



Durham Kawartha Power Line project

Draft Environmental Study Report highlights

October 2025



Land acknowledgment

Hydro One acknowledges that the Durham Kawartha Power Line project falls within the traditional territory of First Nations, including the Michi Saagiig (Mississauga) and the Chippewa of the Anishinaabeg. These Nations are signatories to a number of important treaties covering the project area. Hydro One understands that these Nations, among others, have been the caretakers of this land since time immemorial. We are grateful to be welcomed on these lands as partners to energize our futures together.



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Introduction

Hydro One is pleased to share the highlights of the draft Environmental Study Report (ESR) for the proposed Durham Kawartha Power Line project. The draft ESR is a key milestone in the Class Environmental Assessment (EA) process. It was developed with technical experts and in consultation with Indigenous communities, local and regional community members and elected officials. We welcome public input on the draft ESR. Further details on how to provide feedback are at the end of this document.

We welcome comments on the draft ESR during the 30-day comment period from **October 29, 2025 to November 27, 2025**. View the full draft report and provide your input today. HydroOne.com/DKPL





About the Durham Kawartha Power Line project

The Durham Kawartha Power Line project is a proposed new transmission line that will support the growing electricity needs and resilience of eastern Ontario.

The new double-circuit 230 kilovolt (kV) transmission line will run for approximately 53 km between the Dobbin Transformer Station (TS) in Peterborough County and the Clarington TS in the Municipality of Clarington.

About 95 per cent of the preferred route (50 km of the total length) uses an existing transmission corridor and idle infrastructure will be removed. That means fewer adverse effects on communities and the natural environment.

A portion of the line will be placed underground, and a portion of skywire will be upgraded on an existing line. Additionally, the project will involve reconfiguration at the transformer stations.

Once completed, this new transmission line will add approximately 400 megawatts (MW) of capacity to the electricity grid, enough to power a city bigger than Peterborough.



Working in partnership with First Nations

Hydro One acknowledges that the Durham Kawartha Power Line project falls within the traditional territory of First Nations including the Michi Saagiig (Mississauga), and the Chippewa of the Anishinaabeg. These Nations represent the signatories of The Williams Treaties on which the project resides. We are committed to working in partnership with these Nations throughout the project. As part of the pathway towards Reconciliation, local First Nations will have the opportunity to participate in project development and invest in a 50 per cent stake in the transmission line component of this project following Hydro One's First Nations Equity Partnership Model.

Selecting the preferred route

While most of the project will repurpose an existing transmission line corridor, we studied two route alternatives for a three-kilometre section of the line near Clarington TS. We evaluated potential routes based on environmental field studies, research and feedback on the potential benefits and challenges of each option. Our work reviews four evaluation categories, which were applied to all routes in a fair and transparent manner:



**Indigenous
culture, values
and land use**



**Natural
environment**



**Socio-economic
environment**



**Technical
and cost**

Route Alternative A would expand the existing 115 kV transmission line corridor, which would result in additional vegetation removal, while Route Alternative B would establish a new right-of-way through agricultural land which commonly co-exists and is highly compatible with transmission lines. Ultimately Route Alternative B was selected as the preferred route. The preferred route:

