Welcome

Longwood to Lakeshore Transmission Line project

Community open house #4

HydroOne.com/Longwood-to-Lakeshore

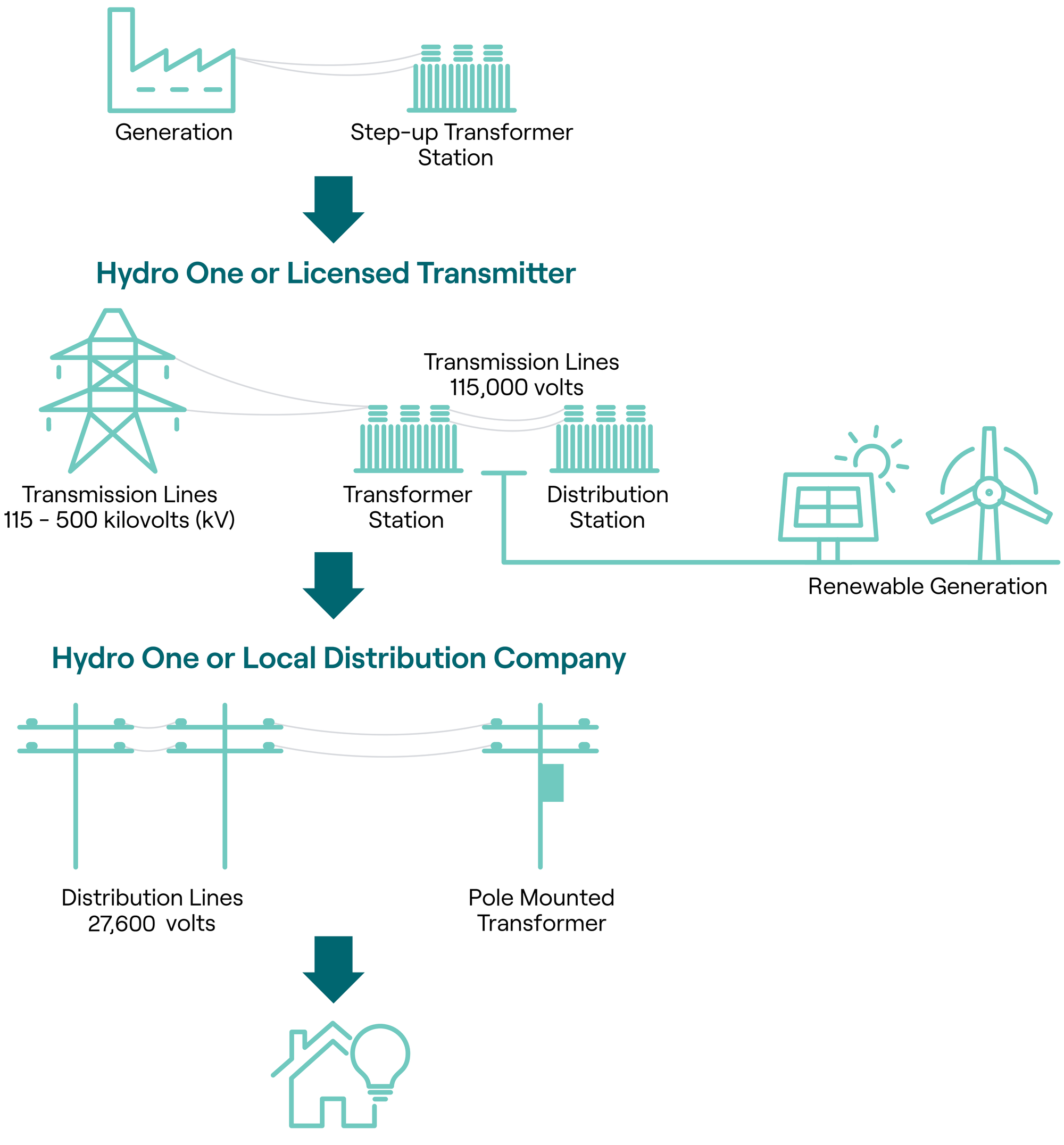
Purpose of today's community open house

- Review Ontario's electricity system and the need for the project
- Provide an overview of the Class Environment Assessment and route evaluation process
- Share the preferred route for the project
- Explain the selection of the preferred route
- Outline key milestones and next steps
- Answer questions and continue engagement

Hydro One's role in the system

Across the province, Hydro One builds, owns, operates and maintains the electricity transmission and distribution network that brings power to homes and businesses.

Ontario Power Generation and Private Generation Companies



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Southwest Ontario Transmission Projects

