
Issue Spotlight: 2025 South and Central Bulk Transmission Study

The Independent Electricity System Operation (IESO) maintains Ontario's electricity transmission system. The IESO is studying transmission projects in four areas; Bruce, GTA, East of Toronto, and Windsor to Hamilton. Considering the concentration of projects, affected farmland owners are concerned about route impacts on their lands, warranting a review of project activities.

Why it matters:

The demand for rural and farmlands from industry, infrastructure and housing have major impacts on Ontario farm operations. Electrical infrastructure alone could consume a footprint of 1.5 to 2 million acres by 2050 according to the IESO¹. Most of the new capacity and assets will be decentralized in rural regions. The IESO's 2025 Annual Planning Outlook forecasts system-level net annual energy demand to grow 75 per cent by 2050.

OFA has worked with Hydro One, the principal transmission system developer, to advance Compensation Practices for their Land Agents and landowners to ensure farm operation concerns are considered through all stages of a potential project, from planning, through construction, operation and decommissioning.

OFA also has developed information for members to understand various types of land access agreements and expropriation processes (see OFA Resource links below).

Who is affected:

The proposed corridor projects impact farmers and rural property owners in Bruce, Huron, Simcoe, York and Durham counties. Once the IESO concludes four Bulk System Module Studies; Bruce, GTA, East of Toronto, and Windsor to Hamilton, more details about corridor route options will be available.

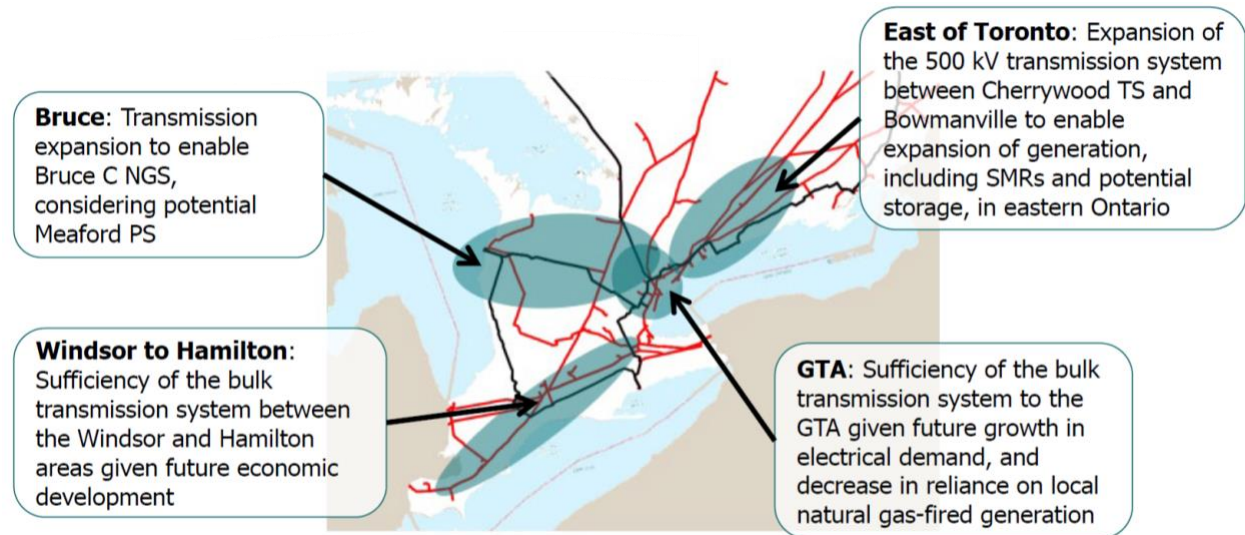
OFA positions – what you need to know:

While land acquisition consultants representing the various public authorities are directed to secure the property rights in a timely manner, they should also ensure that they act within the legislation designed to also protect the landowner and try to avoid expropriation of our valuable farmland resources.

OFA recommends impacted farmland owners thoroughly review materials provided by project proponent Land Agents. Have contracts reviewed by lawyers with expertise in land issues. See the Legal Services section at the end of this document for links to search the Ontario Bar Association and the Law Society of Ontario directories of legal services.

