Toronto Regional Plan – Information Package

The IESO has prepared a Toronto Regional Plan Information Package that contains all publicly available resources and data shared or referenced throughout the development of the Toronto Regional Plan. The information package is up to date as of September 25, 2025.

Regional Planning

- For more information on the IESO's regional planning process, please visit <u>here</u>.
- Dedicated <u>Toronto engagement webpage</u>, housing all engagement materials, feedback, IESO response to feedback, and public webinar registration details.
- A new <u>PoweringGTA.ca</u> website was developed to provide more details on the active regional plans across the GTA, including Toronto.

Policy, Regulatory and/or Related Reports

- <u>Pathways to Decarbonization Report (2022)</u> A report from the IESO to the Minister of Energy to evaluate a moratorium on new natural gas generation in Ontario and to develop a pathway to zero emissions in the electricity sector.
- To learn more about cost allocation for new/upgraded wires infrastructure, please visit the Ontario Energy Board cost responsibilities for <u>Transmission System Codes</u> and <u>Distribution System Codes</u>.
- OEB-IESO Joint Study of Distributed Energy Resources Incentives The OEB and the IESO have jointly commissioned a study to better understand how financial incentives for DERs could function collectively and efficiently, so that they can be better designed and aligned going forward.
- Integrated Energy Plan ("<u>Energy for Generations</u>") from the Ministry of Energy and Mines includes policy direction that reflects a coordinated and long-term approach to ensure Ontario has access to reliable and affordable energy.

Toronto Regional Plan - Scoping Assessment

• <u>Hydro One Needs Assessment</u> was posted publicly identifying the needs in the region and a recommendation if further regional coordination was required.



- <u>Draft Toronto Scoping Assessment Outcome Report</u> prepared by the IESO outlining the nature and timing of regional needs, and the draft recommendation to proceed with an Integrated Regional Resource Plan (IRRP) for Toronto.
- <u>Public Webinar</u> on Scoping Assessment Outcomes. Recorded webinar and discussion can be viewed <u>here</u>. Written feedback post-webinar was invited.
- IESO received feedback on draft Scoping Assessment Outcome Report from interested parties and publicly shared <u>Response to Feedback</u> and <u>Response to</u> Supplementary Feedback
- <u>Final Toronto Scoping Assessment Outcome Report</u> considering Indigenous community and stakeholder feedback and further refinements from the Technical Working Group, the decision was made to proceed with a Toronto IRRP.

Toronto IRRP - Demand Forecast Development

- <u>Draft Toronto Engagement Plan</u> IRRP officially launches, and a draft Engagement Plan is shared with stakeholders for comment to ensure plan meets stakeholder expectations for engagement.
- <u>Public Webinar on Draft Regional Demand Forecasts</u>. Record webinar and discussion can be viewed here. Written feedback post-webinar was invited.
- <u>IESO Regional Planning Information and Data Release Guideline</u> outlining the IESO's approach to publicly sharing data and information to enable meaningful engagement
- The IESO shared the <u>IRRP Forecasting Methodology</u>. The Local Distribution Company
 within the Technical Working Group develop a peak demand forecast using their
 methodology. The IESO, with input from the TWG, then develops the forecast
 methodology for the regional plan. For the Toronto Plan, a Reference forecast
 scenario and a high electrification scenario were developed for the plan.
- Additional forecasting resources were shared:
 - Data Table 1 Summer/winter demand by station
 - <u>Data Table 2</u> Forecasted demand savings from energy efficiency programs and, codes and standards. Including, a breakdown of existing and forecasted DERs in the City of Toronto by resource type and station
 - <u>Data Table 3</u> Forecasted demand by electrification measures (EV, electric heating, data centres and other connection requests)
 - <u>IESO Regional Planning Information and Data Release Guidelines</u> Guidelines on the IESO's approach to publicly sharing available information during the regional planning process
- IESO received feedback from many stakeholders representing diverse interests. The IESO posted its <u>Response to Feedback</u>

Toronto IRRP - Electricity Needs

- <u>Public Webinar on Draft Electricity Needs.</u> Recorded webinar and discussion can be viewed <u>here</u>. Written feedback post-webinar was invited. Electricity needs were identified based on the reference and high electrification scenarios.
- The public webinar introduced the Local Achievable Potential Study that was initiated to support the Toronto IRRP by identifying and quantifying the energy savings potential from incremental electricity demand side management programming, distributed energy resources, and demand response programming. The IESO shared the Local Achievable Potential Study Technical Approach document to provide an overview of the methodology and data sources to calculate the technical, economic, and achievable potential.
- In response to stakeholder interest to better understand the methodology and modelling results for the avoided generation energy and capacity cost inputs for the LAPS' economic analysis, the IESO shared an <u>Avoided Cost – Marginal Resource Data</u> file. This is supplementary to the 2024 Annual Planning Outlook <u>Avoided Cost</u> file.
- The IESO received feedback from many stakeholders representing diverse perspectives. The IESO posted its <u>Response to Feedback</u>.