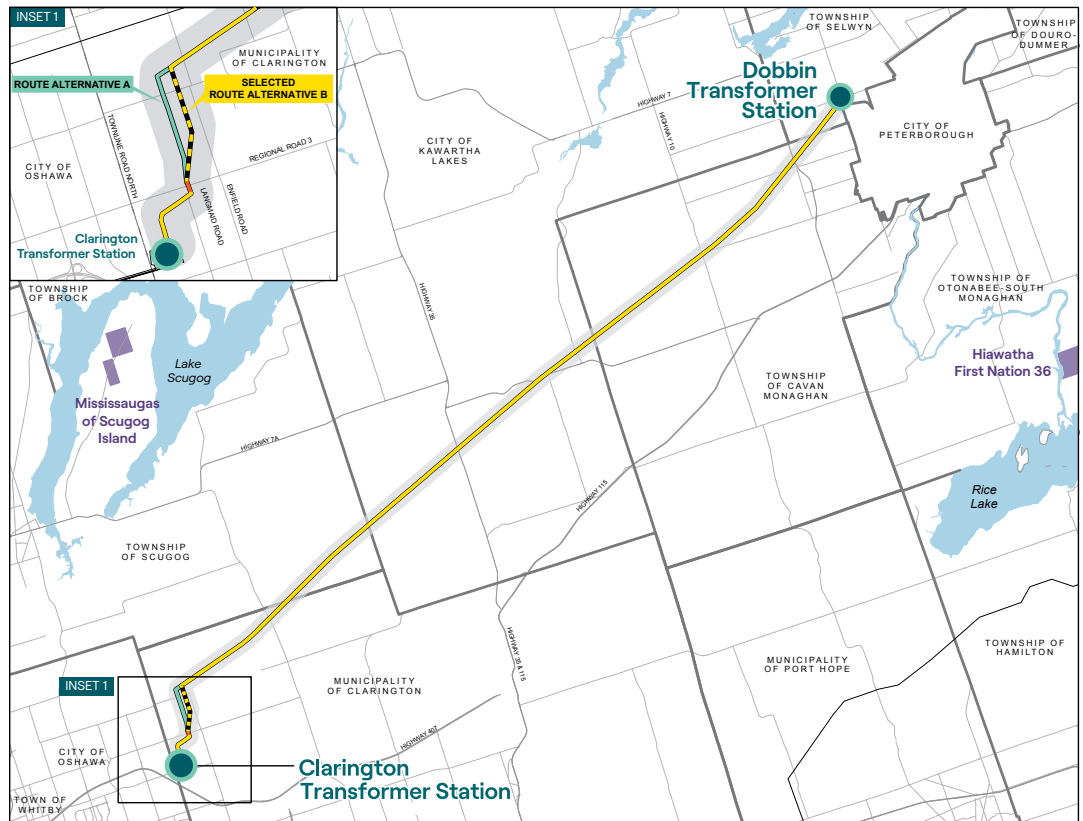
- Largely avoids identified areas and features of importance as raised by Indigenous communities
- Will have fewer effects on water features, woodlots and vegetation important for wildlife, including any species at risk
- Has fewer potential heritage resources and residential structures
- Requires fewer angle structures and minimizes vegetation removal and maintenance



Durham Karwartha Power Line Project

Map Legend

- Station/Junction
- Preferred route
- Selected route alternative B
- Route alternative A
- Potential underground line
- Local study area (500 m on either side of the route centerline)
- Municipal boundary
- First Nation community
- Waterbody
- Roads



Freedom of Information and Protection of Privacy Act

All personal information included in your request – such as name, address, telephone number and property location – is collected, under the authority of section 30 of the *Environmental Assessment Act* and is collected and maintained for the purpose of creating a record that is available to the general public. As this information is collected for the purpose of a public record, the protection of personal information provided in the *Freedom of Information and Protection of Privacy Act* (FIPPA) does not apply (s.37). Personal information you submit will become part of the available public record unless you request that your personal information remain confidential.



Energizing life in eastern Ontario

Electricity demand in eastern Ontario is expected to grow rapidly over the next 20 years, from Peterborough to Quinte West and extending into the Ottawa region. We need to invest in the transmission system today to ensure the region continues to have clean and reliable power along with the resiliency and capacity to support future growth.

Powering economic development

By tapping into local resources, including labour, materials and equipment, we support the future infrastructure development and economic growth of eastern Ontario. Over the lifecycle of the project, we expect to create approximately 100 jobs.

Responsible project planning

We work to ensure all of our infrastructure projects are built in a sustainable and environmentally responsible manner, with local interests in mind. We're dedicated to completing the planning stage without delay in order to supply additional power to the region when and where it is most needed.

