Feedback Received and IESO Response

Peterborough to Kingston Electricity Planning Process Public Webinar #1: Forecasting – September 11, 2025

The IESO hosted a public webinar on September 11, 2025, for Peterborough to Kingston electrical region as part of its engagement to inform the development of a long-term electricity plan - the Integrated Regional Resource Plan (IRRP). During the webinar, the IESO provided an overview of the regional electricity planning process, shared the draft electricity demand forecasts, and draft engagement plan for input. The presentation materials and recorded webinar are available on the engagement webpage.

The IESO appreciates the input, which will be considered by the Technical Working Group[1] to develop the IRRP. Feedback was received from the following parties, and the full submission can be viewed on the engagement webpage:

- City of Belleville
- County of Northumberland
- Eastern Ontario Power
- Eastern Ontario Regional Network (EORN)
- Enertel AI Corporation
- Hydrostor Inc.
- Kingston Economic Development Corporation
- Lakefront Utility Services Inc.
- Lennox and Addington County
- Prince Edward County

[1] The Technical Working Group is lead by the IESO and consists of the LDCs in the region and the local transmitter (Hydro One Distribution, Elexicon Energy Inc., Utilities Kingston.)

The section below summarizes feedback received related to key developments, projects, and initiatives, as well as local issues and concerns that should be considered in the electricity planning for the Peterborough to Kingston electrical region.

Consideration for the Electricity Demand Forecast

Feedback / Common Themes	IESO Response
Confirm whether the following inputs have been included in the forecasts, specifically: • Lennox and Addington County shared that employment land availability / opportunities particularly in Napanee and Loyalist Township should be incorporated in the proposed scenarios. • Prince Edward County shared as regional planning is developed Ministerial Zoning Orders (MZOs) as they are released by the province should be considered. For example, the redevelopment of Base 31 in Prince Edward County which is expected to accommodate about 10,000 people and businesses and an anticipated MZO for the redevelopment of Picton Terminals. • The City of Belleville shared that as the proposed scenarios are developed they should consider housing and growth plans, major economic projects, employment and migration trends, electrification and climate policies, large industrial load signals, emerging technologies (EV charging, storage), and climate resiliency. • Kingston Economic Development Corporation shared that the proposed scenarios should consider growth in the City. This includes the projected population growth of 220,900 by year 2051, a household count of 92,200 by year 2051, 405 hectares of total employment lands to accommodate growth until 2051, the new Kingston Health Sciences Centre, and preparing business parks to accommodate	Thank you for sharing details regarding local projects and programs to be included in the forecast. To develop the draft demand forecasts, forecast data is provided by each of the local distribution companies in the Peterborough to Kingston electrical area to the IESO. Using the forecast data received, the IESO accounted for the impacts of existing demand side management programs, planned distributed generation and extreme weather conditions. To enable meaningful feedback during the process and decisions to be made, the IESO has recently posted the detailed methodology which contains inputs from the local distribution companies including Hydro One Distribution, Elexicon Energy Inc., and Utilities Kingston. By sharing this information, the IESO also aims to promote transparency and enable more purposeful community and stakeholder participation and input. Please click here for the draft Forecast Methodology. The IESO appreciates projects shared by Lennox and Addington County and Prince Edward County. The IESO shared these details with the Local Distribution Companies who confirmed that this these projects have been considered in the draft electricity demand forecast scenarios. The IESO thanks the City of Belleville for sharing their municipal plans for consideration and can confirm Elexicon and Hydro One are considering relevant municipal plans as part of

Feedback / Common Themes	IESO Response
qualified leads that could need between 10 to 90 MW of new electricity.	developing the draft electricity demand forecast scenarios. The IESO welcomes the projects shared by the Kingston Economic Development Corporation and is committed to continuing to engage to ensure upcoming projects are considered as the electricity demand forecast scenarios are finalized.
Provide more information regarding the forecast development and assumptions, specifically: • Eastern Ontario Power requested clarity regarding the load forecast methodology, how load forecasting has been standardized across LDCs, and how regional planning considers large loads such as Data Centres, non-wire solutions and DERs. • Enertel AI Corporation requested more details regarding the modelling approach, including the linear regression method, the period used for weather-normalized demand peaks, modelling errors, and the three-day weighted humidex calculation. • Eastern Ontario Regional Network recommended completing and sharing a comprehensive grid study covering capacity, generation, and constraints. As this work is underway incorporate public input and local needs and establish regional working groups to gain localized insights and growth data. Additionally, clearly identify grid limitations to guide timely infrastructure investments.	Thank you for requesting more information regarding the load forecast methodology, modeling approach, and a comprehensive grid study. The IESO strives to make information available throughout the development of IRRP to enable meaningful feedback during the process and decisions to be made. Generally, the IESO will provide a high-level summary of the load forecast through its first engagement webinar to solicit input, and the detailed methodologies are typically published with the final report. Based on feedback, the IESO advanced the publishing of the detailed methodology and load forecasts early in the process to enable more purposeful community and stakeholder participation and input. For details around the Forecast Methodology please click here. Additionally, data and information to be made available during IRRP development is outlined in the IESO Regional Planning Information and Data document. Thank you for inquiring as to how the draft electricity demand forecast scenarios accommodates for large loads. The IESO encourages municipalities, businesses and other community stakeholders to keep their local distribution company and the IESO informed of any new information about growth, energy priorities and projects to facilitate their incorporation into the electricity demand forecast scenarios. Thank you for requesting more information regarding how non-wires solutions are