Under Construction

1 Between Chatham and Lakeshore

Under Development

2 St. Clair

3 Between Longwood and Lakeshore

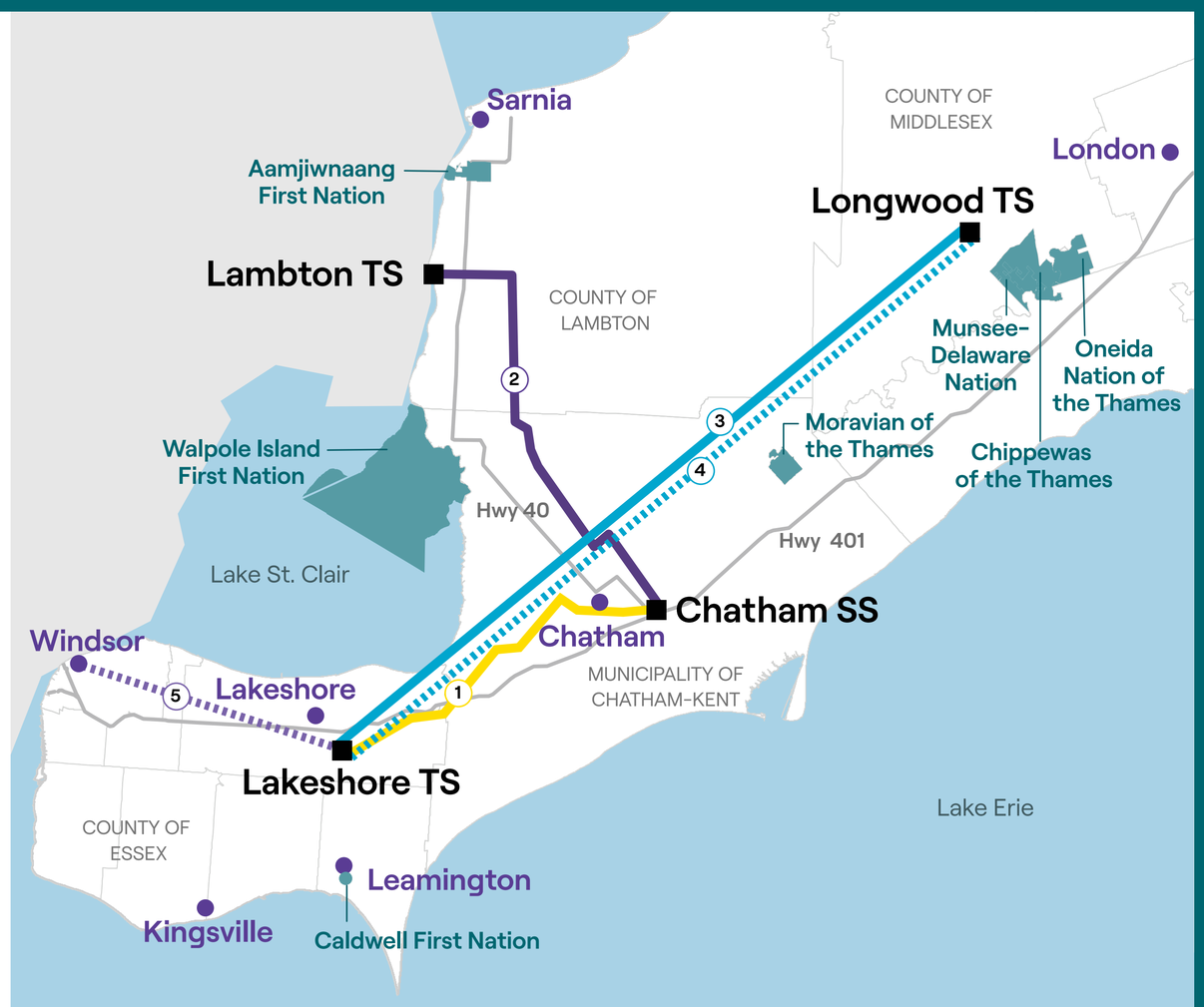
4 Between Longwood and Lakeshore

To Be Developed

5 Between Windsor and Lakeshore

Map Legend

- Transformer or Switching Station
- City/Town
- Highway
- First Nation



April 2024

For illustrative purposes only and not reflective of preferred routes.

Electricity needs in southwest Ontario

In southwest Ontario, electricity demand is anticipated to quadruple by 2035 according to the Independent Electricity System Operator (IESO). To meet this demand, a network of electricity infrastructure projects have been identified. This includes three projects already underway:

- **Chatham to Lakeshore Line:** In service
- **St. Clair Transmission Line:** Construction expected to begin in spring/summer 2025
- **Longwood to Lakeshore Transmission Line project:** Environmental Assessment underway

This network of projects will help meet electricity demands and support future growth, including in housing, agriculture and agri-business.

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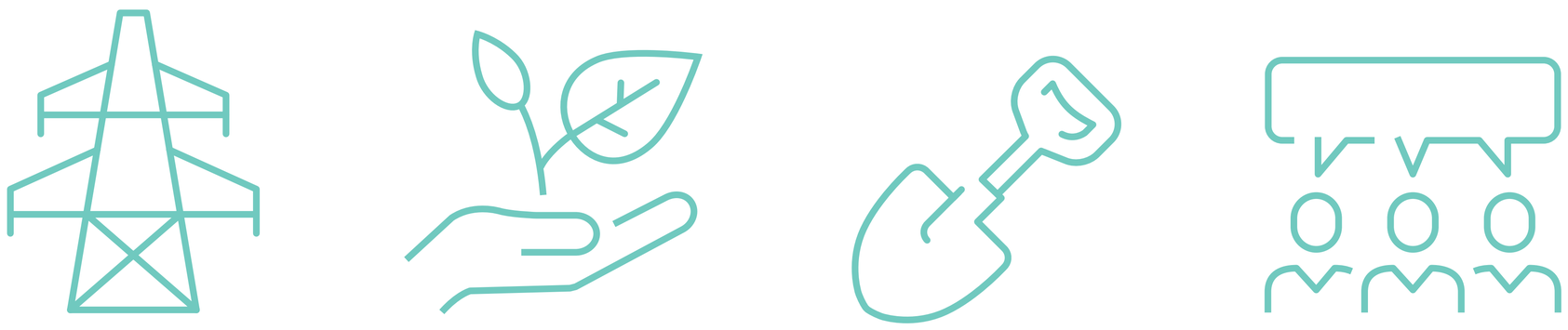
Class Environmental Assessment

