

Feedback Form

Long Lead-Time RFP – June 5, 2025

Feedback Provided by:

Name: Shaheer Aziz

Title: Vice President, Business Development

Organization: Hydrostor Inc.

Email: [REDACTED]

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To promote transparency, feedback submitted will be posted on the LLT RFP engagement page unless otherwise requested by the sender.

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Yes – there is confidential information, do not post

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No – comfortable to publish to the IESO web page

Following the LLT RFP June 5, 2025, engagement webinar, the Independent Electricity System Operator (IESO) is seeking feedback from stakeholders on the items discussed. The presentation and recording can be accessed from the [LLT engagement web page](#).

Note: The IESO will accept additional materials where it may be required to support your rationale provided below. When sending additional materials please indicate if they are confidential.

Please submit feedback to engagement@ieso.ca by June 17, 2025.

Resource Eligibility and Rated Criteria

Hydro Resources - Redevelopments

Do you have any information to share in support of expanding eligibility to include hydro redevelopments, expansions or upgrades?

LDES Resources

Do you have any comments on the eligibility of LDES technologies?

We encourage stakeholders to submit recommendations on any other LDES technologies that you believe should be eligible along with supporting documentation (a) outlining why the suggested technology requires a long lead-time for development, and (b) demonstrating that it can operate reliably over the term of the LLT contract.

Hydrostor supports the IESO's proposal to include pumped storage and compressed air energy storage as eligible technologies. Additionally, Hydrostor supports the IESO working directly with other developers and technology providers to expand the list of eligible long-lead time LDES technologies. It is important that as eligibility is broadened, the MW target for the procurement is increased accordingly, so as not to discourage participation in the RFP amongst larger-scale resources and inadvertently increase overall costs of the initiative (recognizing that such a target would be a cap, as described in the response located in General Comments and Feedback section).

Storage Duration & Rated Criteria

Do you have any comments or information to share regarding storage duration or rated criteria that the IESO should consider when evaluating projects under the LLT RFP?

The IESO may want to consider increasing the duration requirement for LDES technologies to 10 or 12 hours to provide further reliability to the system, given that this is a longer lead time procurement. Many jurisdictions globally including California and New South Wales have increased their duration requirement to similar levels for projects coming into operation in the 2030s, particularly where such resources are long lead time, to ensure the system has the necessary flexibility for the future. Additional contractual changes to the LT2 contract will be required to accommodate this increased duration requirement.

RFP Design Considerations

Proposal & Completion and Performance Security

Do you have comments on the proposed approach and security amounts?

A total Proposal Security of \$35,000/MW up to a maximum of \$15 million may deter participation of Long Lead Time projects in the IESO's process. LLT projects have longer development horizons and exhibit greater development risks and costs than traditional generation or renewables. Having a large proposal security due at the time of proposal submission will disincentivize project participation at a time when the Province requires dispatchable long-duration capacity. The IESO should consider reducing the overall Proposal Security amount – for example, in Australia, Australian Energy Market

Operator (AEMO) Services required a maximum of AUD \$4,000/MW¹ during bid submission and increasing to AUD \$20,000/MW² once a contract is awarded. In New York, NYSEERDA does not require any Security until contract award, at which point the security is USD \$20,000/MW.³

If the total Proposal Security were to be as high as \$35,000/MW, then the IESO would need to further update its phased approach. In this case Hydrostor strongly recommends that the IESO (i) re-allocates the amount of the security due at each phase, and (ii) adds more intermittent phases due after Contract Award. As an example, the approach could be as follows:

- 10% of the proposal security to be posted at the time of proposal submission;
- 10% of proposal security at time of contract award;
- 30% of the proposal security to be posted 12 months from contract award; and
- 50% of the proposal security to be posted 24 months from contract award.

Without the Proposal Security broken into more milestones that align with Long Lead Time developers' risk profile, the Proposal Security, as currently stated, will deter development and participation in the LLT RFP. The IESO should also consider providing proposal security refundability in specific cases.

Interdependent Hydro Facilities (Energy Only)

Do you have any comments or additional information to share with the IESO?

Specific project details may be shared in a separate document. Please include the following: list of individual facilities, including the capacity of each (in MW), that are looking to be considered under a single proposal, proposed project location/related river systems; and any other information you think would be helpful

Deliverability

Do you have any information to share to support the IESO in determining the approach to offering a project specific consultation (or assessment)? Specifically, the IESO is interested in better understanding what information proponents require, and when this is needed, prior to submitting a proposal.