Modernizing infrastructure

Much of the electricity system that serves this region was built in the 1930s and 40s. In addition to investing in new infrastructure to serve the region, Hydro One continues to focus on maintaining and upgrading its existing infrastructure that has served eastern Ontario for many years.

By the numbers



53 km

The length of the preferred route, about 95 per cent of which will use an existing transmission line corridor



400 MW

This added capacity is enough to power a city bigger than Peterborough



75 per cent

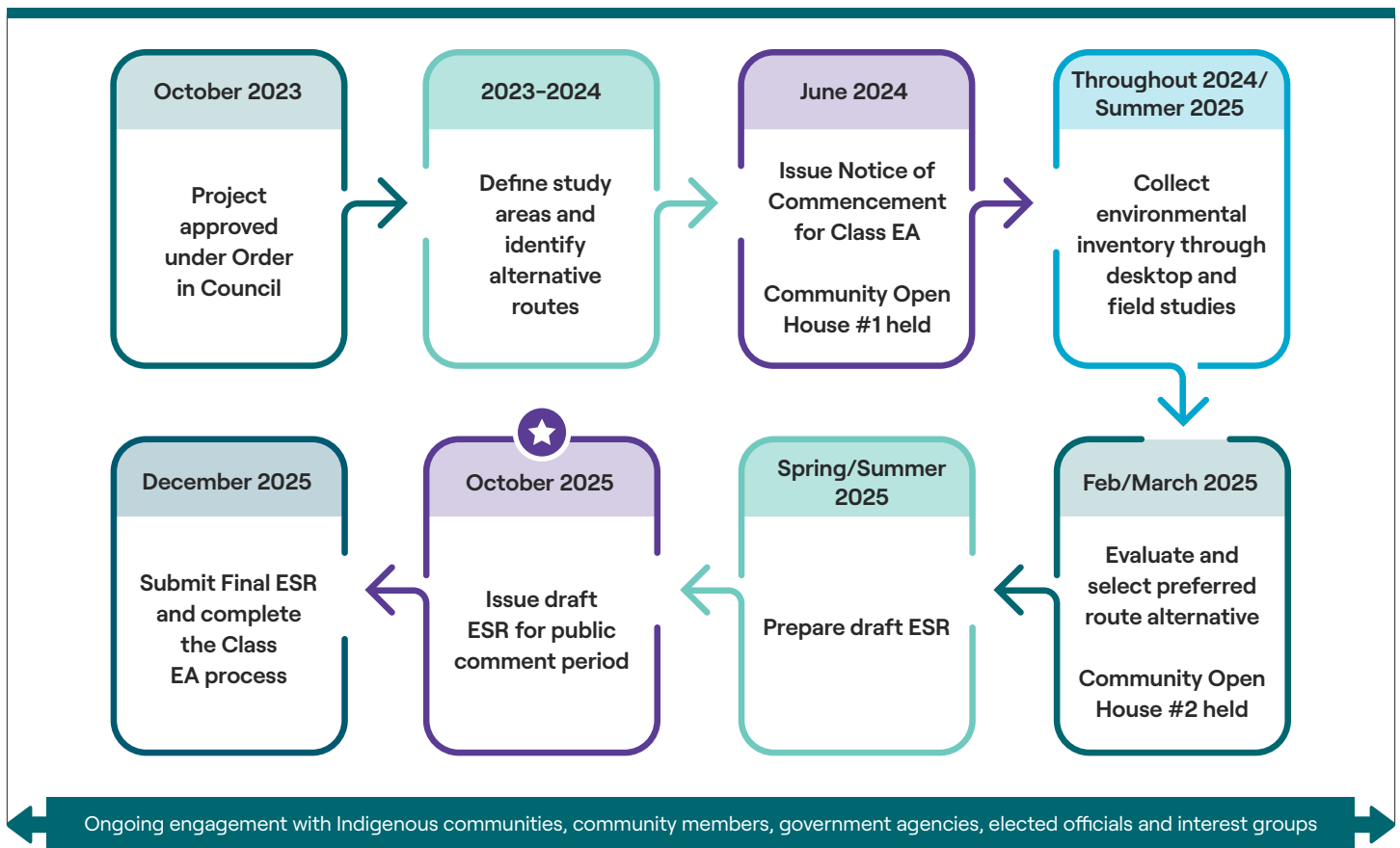
The predicted increase in energy demand in Ontario in the next 25 years