Ongoing engagement

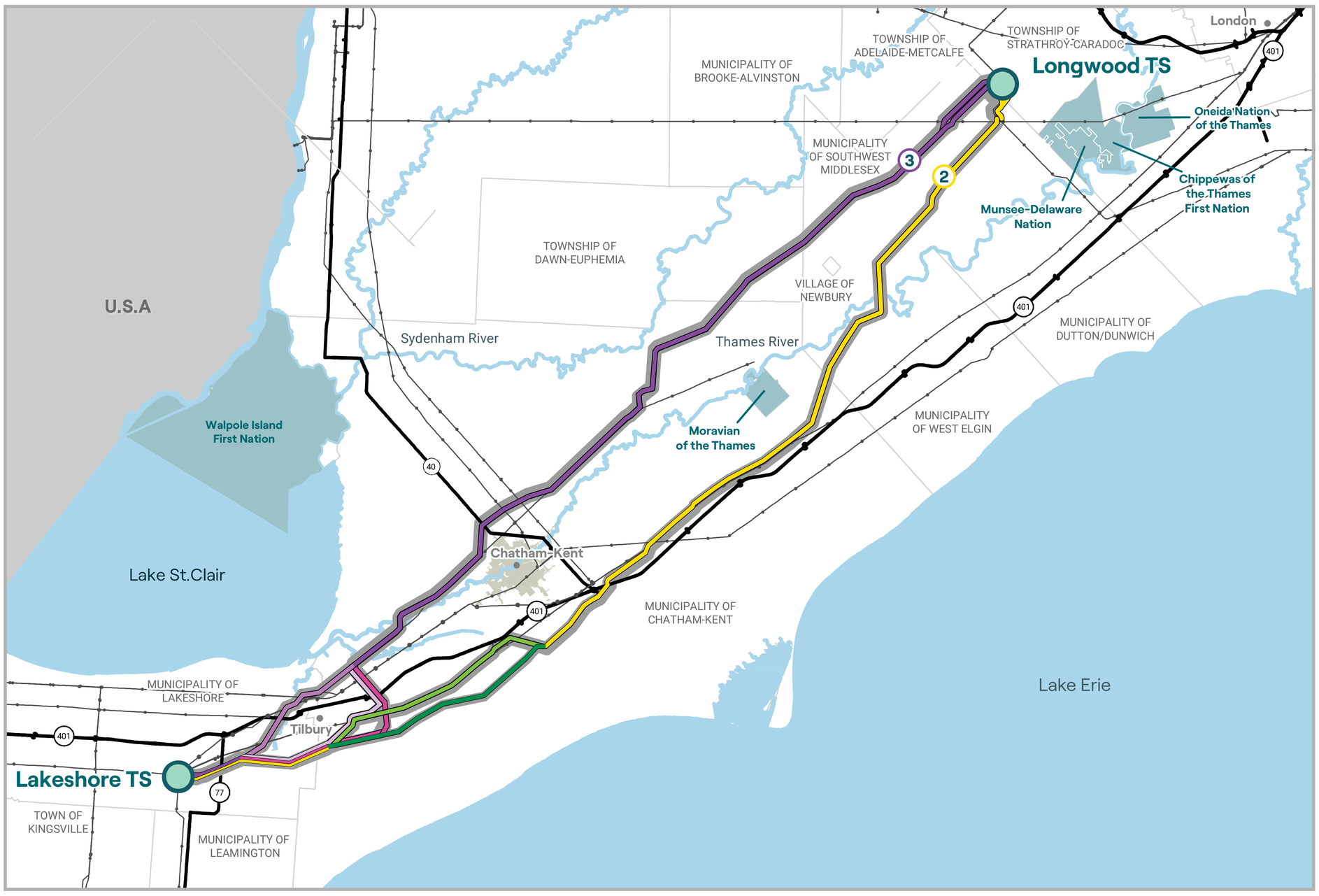
Steps of a Class EA

- Engage with Indigenous communities, the public, municipalities, interest groups and government agencies
- Collect environmental information
- Identify and evaluate route alternatives
- ★ Select a preferred route
- Start preliminary design activities for the preferred route
- Identify potential environmental effects and mitigation measures
- Prepare a draft Environmental Study Report (ESR) that will be made available for a 30-day public review and comment period
- Submit the Final ESR

For more information, see **HydroOne.com/ClassEA**



Longwood to Lakeshore project



Map Legend

- Transformer Station (TS)
- Route 2 (A/B Core Alignment)
  - Route 2A
  - Route 2B
- Route 3 (A/B/C Core Alignment)
  - Route 3A
  - Route 3B
  - Route 3C
- All Routes (2A/2B/3A/3B/3C)
- Local Study Area (500 m buffer on either side of the route alternatives)
- Existing Transmission Line
- Highway
- Municipal Boundary
- Waterbody
- First Nation
- Built Up Area

Note: With the exception of a section of Route 3 near Longwood TS, each route represents two transmission lines with parallel alignments. Each line has an assumed 60m right of way, pending detailed engineering.