¹ IESO Pathways to Decarbonization Report to the Minister of Energy <https://www.ieso.ca/-/media/Files/IESO/Document-Library/gas-phase-out/Pathways-to-Decarbonization.pdf> adjusted down to consider the IESO 2025 Annual Planning Outlook <https://ieso.ca/-/media/Files/IESO/Document-Library/planning-forecasts/apo/2025/2025-Annual-Planning-Outlook.pdf>

Four Study Areas



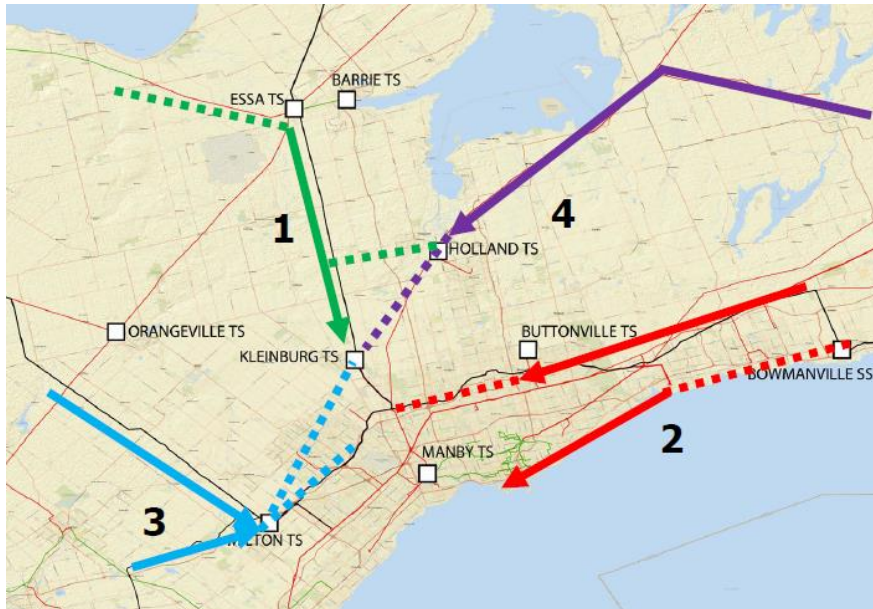
Source: IESO 2025 Bulk Planning Study <https://ieso.ca/-/media/Files/IESO/Document-Library/engage/bulk-planning/BP-20250529-presentation-part2.pdf>

East of Toronto Module



Bowmanville to Parkway: New 500kV double circuit (~65 km), corridor highlighted in grey on the map.

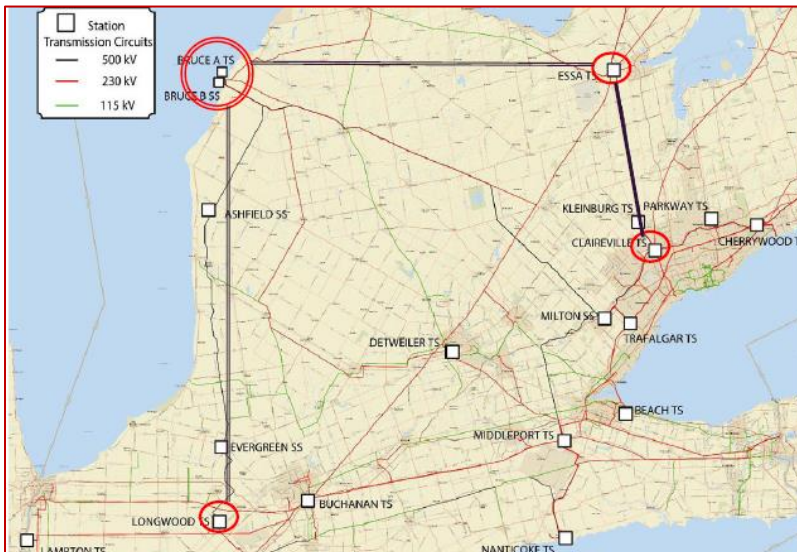
GTA Module



Transmission reinforcements examine possible new bulk routes into the GTA:

1. From north-west: Essa – Kleinburg (green)
2. From east: Parkway and/or underwater to Downtown (red)
3. From west: Milton (blue)
4. From north-east: North of Holland (purple)

Bruce Module



Transmission reinforcements to enable load growth and improve deliverability include:

- 500 kV double-circuit line between Bruce Cand Longwood (One may be bypassed to Lakeshore).
- 500 kV double-circuit line between Bruce Cand Essa/Kleinburg.
- 500 kV single-circuit line between Essa and Kleinburg.
- Connection into Kleinburg of the existing 500 kV lines from Essa to Claireville.