Toronto IRRP - Options Screening

- <u>Public Webinar on Options Screening</u>. Recorded webinar and discussion can be viewed <u>here</u>. Written feedback post-webinar was invited. Options screening milestone shared what option types were screened-in or screened-out to meet the nature and timing of Toronto's electricity needs using screening criteria.
- IESO received feedback from many stakeholders representing diverse interests. The IESO posted its Response to Feedback.
- Integrated Regional Resource Plans: Guide to Assessing Non-Wires Alternatives (May 2023). This guide summarizes various recent improvements made to better consider NWAs when developing an IRRP, including the process flow diagram, screening mechanism, hourly needs characterization, development of options, and economic evaluation methodology.
- Assumptions and additional information underpinning options screening:
 - The IESO used the National Renewable Energy Laboratories (NREL) Annual Technology Baseline (ATB) Workbook as its benchmark for nuclear, wind, solar, and battery costs in the <u>2024 Annual Planning Outlook</u>.
- Industry standard assumptions for land use requirements:
 - National Renewable Energy Laboratory's (NREL) Technical Report on the Land-Use Requirements of Modern Wind Power Plants in the United States
 - Land-use requirements for solar PV are 3.04 hectares/MW

 Land-Use requirements for battery energy storage systems are based on a local battery project under development

Toronto - IRRP Options Analysis and Draft Recommendations

- <u>Public webinar on Options Analysis and Draft Recommendations</u>. Recorded webinar and discussion can be viewed <u>here</u>. Written feedback post webinar will be posted to the Toronto engagement website.
- For each impacted infrastructure within the options analysis, the IESO shared in advance of the webinar the <u>Hourly Needs Data Profiles</u>.
- Final Toronto Integrated Regional Resource Plan, to be published on October 31, 2025 to the <u>Toronto engagement website</u>.

Toronto Local Achievable Potential Study (L-APS)

- <u>Public Webinar on the Draft Findings Local Achievable Potential Study</u>. Recorded webinar and discussion can be viewed <u>here</u>. The draft findings were used to inform the potential energy savings for incremental eDSM (including energy efficiency, demand response, and behind-the-meter DER) within the IRRP options analysis.
- The IESO shared the <u>Draft Report Local Achievable Potential Study</u>. Additional data sets and information were shared, including:
 - o Residential Measure Characterization
 - o Commercial Measure Characterization
 - o <u>Industrial Measure Characterization</u>
 - Additional Modelling Inputs
 - o Draft Technical, Economic, and Achievable Potential Data Tables
- The IESO received feedback from many stakeholders representing diverse perspectives. The IESO will post its Response to Feedback to the <u>Toronto</u> <u>engagement website</u>.
- To address earlier feedback on the inclusion of vehicle to grid technology in the L-APS, the IESO posted a <u>Memorandum on Consideration on Bidirectional Charging in Non-Wires Analysis</u> to provide more information and rationale on the decision to exclude vehicle to grid/building measures from the L-APS.
- Final Local Achievable Potential Study, published in Q4 2025.

Non-Wires Options – Additional Resources

 As part of the regional planning process, implementation mechanisms for non-wire solutions for new resources will be determined following the IRRP's publication. The following mechanisms may be leveraged:

- Electricity Demand Side Management Framework a \$10.9 billion, 12-year funding commitment from the Ontario government beginning January 2025. In addition to achieving energy savings, the new framework is designed to promote the use of electricity to improve energy affordability, expand customer choice and reduce emissions in Ontario, while minimizing impacts to the electricity system. Incremental eDSM will be offered through this framework.
 - Customers can participate in the IESO's Save on Energy programming for opportunities to save electricity in energy efficiency and demand response programs, including the new commercial solar PV and residential solar and solar-plus-storage incentives. Learn more at <u>Save</u> on <u>Energy</u>.
- Battery energy storage systems and distributed energy resources DERs could be implemented through IESO procurements or other implementation paths to be determined in collaboration with local distributors.

Wire Options – Additional Resources

 Once wire recommendations are final (with the exception of the Third Line recommendation), Hydro One will lead the development of a Regional Infrastructure Plan, which assesses and develops a detailed plan on how wire options can be implemented. All projects will be required to comply with federal, provincial and municipal approvals, permits or requirements, including an Environmental Assessment, if applicable.