Feedback / Common Themes	IESO Response
	incorporated into the regional planning process and for the recommendation of conducting a comprehensive grid study. Typically, as part of the regional planning process, once the forecast scenarios and needs have been finalized, the IESO will screen and evaluate wire and non-wire options, such as transmission-connected generation or storage, additional eDSM programs, distributed generation and demand response to meet the needs and consider reliability, cost, technical feasibility, maximizing the use of the existing electricity system (where economical), and community preferences. The IESO will present needs and options in upcoming engagement sessions and encourages all interested parties to attend and welcomes any feedback. As planning work advances, the IESO welcomes views and preferences of communities and stakeholders, which will be considered in the development of the plan.
Consider incorporating the following additional information in the proposed scenarios, specifically: • Enertel AI Corporation recommended incorporating explicit uncertainty and confidence intervals in the weather-normalized demand peak process used for long-term forecasts. • Hydrostor Inc. recommended including long-duration, bulk-connected storage in the Peterborough-to-Kingston scenarios, coordinated with the Eastern Ontario Bulk Plan. Additionally, maintaining both Reference and High scenarios to stress-test storage siting and sizing against electrification growth. Also, model storage and supporting infrastructure (e.g., transmission near Lennox) to address constraints, defer upgrades, and improve reliability.	Thank you for recommending incorporating weather in the long-term forecasts. As a part of developing the demand forecasts the IESO and Technical Working Group accounts for impacts of existing demand side management programs, planned distributed generation, and extreme weather conditions in the electricity demand forecasts. Thank you for recommending including long duration, bulk connected storage in the scenarios. Regional planning focuses on ensuring a reliable supply of electricity to the Peterborough to Kingston area by looking at the unique local needs of the region. It considers conservation, generation, transmission and distribution, and innovative resources to meet these needs. With this in mind, the proposed recommendation aligns more closely with Bulk Planning. The IESO can confirm that bulk transmission solutions to support major load

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	growth from economic development in Eastern Ontario s part of the scope of work for the Eastern Ontario Bulk Study. Thank you for recommending addressing constraints and improving reliability. Typically, as part of the regional planning process, once the forecast scenarios and needs have been finalized, the IESO will screen and evaluate wire and non-wire options, such as transmission-connected generation or storage, additional eDSM programs, distributed generation and demand response to meet the needs and consider reliability, cost, technical feasibility, maximizing the use of the existing electricity system (where economical), and community preferences. The IESO will present needs and options in upcoming engagement sessions and encourages all interested parties to attend.

Considerations for Scope and Planning Approach

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As regional planning progresses the following areas of concern should be considered, specifically: • The City of Belleville recommended the IESO considers reliability and capacity (station and transmission upgrades, replacing aging assets Cataraqui TS transformers), electrification impacts (EV adoption on peak demand, building electrification), and incorporate municipal housing assessments and inputs. • Hydrostor raised that the IESO should consider low voltage and power flow issues in Belleville and Ottawa, station capacity limits at Napanee, Picton, and Frontenac, transmission corridor overloads and under-voltage and load meeting capability	Thank you for recommending the IESO considers reliability, capacity, electrification impacts, and municipal housing plans. Typically, as a next step in the regional planning process, forecast scenarios, which includes electrification and input from municipalities, LDCs, and interested parties, are finalized. Then station capacity, supply capacity, and end of life asset replacement needs are determined. As a part of this process the supply capacity for Cataraqui TS is under review. Once the needs are identified the IESO will screen and evaluate wire and non-wire options, such as transmission-connected generation or storage, additional eDSM programs, distributed generation and demand response to meet the needs and consider reliability, cost, technical feasibility, maximizing the use of the existing electricity system (where economical), and community