About the Class Environmental Assessment

The Class EA ensures that potential natural, economic, social and cultural effects are thoroughly considered before a project begins. It is a planning process that applies to transmission infrastructure projects that are carried out routinely and have predictable environmental effects that can be readily managed. The draft ESR, and public input on it, is an important part of the overall Class EA process.

HOW THE PROCESS WORKS



The draft ESR:

- Details the consultation we have undertaken with Indigenous communities, government agencies, municipal staff, elected officials, interest groups and the public
- Outlines the route identification and evaluation process used to select the preferred route
- Describes the existing conditions of the area surrounding the proposed project
- Predicts and assesses potential environmental effects of the project
- Identifies the mitigation measures that we will take to minimize and avoid potential adverse project effects



Ongoing engagement

Continued engagement with Indigenous communities, property owners, businesses, government agencies and other interested parties is critical to help us plan a project that considers the needs and interests of the region.

What we've heard

- Incorporate Indigenous perspectives into the project
- Consider effects to agricultural lands
- Consider species at risk, wetlands and watercourses, and ensure restoration of ecologically important areas affected by operations
- Maximize the use of existing transmission corridors
- Minimize effects to homes



Engagements with
Indigenous communities



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



Ongoing calls and emails



Interactive map



Notices, newspaper and social media ads



Meetings with stakeholders, local elected officials and interest groups

Comments from Rightsholders and stakeholders as well as responses from Hydro One are included in Section 3 of the draft ESR.



Summary: what we found

Overall, the draft ESR concludes that the project is not expected to create significant adverse effects to the environment or communities, especially since the preferred route is predominantly along an existing corridor. Potential environmental effects can be effectively managed using industry-standard environmental mitigation measures. We will take specific actions to limit or avoid potential effects on agriculture, plants and wildlife, water, quality of life and more.

The draft ESR also outlines that:

- The project is helping to meet current and future electricity needs in eastern Ontario
- The preferred route will limit effects to the natural environment and disruption to properties
- Project impacts can be mitigated to reduce potential adverse impacts
- The project benefits, including supporting economic growth and delivering clean, reliable energy to the region, outweigh its impacts

Hydro One prioritizes safety in all our projects. We design and operate our equipment in accordance with all regulatory requirements. Health Canada has found no conclusive evidence of any harm caused by electric and magnetic fields (EMF) exposure from transmission lines. It also does not consider that any precautionary measures are needed regarding daily exposures to EMFs at extremely low frequencies.



Discover more at
HydroOne.com/DKPL

Key actions Hydro One will continue to take

Working with property owners

Where the proposed line traverses properties, we will work with owners to understand the unique features of their properties.

