

# Memorandum

**To:** Strategic Advisory Committee

**From:** Beverly Nollert, Director, Transmission Planning

**Date:** October 2, 2024

**Re:** IESO Business Update – Transmission Planning’s Powering Ontario’s Growth Activities

The following provides an update to members of the Strategic Advisory Committee (SAC) on IESO’s Transmission Planning Activities that are part of Powering Ontario’s Growth Plan (the “Plan”). Collectively, this work is expected to identify new transmission investments that will enable demand growth and a clean economy and support key policy objectives such as enhancing exports from Ontario.

## **Summary**

As part of Powering Ontario’s Growth Plan, the Minister asked the IESO to undertake several initiatives to support the Plan. This includes requests to develop transmission reinforcement options and recommendations to:

- Address bottlenecks within the Greater Toronto Area (GTA), to support future growth and potential changes to the supply resource fleet;
- Unlock new opportunities for growth in Northern Ontario and enable the connection of renewable generation;
- Accommodate small modular reactors at the Darlington site; and
- Accommodate a new nuclear generating station at the Bruce C site.

Further, in support of preserving or advancing these options and recommendations, identify new and existing corridors of land that should be protected.

IESO Transmission Planning is executing this work through its existing bulk and regional planning processes. Specifically, two bulk transmission plans have been initiated in 2024 to enable planned new nuclear generation, renewable resources, economic development and electrification. These plans include the South and Central Ontario Bulk Study and the Northern Ontario Bulk Study. Two ongoing regional plans are being leveraged to consider the local impacts of the eventual decommissioning of natural gas fired generation on the overall area's needs. These plans are the Toronto and York regional plans.

The bulk and regional plans are expected to be complete by Q3 2025. The IESO will provide an update on this work to the Minister in December 2024 by way of a report back.

### **South and Central Ontario Bulk Study**

The South and Central Bulk Plan will identify the transmission needed to:

- Enable the proposed expansion of the Bruce nuclear generation station;
- Expand the 500 kV system into the eastern GTA to enable future generation connection in the east (including the Darlington small modular reactor project) and support load growth in the GTA; and,
- Ensure the sufficiency of the GTA system and the Windsor to Hamilton corridor to support economic development (e.g., industrial developments and data centres) and electrification and improve deliverability for future resource options.

The IESO has hosted public and Indigenous community engagement webinars to describe the objectives, scope and timelines of the South and Central Ontario Bulk Study. As a next step, the IESO will perform a detailed review of needs and options, with associated engagement activities, that will culminate in plan recommendations in Q3 2025. Further updates and engagement opportunities are available at: [South and Central Bulk Planning \(ieso.ca\)](https://ieso.ca/south-and-central-bulk-planning).

### **Northern Ontario Bulk Study**

The Northern Ontario Bulk Plan will identify the transmission needed to expand the capability of the existing transmission between northern and southern Ontario to address existing constraints on economic growth in the north and to also improve the ability to connect non-emitting resources in Northern Ontario.

The IESO has hosted public and Indigenous community engagement webinars to describe the objectives, scope and timelines of the Northern Ontario Bulk Study, and to review preliminary needs. As a next step, the IESO will perform a detailed review of options that will culminate in plan recommendations in Q3 2025. Further updates and engagement opportunities are available at: [Northern Ontario Bulk Planning \(ieso.ca\)](https://www.ieso.ca/en/About-IESO/Projects-and-Programs/Northern-Ontario-Bulk-Planning).

### **Toronto and York Regional Plans**

The Toronto and York Regional Plans will evaluate the options (both wires and non-wires alternatives) to maintain a reliable supply of electricity to the Toronto and York regions over the next 20 years when considering the needs in the regions. The needs include the local impacts driven by the eventual decommissioning of natural gas fired generation within these regions. The IESO has hosted a public engagement webinar to gather input on the demand forecast and methodology for the Toronto region and is currently studying the electricity system needs. The demand forecast for York Region is currently under development. Further updates and engagement opportunities are available at: [Regional Electricity Planning - Toronto \(ieso.ca\)](https://www.ieso.ca/en/About-IESO/Projects-and-Programs/Regional-Electricity-Planning-Toronto) and [Regional Electricity Planning - York Region 2023 \(ieso.ca\)](https://www.ieso.ca/en/About-IESO/Projects-and-Programs/Regional-Electricity-Planning-York-Region-2023).

### **Other Bulk Plans**

IESO Transmission Planning has also initiated the Eastern Ontario Bulk Study which has been undertaken to:

- Enable more resources in Eastern Ontario;
- Ensure the sufficiency of the electricity systems supplying Belleville, Bay of Quinte, Kingston, and Ottawa to support economic development and electrification; and
- Examine opportunities for expanded interties with Quebec and New York.

The objectives, scope and timing of this plan will be discussed in a public webinar in Q3. The plan is expected to be complete by the end of 2025. Further updates and engagement opportunities are available at: [Eastern Ontario Bulk Planning \(ieso.ca\)](https://www.ieso.ca/en/About-IESO/Projects-and-Programs/Eastern-Ontario-Bulk-Planning).