The IESO should provide a clear process for a project-specific consultation that results in the IESO identifying any challenges a proposed project may face with deliverability and identifying a pathway through the ongoing bulk studies or other processes to rectify the challenges. This process should consider the benefits provided by LDES technologies to the regional grid and the timeline available before Commercial Operation in a long-lead process to rectify any system challenges and to capture the benefits of the proposed project. Furthermore, to keep initial proposal security at reasonable levels given the LLT nature of the procurement, the IESO should ensure that it receives necessary

¹ <https://aemoservices.com.au/tenders/-/media/4d5d90ede3b2485cb85591e50e6f8903.ashx?la=en>

² <https://aemoservices.com.au/tenders/-/media/193974e0b54e46079f8a5d34e8c96cc9.ashx?la=en>

³ <https://portal.nyserda.ny.gov/servlet/servlet.FileDownload?file=00Pcr00000Jo4P2EAJ>

information from the seller on the expected development pathway and how risks are being managed. There are significant examples of such procurement evaluation in other jurisdictions that have focused on LLT resources including LDES such as Australia and California.

Long-Term Outages

Do you have any comments on the proposed approach to allowing suppliers to take one long-term outage for major maintenance activities during the contract term?

Specific details may also be shared in a separate document outlining the following: the nature of the work required as part of the long-term outage; the maximum duration of the outage (e.g., 6 months); and when the outage is expected to occur over the course of the contract term (e.g., year 20).

Contract Price Escalation

Do you have feedback for the IESO to consider when establishing the contract price escalation for contracted long lead time resources?

General Comments/Feedback

Please include any other feedback that you think may be relevant to inform the IESO's report back to the Minister of Energy and Mines.

Procurement size:

Hydrostor strongly recommends the IESO reconsider its anticipated procurement targets for LLT capacity limited to 600 MW. Hydrostor recommends instead that the IESO increase the LLT Capacity procurement target to at least 1,000 MW. A larger procurement target would lead to better outcomes for the IESO, particularly to ensure and not discourage broader participation from proponents while maintaining the flexibility to underprocure if conditions warrant. More specifically, a larger procurement target would be beneficial for a number of reasons that include:

- **Supporting Ontario's Needs:** As per the 2025 Annual Planning Outlook (APO), summer capacity needs for Future Procurement and Program Required are between 2-4 GW in the 2030s. Any additional procurement capacity through Long-Lead Time stream would help support the Province in supporting this need in a low-cost manner.
- **Enhanced procurement participation:** A larger procurement will send a strong signal to the market that Ontario is serious about LDES procurement. Developers that may not have been assessing this procurement initially would reconsider. This would enhance procurement participation and competition, leading to better and lower cost outcomes for the IESO. A lower target may discourage participation by larger-scale resources, particularly if eligibility is broadened, whereas a higher target will provide flexibility to the IESO to procure less while maximizing participation.

- **More competitive pricing:** The most competitive LLT LDES resources will likely be those that are built at scale. When possible, a larger procurement would incentivize LLT proponents to bid more competitively while targeting more MWs.
- **Protection against resource attrition:** A larger procurement size would provide the IESO with greater contingency against resource attrition, especially given the long lead-time nature of this procurement and the expected involvement of many international LDES technologies. This is particularly important here given the potential for the LLT Capacity procurement targeting only 600 MW. A larger procurement would allow the IESO to contract with two large-scale projects, and provide IESO with a contingency against resource attrition should one of the large-scale projects not proceed to commercial operations.
- **Enhanced optionality to the IESO:** By setting a capacity target of 1,000+ MW, the IESO is enhancing its ability to procure with a more diverse mix of capacity resources to supply Ontario's long-term needs. Setting the capacity target at 600 MW may unnecessarily restrict the IESO's optionality – it is far easier to underprocure if warranted, than set too low a target that sends the wrong signal to the market.
- **No Downside:** In the event that some price bids from a larger LLT Capacity procurement are not competitive, the IESO is not obliged to procure the full 1,000+ MW. The IESO can then run a subsequent procurement for shorter lead time capacity to fill the additional capacity needs that will emerge in the mid-2030s.