Enhancing community benefits

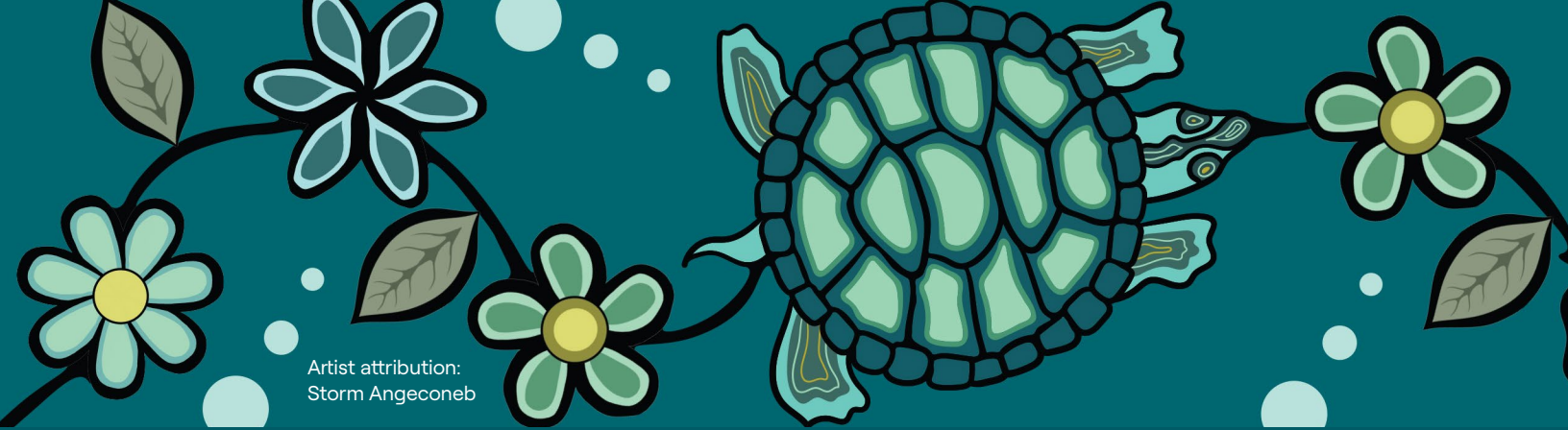
We continue to work with Indigenous communities, interest groups and municipalities to find opportunities to contribute to the areas around our projects in a positive way, recognizing that community benefits can be varied and diverse.

Continued study

Hydro One and its contractors will continue to undertake environmental surveys and analysis to understand and minimize project effects and support permitting as construction planning and design progresses.

Biodiversity Initiative

The majority of the project uses an existing transmission line corridor and the preferred route largely avoids natural habitats, minimizing both temporary disturbances during construction and long-term habitat loss. However, to address concerns expressed by some Rightsholders and stakeholders during the Class EA, we will implement a Biodiversity Initiative for this project to provide some additional habitat benefits to the region.



Artist attribution:
Storm Angeconeb

Highlights: Indigenous culture, values and land use

This section summarizes how we will limit or avoid effects to Indigenous culture, values and resources during construction and operations.



First Nations land use and interests

What we found

Stewardship of the land, including wetlands and watercourses, as well as protection of species at risk and wildlife, are culturally significant and important to Indigenous communities. More specifically, some communities identified the importance of protecting endangered Black Oak Savannah and Tallgrass Prairie ecosystems. These areas are used for harvesting and traditional practices, and as habitat for culturally significant species.

What we'll do

- Continue engagement with First Nations throughout the project to provide regular updates, ensure their concerns are understood and work together on collaborative solutions
- Incorporate Traditional Ecological Knowledge into planning where willingly provided
- Share Environmental Management Plans with communities for their review and input
- Further advance archaeological assessments for the new transmission line corridor and provide opportunities for Indigenous communities to monitor all archaeological fieldwork and review reports

Key takeaway

We understand that building meaningful relationships with Indigenous communities is essential to the success of this project. Our commitment goes beyond consultation. We will foster lasting partnerships rooted in respect, transparency and collaboration, ensuring Indigenous voices, knowledge and values help shape how the project is planned, executed and experienced.

The project study area is located within the traditional territory of several Indigenous communities. Indigenous communities were engaged early in the planning process and have been providing meaningful inputs to ensure their perspectives and concerns are captured in the draft ESR.

Explore more about what we studied and found in Section 4.4.1.4 and 7.8 of the draft ESR.



Highlights: natural environment

This section highlights how we will limit or avoid significant adverse effects to the natural environment in the project area, including air and water, wildlife and their habitats.



Wildlife and habitat

What we found

Construction activities could disturb wildlife and their habitats, including for species at risk, and it is possible the project could inadvertently spread non-native or invasive species. However, most of the project makes use of an existing transmission line corridor, minimizing any long-term habitat changes.