0 5 10 km

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Route alternatives assessed

- In **March 2024**, three viable route alternatives, each with variations, were identified to connect the Longwood Transformer Station to the Lakeshore Transformer station.
- In **October 2024**, after public engagement, field studies and further technical analysis, refinements were made to the route alternatives, including the decision to eliminate Route 1 from consideration.

Example evaluation criteria

A thorough route evaluation process was undertaken, which incorporated desktop data, environmental field studies, research and feedback received.

The preferred route best balances the four evaluation categories.

Category	Examples
Socio-economic environment	• Agricultural resources and operations • Residential properties • Business, recreational and other land uses • Impacts on areas of cultural heritage value
Natural environment	• Wildlife habitat • Species at risk • Wetlands and vegetation • Natural hazards and floodplain areas
Technical and cost	• Line length and angles • Crossing of existing infrastructure • Real estate and land rights considerations • Construction complexity
Indigenous culture, values and land use	• Areas that support hunting, trapping and/or harvesting grounds • Areas that support fish bearing waters with identified or inferred habitat of game species • Effects to rare, undisturbed native habitats or ecosystems

Longwood to Lakeshore project

Map Legend

- Transformer Station (TS)
- Preferred Route 3B
- Local Study Area (500 m buffer on either side of the preferred route)
- Existing Transmission Line
- Highway
- Municipal Boundary
- Waterbody
- First Nation
- Built Up Area

Note: The illustrated route represents two transmission lines with parallel alignments, except near Longwood TS where the two lines have slightly different alignments exiting the station.

0 5 10 km

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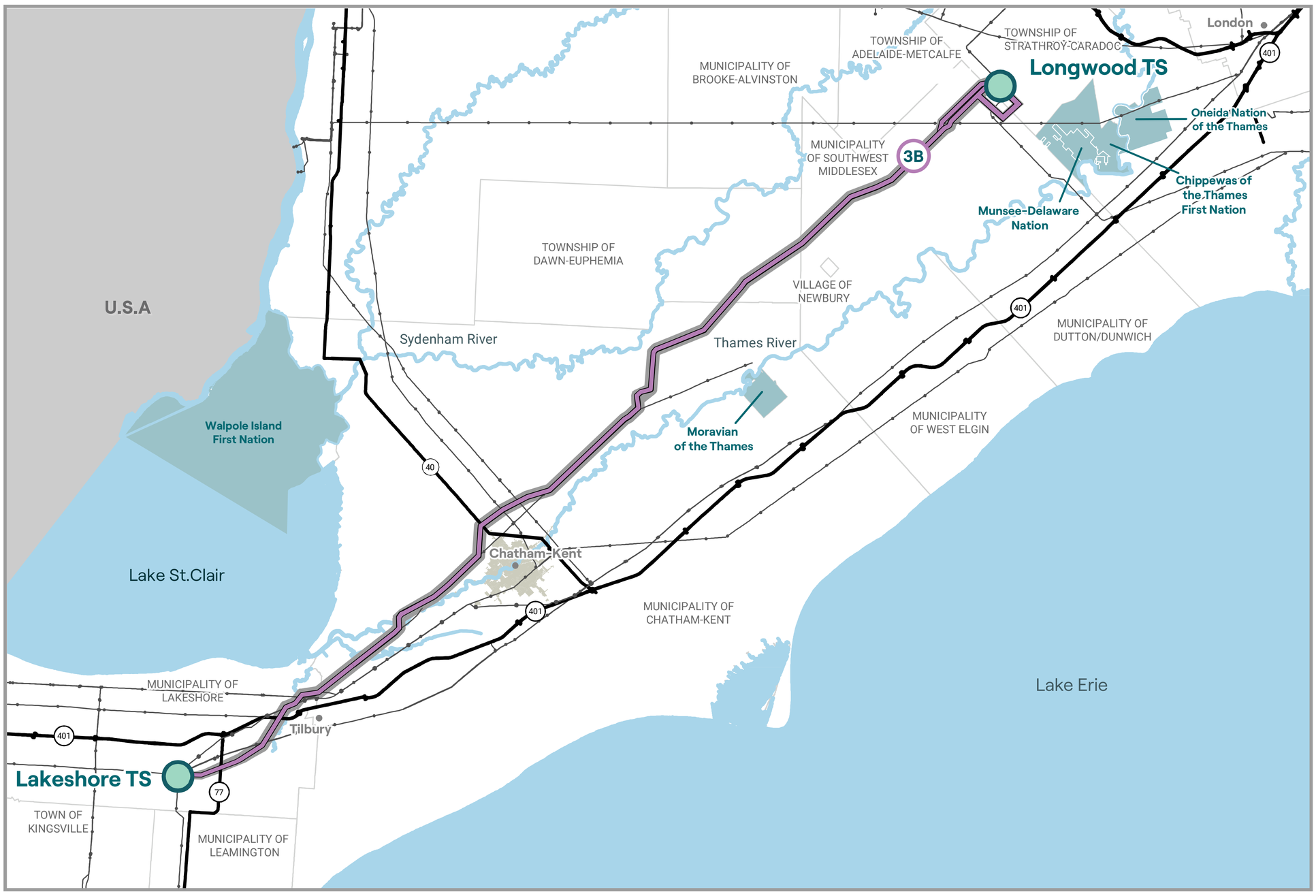


