout real-time and reactive to actual system needs. By mandating participation in the day-ahead market, the complexity of operation becomes onerous for hybrid facilities and can result in unforeseen and costly outcomes for proponents and Ontario ratepayers. ESC recommends the IESO move away from the day-ahead deeming structure and shift to a real-time deeming structure using a shaped deeming mechanism for each resource time (e.g., wind or solar). Under this structure, the hybrid facility would be motivated to inject when real-time prices are high and withhold energy when real-time prices are low. A real-time shape would guide hybrid facilities to deliver energy when expected and only pursue alternative production when market price signals or alternative opportunities present themselves thereby reducing the risk of higher costs for IESO through the LT2 procurement process.

DERs

Topic	Feedback
Do you have any comments regarding eligibility requirements for DERs of other general comments?	ESC strongly supports the eligibility of DERs in the LT2. ESC is concerned that the IESO and LDCs will not be fully prepared for full DER market participation, particularly hybrid facilities that can maximize market participation and distribution system service offerings. In particular, ESC believes that more effort should be taken to prioritize supporting LDCs in rate making and regulatory proceedings before the Ontario Energy Board (OEB), to ensure the appropriate investments are made by LDCs to enhance their visibility, communication, and operations to allow DER market participants to fully partake in real-time markets. This includes the ability of LDCs to share system constraints that could impact DERs ability to meet IESO schedule and dispatch instructions. The changes to LDC systems are required for IESO market participation and therefore the IESO should take the lead role in justifying the LDC system investments in front of the OEB, similar to the IESO support of regional and bulk system investments for the Ontario transmission system.

Capacity Resources

Topic	Feedback
Do you have any comments regarding considerations for acquiring additional capacity resources, and utilizing a multi-stream approach (energy and capacity streams)?	ESC continues to advocate for expanded capacity procurement of energy storage resources, particularly considering the challenges experienced in LT1 procuring new gas-fired generation in Ontario. As demonstrated by participation in E-LT and LT1 procurements, there is significant resource potential for energy storage in Ontario. To address the ongoing capacity gap, ESC recommends that the IESO establish firm capacity targets as part of LT2, whether through a carve-out or some prioritization within the LT2 procurement. In addition to LT2 capacity targets, the IESO approach to cadence procurements would benefit from expansion to include capacity resources on a regular basis. There are many options the IESO should consider and explore with stakeholders including the potential of changing the MT procurements into capacity procurements following each LT procurement, or ensuring there is appropriate capacity resources procured as part of each LT procurement. To maximize the potential for capacity resources from hybrid facilities, ESC recommends the IESO accelerate activities as part of the Enabling Resources engagement to establish an operating hybrid participation model as part of MRP implementation and seek to move towards a permanent participation model that proponents can rely on when preparing proposals for LT and MT (or other capacity resource) procurements.

LT2 Deliverability

Topic	Feedback
Do you have any comments on early deliverability data and evaluation stage deliverability?	ESC members appreciate the additional information proposed by the IESO in support of Deliverability Evaluation, particularly the proposal to provide deliverability of potential zones through capacity limits and short circuit limitations. ESC strongly recommends that the IESO also manage deliverability concerns through procurement amounts, locational targeting, and system upgrade information. In particular, hybrid facilities can manage future congestion costs for the IESO, as well as address many different power system quality issues (e.g., offer reactive power services in addition to active power injections). The IESO should publish transparent power system data including: - Thermal capacity of all bulk and regional transmission circuits - Historic hourly demand at all transmission stations - Historical hourly supply for all generation resources - Forecast of hourly demand at all transmission stations The IESO can establish confidential access through many services so that the information shared is kept only for system analysis. ESC would note that significant clarity is required by proponents to understand the Deliverability Assessment at bid submission. Any confusion or misunderstanding introduces significant risk to proponents at a point in time when changes are no longer able to be addressed.

Repowering

Topic	Feedback
Do you have any comments around repowering participation?	Repowering should include the ability for proponents to incorporate capacity resources through different timelines and in-service dates.

Long Lead-Time Resources

Topic	Feedback
Do you have any comments on enabling long-lead time resources?	Recently, ESC published their Long Duration Energy Storage (LDES) opportunity assessment for Ontario (https://www.energystoragecanada.org/s/Dunsky_ESC-LDES-Report_dist.pdf). Similar to other long-lead-time resources, ESC strongly recommends that the IESO establish a separate long lead-time resource procurement for capacity resources that would leverage the findings of the LDES paper, and value the attributes of long duration storage resources. ESC supports the inclusion of LDES resources as part of the Long-Lead-Time Resource Stream. To ensure an even more competitive procurement for Long-Lead-Time Resources and to insure long-lead-time resources can capture interconnection capacity in Ontario, we propose the following recommendations: 1. Multi-Stream Approach for LLT Resources: The IESO should create a distinct category for LDES with a minimum storage duration as a long-lead-time resource. LDES should be defined as 8+ hours in duration to align with IESO market needs (e.g., as identified in the APO) and in recognition that 8+ hour storage duration provides significantly increased reliability as described by various system operators. LLT LDES could then either be evaluated in a distinct category for LLT capacity or evaluated concurrently in a category for energy and capacity. There are sufficient resources under development today that would support a competitive LLT procurement in the interest of Ontario ratepayers with a commercial operation date in the early to mid-2030s. The volume of the LLT procurement should be large enough to support the existing projects under development and upcoming projects utilizing emerging technologies (e.g., flow batteries, thermal heat storage) that will be available for deployment when long-lead-time resources would need to be online.

	2. Contract for LDES: The IESO should utilize the capacity-style LT1 contract structure for LDES to better reflect its value proposition and grid benefits. Long-lead-time LDES resources should receive a contract term of 40 years, to align with their technologies' significantly longer useful lives. The procurement timelines for LDES should be aligned with the IESO's LT2 RFP in terms of RFP launch and contract award dates. Furthermore, recognizing the Minister's January 9th letter to the IESO on prospective pumped hydro storage projects, these advanced projects should continue under the process outlined in the Minister's letter. Pumped storage is also particularly suited for high-volume daily energy cycling and as such may provide greater system value outside of an LT1 capacity-style contract.

General Comments/Feedback