Windsor to Hamilton Module 1

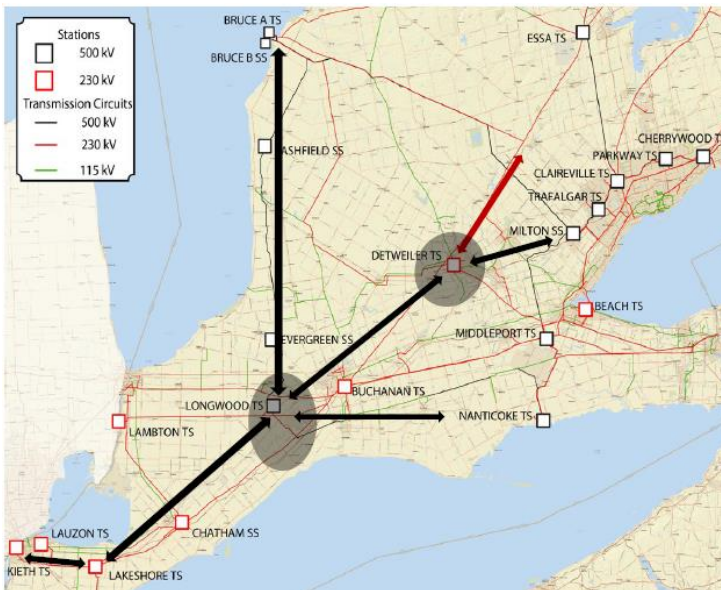


This may include additional bulk supply between:

- New Bruce generation source to the London Area (Longwood)
- London and Lakeshore, and possibly Windsor and further west
- London/Milton/Orangeville via Detweiler, for KWCG and provide alternate path to the GTA

Windsor to Hamilton Module 2

Options to supply growth in London and Kitchener/Waterloo/Cambridge/Guelph



(KWCG): • 500 kV supply to London region, via new Longwood to Nanticoke single-circuit line and St. Thomas station.

- 230 kV supply to London region, via reinforcement of the existing 230 kV corridors and stations.
- 500 kV to KWCG region, via new Detweiler to Milton single-circuit line and station in Kitchener or Waterloo.
- 230 kV supply to KWCG region, via reinforcement of 230 kV corridor between Detweiler and Orangeville.

Key Regulatory Stakeholder Organizations

- Ministry of the Energy: Oversees the regulatory framework for the electricity system, the Ontario Energy Board (OEB), and the Independent Electricity System Operator (IESO).
- MECP: Legislative authority for environmental assessments in Ontario.

- Hydro One: Builds, owns, operates and maintains transmission and distribution facilities.
- IESO: Oversees planning to ensure electricity needs are met both now and in the future.
- OEB: Regulates the electricity market in Ontario, including electricity rates.

Next Steps:

OFA continues to engage with our members, local federations, the IESO, the Ministry of Energy and the Ministry of Environment, Conservation, and Parks, and Hydro One to ensure the next steps are transparent, fair and ensure the viability and success of our members' farm businesses.

OFA resources

OFA's [Resource Library](#) has issues-based fact sheets, submissions and correspondence, webinars, resolutions, archives and additional information.

OFA Information on Easement and Right-of-Way Arrangements, and Expropriation:

- Feb 23, 2022 – [OFA Factsheet Land Easements and Acquisitions Under Infrastructure Projects \(rev. May 2025\)](#)
- May 9, 2024 - [OFA Factsheet Cropland out of production in a right-of-way, lease or easement agreement](#)
- April 4, 2024 - [OFA Webinar – Easements on Farm Properties](#)
- June 17, 2024 - [OFA Letter to Attorney General Downey re Expropriation Concerns](#)

OFA Correspondence

- January 17, 2024 - [OFA submission to the Independent Electricity System Operator regarding the long-term procurement plan to acquire energy and capacity to meet electricity needs](#)
- January 12, 2024 - [OFA submission to the Ministry of Energy regarding Pathways to Decarbonization Study](#)
- January 11, 2024 - [OFA submission regarding the evaluation of municipal class environmental assessment requirements for infrastructure projects](#)
- January 11, 2024 – [OFA submission regarding project list approach under the Environmental Assessment Act](#)
- July 31, 2023 – [OFA submission to Minister Clark regarding the Ministry of Municipal Affairs and Housing's proposed policies for an integrated province-wide land use Provincial Planning Statement \(ERO 019-6813\)](#)
- March 7, 2022 - [OFA submission to the Ministry of Energy regarding critical transmission infrastructure in Southwestern Ontario](#)
- August 18, 2021 [OFA letter to Hydro One Networks Inc. regarding the Draft Environmental Study Report](#)
- September 1, 2021 – [OFA submission to the Ministry of the Environment, Conservation and Parks regarding transmission lines \(ERO 019-3917\)](#)
- September 7, 2021 - [OFA submission to MECP regarding transmission lines](#)

- May 4, 2020 - OFA submission regarding earlier access to land to conduct preliminary environmental studies for electricity transmission projects
- May 4, 2020 - OFA submission regarding electricity transmission corridor for Halton, Peel, York regions

Legal Services

Please research these options to see who best suits your specific needs.

The Law Society of Ontario (LSO) <https://lso.ca/home>

LSO Legal And Paralegal Directory <https://lso.ca/public-resources/finding-a-lawyer-or-paralegal/lawyer-and-paralegal-directory>

The Ontario Bar Association Find-A-Lawyer Search <https://oba.org/public/legal-resources/>

Hydro One Contacts:

Hydro One Community Relations Telephone: 1-877-345-6799

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For more information:

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