challenges at Belleville TS starting in 2030 as areas of concern. To address these concerns they recommended that long-duration storage be explicitly carried as a screened-in option to leverage the proposed Quinte Energy Storage Centre (QESC) near Napanee. • The County of Northumberland raised that as severe weather impacts are a major issue for rural, farming, and business communities, the current 50% chance of exceeding weather peak is a concern as it seems too low. • Enertel AI Corporation raised that assessing the quality of the long-term demand forecast is a concern without adequate reporting of uncertainty, confidence intervals, or modelling.	preferences. The IESO will present needs and options in upcoming engagement sessions and encourages all interested parties to attend and welcomes any feedback. As planning work advances, the IESO welcomes views and preferences of communities and stakeholders, which will be considered in the development of the plan. Thank you for raising severe weather impacts as a major issue and for raising concerns regarding how weather peaking is considered in the development of the electricity demand forecast scenarios. The IESO recognizes that weather has a large influence on the demand for electricity. To clarify, the IESO forecasts to extreme weather conditions for peak demand; additionally, a high growth forecast is developed to capture uncertainty in demand growth. Thank you for raising this concern. The IESO strives to make information available throughout the development of IRRP to enable meaningful feedback during the process and decisions to be made. Generally, the IESO will provide a high-level summary of the load forecast through its first engagement webinar to solicit input, and the detailed methodologies are typically published with the final report. Based on feedback, the IESO advanced the publishing of the detailed methodology and load forecasts early in the process to enable more purposeful community and stakeholder participation and input. For details around the Forecast Methodology please click here. Additionally, data and information to be made available during IRRP development is outlined in the IESO Regional Planning Information and Data document
Consider the following recommendations for capturing the range of uncertainty of growth, specifically:	Thank you for your recommendations regarding capturing the range of uncertainty of growth as the draft electricity forecast scenarios are finalized.

• Lakefront Utility Services Inc. recommended looking at trends associated with the purchase of Electric Vehicles. • The City of Belleville recommended using clear signposts (e.g., EV registrations, housing permits, industrial projects) to adjust scenarios, stage investments with a modular approach—short-term flexible upgrades and medium-term scalable solutions—and align with local plans and federal/provincial electrification targets. • Hydrostor Inc. recommended using both Reference and High Growth forecasts linked to real-world signposts (e.g., housing, industrial load, electrification trends). Additionally, to coordinate scenarios with the Eastern Ontario Bulk Study to show transmission and storage value, align scenario results with IRRP and procurement timelines, and ensure credible options like storage are carried forward.	To meet the region's needs, the Technical Working Group developed two forecast scenarios. A Reference Scenario which includes current and planned loads and organic growth and a High Scenario that incorporates potential demand growth that is less certain, in terms of timelines, magnitude, and location. These two scenarios allow for rigorous technical studies to be conducted to determine needs that would arise on the system in each case, develop a range of options, and prepare recommendations as part of the final plan to ensure a reliable and adequate supply of electricity to the region. By planning against two scenarios, this allows quicker action in the future if, and when, higher growth materializes. The reference forecast will drive firm near- and mid-term recommendations to address needs identified in the 5 to 10-year timeframe. This means that specific actions will be recommended to address a specified need and given year, based on the reference forecast. This will enable demand growth in a timely manner while minimizing ratepayer risks associated with overbuilding or building too early. The high forecast scenario will be considered to test the robustness of the plan, identify signposts to monitor forecast changes, and contemplate additional actions required if higher demand growth materializes.

Considerations for Engagement

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Upon reviewing the engagement plan receptive feedback was received, specifically: • Lakefront Utility Services Inc. recognized the proposed engagement plan as sufficient and appreciated the information shared in the presentation and the work conducted by the IESO.	The IESO appreciates interested parties taking the time to participate in engagements and reviewing the proposed engagement plan. Thank you for expressing support for how the IESO engages with interested parties and provides opportunity for input. As regional planning continues the IESO is committed to continuing to engage with all

• Eastern Ontario Power welcomed the engagement plan and opportunity to provide input. • The Eastern Ontario Regional Network welcomed the engagement opportunities offered by the IESO and emphasized the importance of engaging residents, businesses, industries, and municipalities to develop a resilient and responsive system for the region.	interested parties in the Peterborough to Kingston electrical region on the development of this plan and the Technical Working Group will continue to welcome input and perspectives.