Please visit our online interactive map for a more detailed view: **HydroOne.com/Longwood-to-Lakeshore**

Preferred route 3B and its benefits

- The preferred route maximizes the re-use of existing transmission corridors, including approximately 27 kilometres of idle transmission corridor.
- Route 3B is the shortest of the alternative routes and requires the least amount of land for the project.
- The preferred route minimizes impacts on residential properties.
- Compared to all route alternatives, Route 3B involves the least potential disruption to species at risk and their habitats as well as the least vegetation removal, including trees.

Your feedback informed the route evaluation

Community outreach:

Open houses, property visits and registered mail to potentially impacted property owners

Ongoing calls and emails

Interactive map

Notices, newspaper, and social media ads

Meetings with Indigenous communities, stakeholders, local elected officials and interest groups

What we've heard:

Consider effects to agricultural lands and operations

Maximize the use of existing transmission and infrastructure corridors

Consider species at risk and ecological restoration areas

Minimize effects to homes

Natural environment evaluation summary

Route 3B scored best overall in the natural environment category, as it:

- Minimizes vegetation removal. Fewer trees and other vegetation are expected to be removed for the safe construction and operation of the line.
- Is least impactful to surface water resources and aquatic habitats.
- Has lower potential effects to species at risk and other species of conservation concern and their habitats.

Socio-economic environment evaluation summary

Route 3B scored best overall in the socio-economic category because it:

- Maximizes the re-use of existing transmission corridors.
- Has the least impact on residential and commercial properties.
- Interacts least with potential archaeological and cultural heritage areas.

Indigenous culture, values and land use evaluation summary

Route 3B scored best in the Indigenous, culture, values and land use category because it:

- Has the lowest potential effect on native/rare species and their habitats.
- Crosses less areas that support fish bearing waters.