What we'll do

- Restrict construction activities to designated work areas and clearly demarcate sensitive zones
- Implement erosion and sediment controls near wetlands, watercourses and riparian areas
- Minimize vegetation removal during migratory bird breeding and active bat seasons and retain compatible vegetation, especially near watercourses
- Use existing watercourse crossings and access routes wherever practical
- Provide training to construction staff on species at risk identification and protection protocols
- Avoid inadvertent spread of invasive species through proper identification, containment and disposal, equipment inspections and cleaning and prioritizing native species for restoration
- Maintain natural drainage patterns and install equalization culverts where necessary to preserve existing water flow
- Engage proactively with First Nations, conservation authorities and municipalities during detailed design and construction planning to ensure compliance and effective environmental protection

Key takeaway

With the measures described here, we do not expect to have significant adverse effects on water and wildlife in the project area. Making use of the existing corridor avoids additional new crossings of environmental features and minimizes habitat disruption.

The project is within the Oak Ridges Moraine, an area celebrated for its ecological importance. We are working with the Oak Ridges Moraine Land Trust and conservation authorities to minimize adverse effects to this important area.

Explore more about what we studied and found in Sections 4 and 7 of the draft ESR.



Water quality

What we found

The project is within the Oak Ridges Moraine, an important ecological area. Project activities, such as dewatering, vegetation removal and inadvertent spills could impact surface water and groundwater quality but these effects can be minimized with mitigation measures.

What we'll do

- Manage dewatering and discharge activities responsibly, including filtering construction water, avoiding discharging it within 30 m of sensitive receptors (such as watercourses and wetlands) and using sediment controls if required
- Develop and execute a Spill Prevention and Response Plan for spills, ensure refueling occurs away from source water protection areas and have spill-containment measures ready
- Comply with relevant water protection legislation and policies

Key takeaway

With mitigation measures, we can limit or avoid adverse effects on surface water, groundwater and source water quality, and safeguard aquatic habitats.

Making use of the existing corridor avoids additional new crossings of the Oak Ridges Moraine and Provincially Significant Wetlands (PSW), and minimizes vegetation removal.

Explore more about what we studied and found in Sections 4 and 7 of the draft ESR.



Air quality and noise

What we found

Dust and other emissions during a project like this can be a nuisance for those living in the area and there is a potential for temporary increased noise. However, we've identified several measures to limit or avoid these effects.

What we'll do

- Minimize vehicle and equipment idling and maintain equipment to reduce fossil fuel emissions
- Minimize dust by using techniques such as on-site watering
- Restore disturbed areas to reduce soil exposure and related air quality effects
- Comply with local noise control by-laws, or obtain municipal approvals and permits if exemptions are required
- Restrict construction-related noise and vibration to short-term, intermittent periods

Key takeaway

Emissions, dust and noise during construction will be temporary. We will take steps to minimize those potential effects, reduce our environmental footprint and maintain a respectful presence in the communities we serve.

Implosive splicing is a process to join pieces of wire. While it creates noise, it will happen at predetermined times and is not expected to last.

Explore more about what we studied and found in Sections 4 and 7 of the draft ESR.



Highlights: socio-economic environment



Agricultural lands and farm operations

What we found

Since about 95 per cent of the preferred route uses an existing transmission line corridor, and transmission lines are compatible with most agricultural land uses, we can limit the effects on agricultural operations. Construction activities will require temporarily removing some crops and could compact or affect soil quality. We will work to minimize these effects. While most effects will be temporary, there will be minimal permanent loss of agricultural crop land within the new towers' physical footprint.

What we'll do

- Notify property owners of planned construction activities
- Work with property owners to determine existing field tile locations, and avoid, protect and repair them as needed
- Limit vehicle and equipment travel to designated access routes or existing pathways where practicable
- Maintain gates, fencing and exclusion barriers to prevent livestock escape or injury
- Provide advanced notification, use signage and adhere to safety protocols for implosive splicing use
- Reimburse for cropland out of production before, during and for a reasonable period after construction

Key takeaway

We understand the importance of agriculture to local communities and Ontario's future and will work alongside farmers and property owners to protect farmland, minimize disruptions and maximize continued agricultural use.

