

# Feedback Form

## Regional Electricity Planning in the Peterborough to Kingston Electrical Region – October 2, 2025

### Feedback Provided by:

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To promote transparency, feedback submitted will be posted on the Peterborough to Kingston Electrical Region [engagement webpage](#) unless otherwise requested by the sender.

Following the Peterborough to Kingston electricity planning engagement webinar held on Thursday September 11, 2025, the Independent Electricity System Operator (IESO) is seeking feedback on the draft electricity demand forecast scenarios and the proposed engagement plan. A copy of the presentation as well as the recorded webinar can be accessed from the [engagement web page](#).

Local considerations and feedback are a critical component to the development of an Integrated Regional Resource Plan (IRRP). As this phase of the IRRP provides opportunity to determine the electricity demand forecast scenarios and the engagement strategy in the region the IESO wants to hear from you.

**Please submit feedback to** [engagement@ieso.ca](mailto:engagement@ieso.ca) by **October 2, 2025**.

Topic	Feedback
<p>What additional information, if any, should be incorporated in the proposed scenarios?</p>	<p>We recommend explicitly incorporating long-duration, bulk-connected storage as an option in the Peterborough-to-Kingston scenarios, coordinated with the Eastern Ontario Bulk Plan, especially the Supply to Belleville study now in options analysis. We encourage the IESO to ensure that its scenarios explicitly model both long-duration storage and the supporting infrastructure (e.g., new transmission lines in the Lennox area), as both will play a critical role in meeting Eastern Ontario’s future needs. We believe it would be extremely valuable to include a portfolio where an 8+ hour, grid-scale resource located proximate to Lennox/Napanee–Belleville as part of your system modelling. We believe by doing so it can: (i) mitigate under-voltage and LMC constraints in Belleville under high load, (ii) defer/optimize station capacity upgrades at Napanee, Picton, Frontenac, and Cataragui, and (iii) improve restoration and contingency performance on corridors like P15C/Q6S. These transmission circuits form part of the Peterborough–Quinte West–Clarington corridor, which ties the Peterborough/Kingston/Belleville area into the 500 kV backbone at Clarington. These are key transmission “pipes” into the area; if one trips (Q6S), the others can overload. Quinte Energy Storage Centre (QESC), located near Napanee/Lennox, connects into the same eastern Ontario transmission corridor that includes P15C/Q6S. By charging during periods of high local electricity output (when flows south/east can congest or overload these lines), QESC can absorb excess energy and reduce line loading. By discharging during peak demand or contingencies (e.g., Q6S out of service), QESC can supply load locally, reducing stress on P15C and possibly other circuits. Lastly, we also support maintaining both Reference and High scenarios to stress-test storage siting and size against electrification growth signposts.</p>
<p>How can the proposed scenarios best capture the range and uncertainty of growth potential while informing near-term infrastructure investments?</p>	<p>To build a realistic picture of future electricity needs, the scenarios should continue to use both a Reference forecast (based on current, known growth) and a High Growth forecast (that accounts for faster electrification or major new industries). To make these scenarios meaningful, it’s important to link them to real-world signposts, such as whether local distribution companies see new housing or industrial load connecting, or whether electrification of</p>

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	<p>transportation and heating is happening faster than expected. This way, planners can recognize early warning signals that the system may need more support sooner. We also recommend that the IESO run coordinated scenarios with the Eastern Ontario Bulk Study that illustrates the value of the additional transmission reinforcements in the Lennox area, and how those lines will enable additional resources to connect. The bulk study outcomes will directly influence the role that long duration storage will enable in the Peterborough-Kingston area. Finally, the scenario results need to line up with the IRRP planning timelines, which should align with IESO procurement timelines (see answer to the question below). With needs and options being presented early and draft recommendations shortly after, there is an opportunity to ensure that credible options like storage are carried forward into those decisions.</p>
<p>What areas of concern or interest about electricity should be considered as part of the planning process?</p>	<p>The following areas of concern and interest should be considered in the planning process: (1) Belleville under-voltage / LMC and Ottawa FIO interactions: When the grid in Eastern Ontario is under stress, Belleville and Ottawa can face low voltage and limits on how much power can flow in. The Quinte Energy Storage Centre (QESC), located nearby at Napanee, can step in during these times by storing energy when demand is low and releasing it when demand spikes. QESC can provide peak shaving, contingency support, and fast voltage stability to reduce the severity and duration of these issues, thereby future-proofing the system against long-term growth and stress conditions; (2) Station capacity timing at Napanee, Picton, and Frontenac: These transformer stations are expected to reach their limits in the coming years. QESC can be factored into long-term planning as a future-proofing option. Once transmission reinforcements are in place, QESC can ease strain at these stations by covering peaks and supporting the system during outages. This will allow Hydro One and the IESO to right size future wires upgrades and build in additional resilience; (3) Restoration and operability on P15C/Q6S corridors: These transmission corridors sometimes become overloaded, especially when local electricity generation is high or during outages. Once transmission is built in the Lennox area, it further enables</p>

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	long-duration storage, allowing assets to absorb excess energy when supply is high and release it when needed most. This will improve restoration and system operability during contingencies, giving operators more flexibility and strengthening long-term reliability.
What information is important to provide throughout the engagement? Does the proposed Engagement Plan provide sufficient scope and opportunities for input? What other engagement activities or methods should be considered?	We appreciate the staged public webinars and written feedback loop. To make engagement meaningful it is important that the IESO explicitly share how the IRRP milestones will align with procurement timelines. As currently scheduled, the Eastern Ontario Bulk Plan will conclude in Q1 2026, and the Peterborough-to-Kingston IRRP will present needs and options in Q1 2026 with draft recommendations in Q2 2026. Procurement windows for long lead-time resources are expected to follow shortly after. For LLT LDES proponents such as the Quinte Energy Storage Centre, it is critical to know the procurement design and eligibility signals at least one to two quarters before procurement deadlines. We therefore recommend that the Engagement Plan be expanded to include 1: Clear publication of upcoming procurement timelines alongside planning milestones. 2: Explicit signposts on when regional/bulk recommendations will feed into procurement eligibility. 3: Additional engagement touchpoints (e.g., technical sessions or data releases) timed to occur before procurement windows, so proponents can provide input with confidence their solutions will be considered. This additional clarity will strengthen the value of stakeholder engagement and allow the IESO to build a better-sequenced investment roadmap for Eastern Ontario.

## General Comments/Feedback

Hydrostor supports the Peterborough-to-Kingston IRRP timelines and the Eastern Ontario Bulk coordination. We ask that long-duration storage be explicitly carried as a screened-in option for the Belleville/Lennox area with sensitivities on siting and duration. Hydrostor will continue providing technical input through Q1/Q2 2026 engagements as needs and as options are refined. Hydrostor appreciates the opportunity to provide input into the Peterborough-to-Kingston IRRP and its coordination with the Eastern Ontario Bulk Plan. The proposed Quinte Energy Storage Centre (QESC) is strategically located in Greater Napanee, proximate to Napanee TS and Lennox TS, both of which are critical nodes in the regional and bulk system. This siting enables QESC to directly relieve medium- to long-term station capacity needs at Napanee TS, provide system flexibility at Lennox TS on the 500 kV/230 kV backbone, and enhance deliverability toward Belleville TS, which faces under-

voltage and Load Meeting Capability challenges beginning in 2030. By integrating an 8+ hour, long-duration storage resource at this location, the QESC can provide multiple benefits across regional and bulk planning horizons, complementing wires reinforcements while advancing cost-effective storage solutions to strengthen reliability for Eastern Ontario.