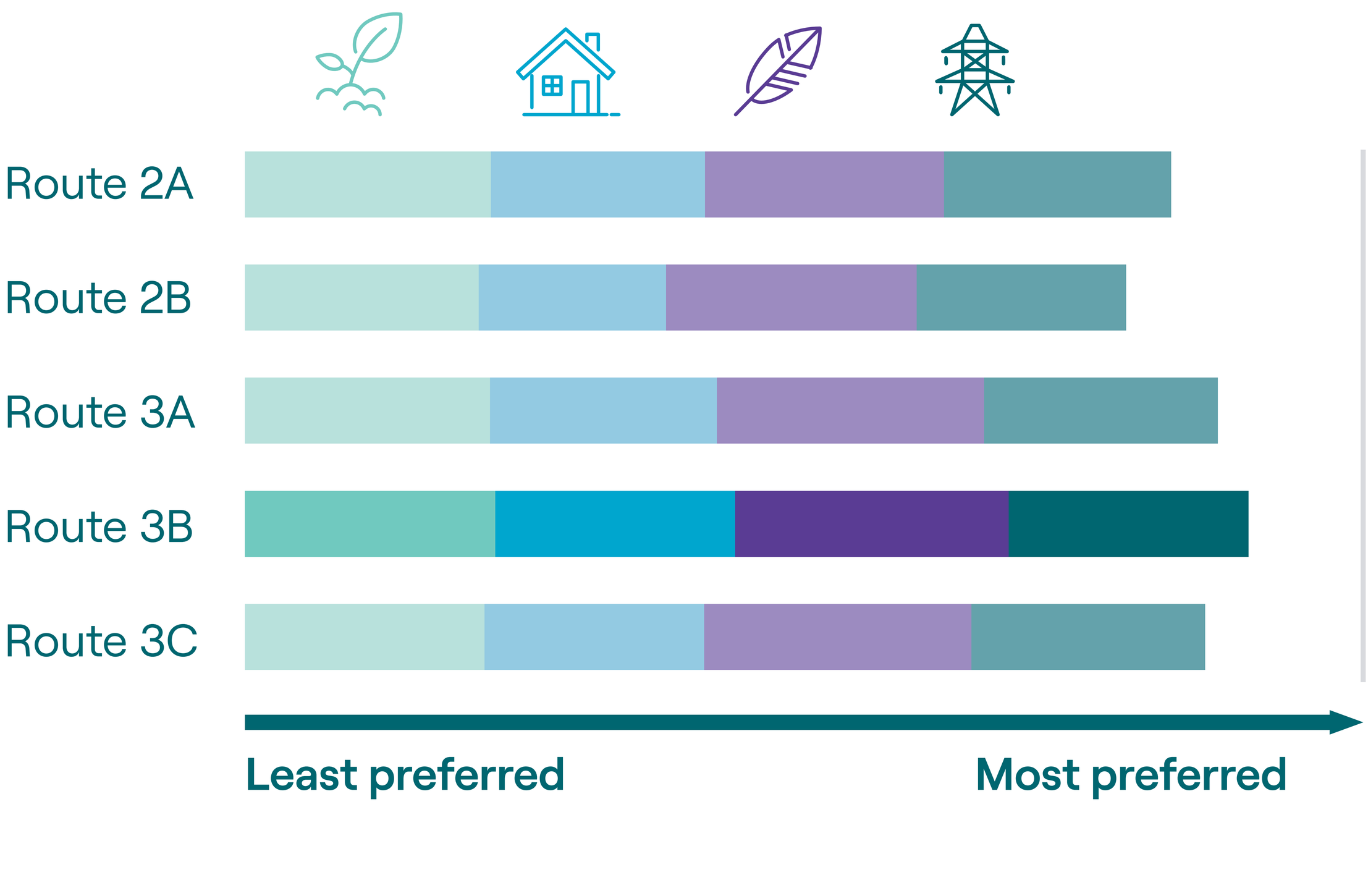
Technical and cost evaluation summary

Route 3B scored the best overall in the technical and cost category because it:

- Maximizes the re-use of existing transmission corridors.
- Has the least impact to active industrial and commercial facilities.
- Has the fewest angle (turning) structures.
- Has the shortest line length, which will result in lower material costs and hectares of land impacted.

Evaluation results

The evaluation concluded **Route 3B** has overall more advantages compared to the other route alternatives identified through the environmental assessment.



Working with property owners

Hydro One continues to work closely with directly impacted property owners.

Property owner choice
Property owners have the choice between an easement or purchase

Independent valuations
Offers are based on site-specific reports from independent third-party appraisers

Incentives
Monetary incentives will be offered in addition to market value compensation for voluntary property rights

Construction: mitigation of physical property damages
Property owners will be reimbursed for project related losses such as out of production cropland during and after construction

Mitigation and restoration opportunities

As a trusted and experienced builder of transmission lines in agricultural areas, the following mitigation measures are being considered for constructing the line.

Use existing access and watercourse crossings as much as possible

Apply erosion and sediment controls when needed

Avoid and protect tile drainage as much as possible and repair any damage resulting from construction

Retain compatible vegetation

Employ dust control measures

Restore temporary access roads and work areas after construction

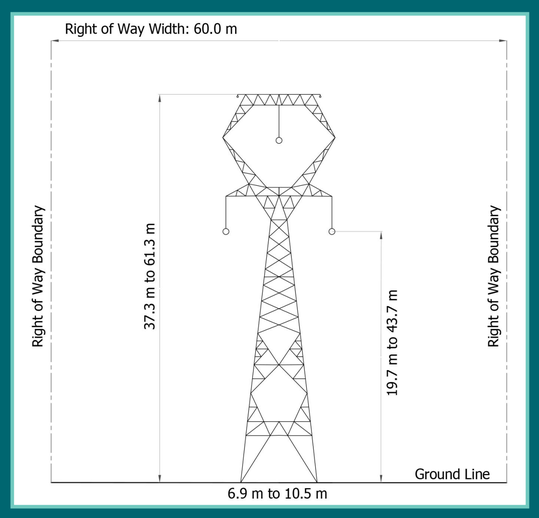
Designing the transmission line

With the preferred route selected, detailed design for the transmission line will consider:

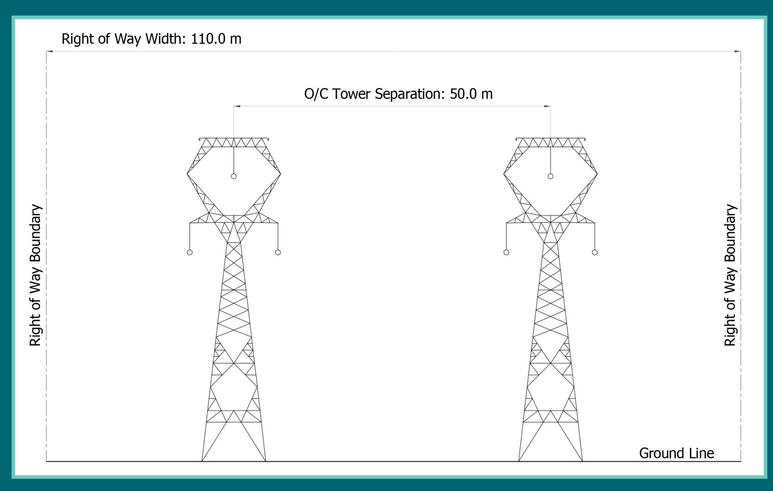
- Effects on residences and businesses
- Tower and structure heights and clearances
- Structure locations
- Tower foundation designs
- Environmental constraints
- Construction methodologies
- Geotechnical investigations
- Topography and soil conditions
- Right-of-way width

Over the next several months, we will complete more detailed environmental and technical studies to inform the design of the new line. We will also gather feedback from property owners about property specific features.