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In future engagements to better support municipalities, it is recommended to share more information, specifically: • The City of Belleville recommended sharing frequent and concise updates on demand forecast assumptions while explaining how feedback is considered and detailed analysis of system needs. At this stage It would also be beneficial for the IESO to outline how the options align with municipal and Indigenous plans, climate goals, and local development priorities and to provide a progress reports with rational for any decision making. • Eastern Ontario Regional Network recommended sharing clear, accessible information on emerging electricity technologies—such as energy storage and Small Modular Reactors (SMRs)—and their economic and environmental benefits. These resources would support municipal staff and elected officials in mitigating residential concerns and educating the public. Additionally, please provide more information to clarify the distinct roles and responsibilities of the IESO and Hydro One.	Thank you for providing recommendations regarding additional information that should be shared during upcoming engagements. The IESO will consider these recommendations as planning continues to advance. As planning work for the IRRP advances through each milestone the IESO will continue to host targeted engagements (such as with impacted municipalities) that typically include Hydro One and relevant LDCs. The IESO will also continue to host webinars which are accessible for everyone to attend. Hosting engagements at each milestone provides opportunities for interested parties to stay informed, share input and ask questions.
As regional planning progresses consider recommendations to expand the engagement plan, specifically: • The City of Belleville recommended continuous dialogue between webinars, offering technical workshops with deeper insights for relevant stakeholders, scenario planning sessions to validate assumptions, virtual Q&A sessions, and issuing regular newsletters to maintain engagement and transparency. • Enertel AI Corporation recommended offering the opportunity to provide technical input on modelling long term demand forecast uncertainties.	Thank you for providing recommendations to expand the current engagement plan. The IESO appreciates your input and will consider these recommendations as planning continues to advance. Thank you for emphasizing the importance of continuous dialogue throughout the development of the IRRP. As a part of the engagement process the IESO does strive to share regular updates regarding regional planning. To stay informed about electricity planning in the Peterborough to Kingston region as work progresses, please subscribe here for updates.

• The Eastern Ontario Regional Network recommended the IESO in collaboration with the LDCs host in-person sessions targeted at businesses and industrial stakeholders who are key to understanding and planning for regional electricity needs. It is also recommended the IESO offer more accessible and plain language resources to foster a two-way dialogue. • Hydrostor Inc. recommended that the Engagement Plan be expanded to include clear publication of upcoming procurement timelines alongside planning milestones and explicit signposts on when regional/bulk recommendations will feed into procurement eligibility. Additionally, 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.	Thank you for recommending targeted engagements with technical experts, and relevant stakeholders. As mentioned above as planning work for the IRRP advances through each milestone the IESO does typically host targeted engagements (such as with impacted municipalities). However, to foster transparency the IESO will continue to host publicly accessible webinars to ensure all interested parties stay informed, share input and ask questions. Hosting publicly accessible engagements aims to show how input helped shape the IRRP once finalized. Thank you for emphasizing the importance of integrating regional planning with upcoming procurements. As recommendations for the IRRP are finalized the IESO would seek to leverage existing procurements where possible.

General Comments/Feedback

Feedback / Common Themes	IESO Response
Lakefront Utilities Services Inc. recommended that the IESO ensure secondary distribution designs account for potential EV base loads when specifying conductors.	Thank you for your feedback regarding secondary distribution designs and potential EV base loads. The IESO does recognize the importance of EV adoption trends and incorporates them into the draft electricity demand forecast scenarios. These forecasts help guide planning decisions and ensure the system can meet evolving needs. However typically secondary distribution design falls under the responsibility of local distribution companies.
The County of Northumberland recommended the IESO shares information regarding maintenance and clean up activities post weather events.	Thank you for your feedback regarding maintenance and clean-up activities following weather events. The IESO appreciates the County's feedback, however, please note that maintenance and restoration activities after weather events are managed by local distribution companies (LDC) and transmitters. With this in mind, it is important to share this feedback with your LDC. Should the County need assistance connecting with the LDC please email enagagement@ieso.ca as the IESO is happy to provide further support.
The County of Northumberland raised concerns regarding brown outs and expressed that the current inconsistent power supply and lack of vegetation management compromises both the efficiency and safety of agricultural and business operations, ultimately leading to financial losses and reduced agricultural productivity.	Thank you for raising concerns regarding rolling brown outs. Typically, these are distribution level power outages (wood poles and wires). As the IESO oversees transmission system reliability for the broader provincial grid, it is important to keep your LDC informed of any power outages as they are responsible for distribution planning and restoring service. As mentioned above, should the County need assistance connecting with its LDC please email

enagagement@ieso.ca as the IESO is happy to provide further support.