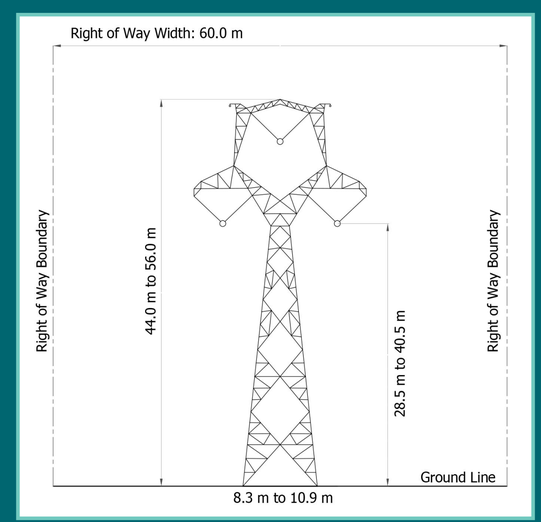
Typical tower design concepts



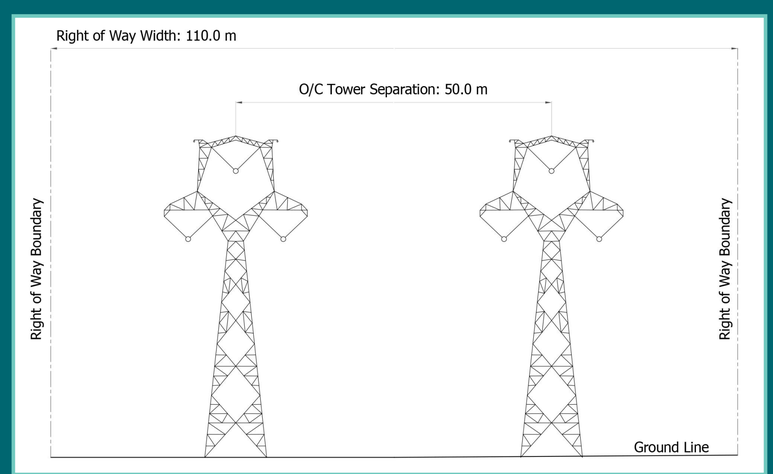
Single lattice tower



Parallel lattice towers



Single lattice tower



Parallel lattice towers

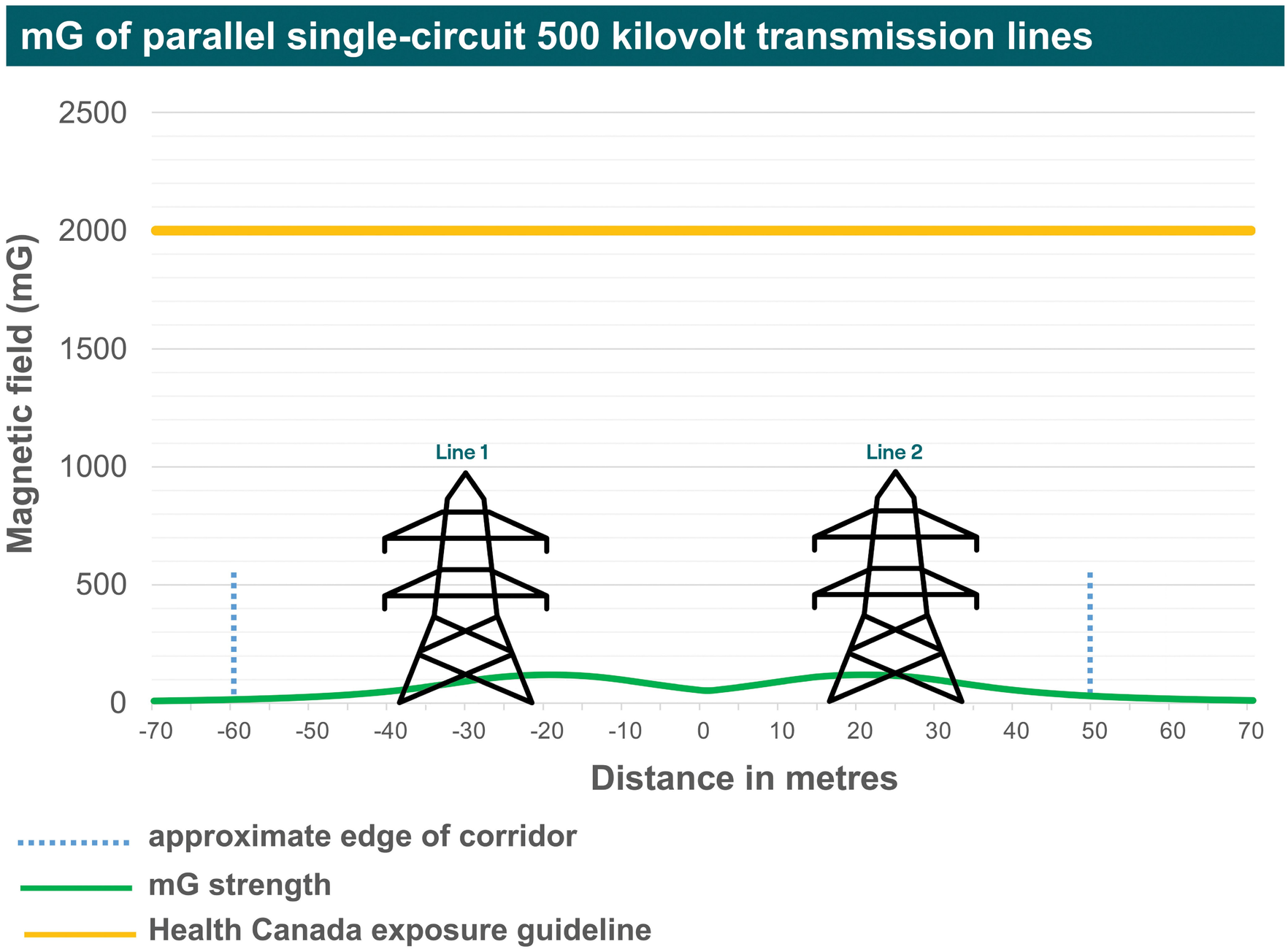
Note: Illustrations above are design concepts only and are subject to change.

Electric and magnetic fields (EMF)

Hydro One looks to scientific experts, like Health Canada, for guidance on safe EMF exposure levels. EMF levels under a typical 500 kilovolt high voltage transmission line are 95% below the strictest guideline established.

Many common household items emit EMF, including a vacuum cleaner (300 mG at six inches) and an electric oven (9 mG at six inches). As you move away from the source of EMF, the strength of their fields fades rapidly.

Health Canada does not consider that any precautionary measures by the public are needed regarding daily exposures to EMFs at extremely low frequencies.



Anticipated project schedule

Ongoing engagement

2023
Initial open houses, data collection and development of route alternatives

March - April 2024
Notice of Commencement of Class EA, release of route alternatives and open houses

2024
Consultation and data collection in support of Class EA

May 2025
Selection of preferred route

Mid- to Late-2025
Release the draft Environmental Study Report (ESR) for review and comment

Early 2026
Submit Final ESR and complete the Class EA process

2025 - 2026
Completion of detailed design and other permits and approvals from the Ontario Energy Board (Section 92)

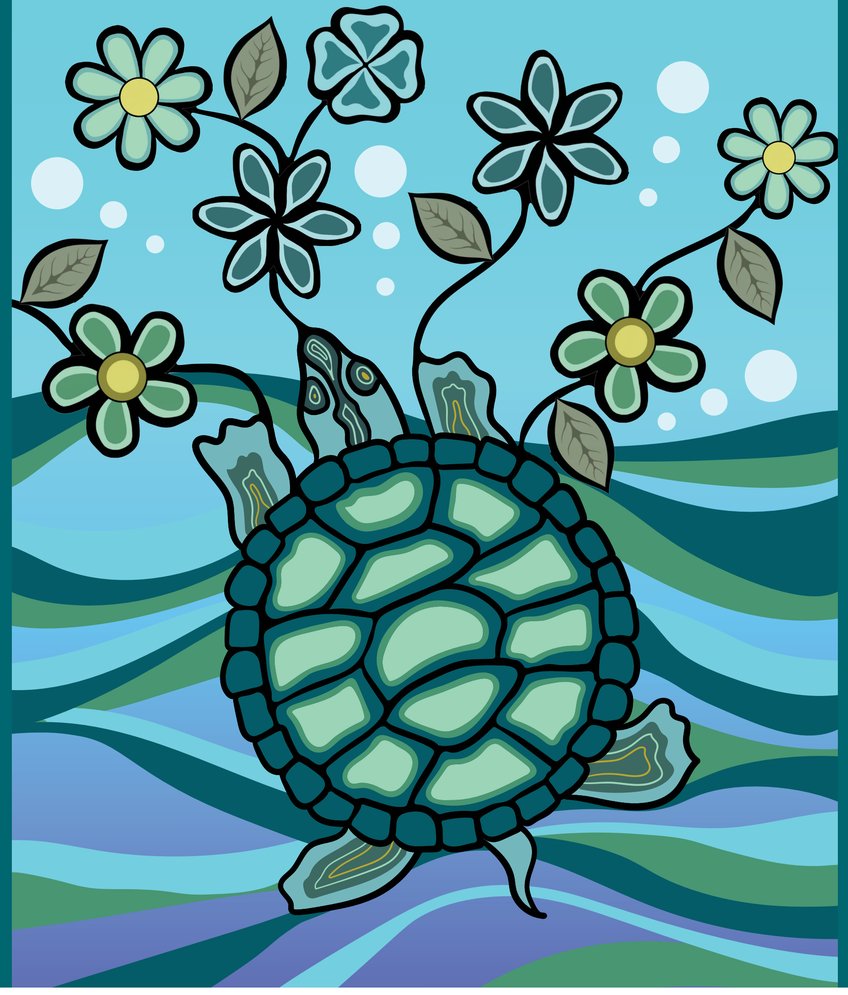
2027
Start of construction on Line 1

2030
Line 1 in-service

Line 2 construction and in-service date will be determined upon further planning by the IESO

*Timelines are subject to change

**Leave to Construct under Section 92 of the Ontario Energy Board Act is a regulatory process to obtain approval from the Ontario Energy Board to build and operate a transmission line.



Working with Indigenous communities

We consult in a meaningful way that is **guided by Indigenous communities**.

We look to include Indigenous perspectives in the Environmental Assessment through:

- Natural environment surveys
- Archaeological surveys
- Land use studies
- Open houses
- Recurring meetings with Hydro One project teams
- Field program participation

Thank you

We will continue to keep communities, residents and members of the public involved in our planning and project activities.

Your input is important to us. If you would like further information or have any questions, please contact:

1.877.345.6799

Community.Relations@HydroOne.com

For the most up-to-date project information, visit our project website:

HydroOne.com/Longwood-to-Lakeshore