Explore more about what we studied and found in Section 4 and 7 of the draft ESR.



Land use and recreation

What we found

The project spans urban and rural municipalities with diverse populations and land uses, including agricultural lands, transportation corridors and recreational trails. Construction could impact traffic and access to community resources, and create noise, but these effects will be temporary.

What we'll do

- Maintain ongoing communication with property owners, businesses, municipalities and emergency services
- Conduct pre and post-construction surveys of local roads to document conditions and repair any road damage directly resulting from construction traffic
- Minimize temporary road closures
- Develop Traffic Control Plans and share them with local municipalities, commercial operators and emergency services providers as required
- Provide proper notice and use required signage and traffic controls if temporary highway closures are required
- Provide signage and alternate access for recreational areas, where applicable

Key takeaway

Effects to land use and recreation will be temporary. We will communicate with property owners, businesses and residents about our work, including potential noise and traffic disruption.

Hydro One aims to balance infrastructure development with community well-being by minimizing disruptions and maintaining access to valued local resources.

Explore more about what we studied and found in Section 4 and 7 of the draft ESR.



Archaeological and cultural heritage resources

What we found

The project includes lands with archaeological potential, as well as a previously recorded archaeological site, cultural and built heritage resources. Mitigation measures can prevent or limit effects on specific properties.

What we'll do

- Complete archaeological field work before construction
- Provide First Nation communities opportunities to participate in the field surveys and review the findings and archaeological assessment reports
- In the event archaeological material is encountered during construction, pause activities in the immediate area where it is located and engage a licensed archaeologist and Indigenous communities
- Avoid or minimize impacts to Built Heritage Resources and Cultural Heritage Landscapes through careful planning of work and commitments to restoration

Key takeaway

We will protect Ontario's rich cultural heritage. Where there is potential to affect archaeological sites or heritage resources, we will complete detailed studies and work closely with regulators and Indigenous communities to ensure appropriate mitigation is in place before construction begins.

Hydro One has retained a licensed archaeologist to conduct archaeological assessments for the new transmission line corridor. We are currently planning to conduct archaeological field surveys on areas with identified archaeological potential to ensure that any archaeological resources found are appropriately managed and protected.

Explore more about what we studied and found in Section 4 and 7 of the draft ESR.



Cumulative Effects Assessment (CEA)

What we found

The Class EA for Transmission Facilities (2024) requires an assessment to understand the effects other projects in the immediate area (500 m) of the preferred route may have. For the Durham Kawartha Power Line project, Hydro One considered other projects where documentation was available. The following projects were reviewed as part of the CEA:

- Rehabilitation of Highway 115 to Bethany | Ministry of Transportation
- Rehabilitation of Regional Road 3 from Townline Road to Enfield Road | Durham Region
- Dobbin Component Replacement project | Hydro One
- Enfield TS 44 kilovolt (kV) relocation | Hydro One

Key takeaway

We expect mitigation measures described in the draft ESR to reduce the project's contribution to cumulative effects. Potential impacts are largely temporary, site-specific and can be managed effectively at a project level.

We acknowledge that there are historical and ongoing pressures on Indigenous communities' lands and resources due to settlement and development activities. However, Hydro One's role is to provide essential electrical infrastructure based on regional planning assessments and directives from the Independent Electricity System Operation (IESO).

The IESO identified the need for the project and the Government of Ontario directed Hydro One to develop, construct and operate the new transmission line. While proceeding under these directives, the CEA focused on the immediate project area, recognizing that broader future development driven by the project is beyond Hydro One's control. The project itself is expected to support economic growth and provide clean, reliable energy to meet the region's future needs.

Explore more about what we studied and found in Section 7.12 of the draft ESR.



Have your say

We want to know

- Do you have additional suggestions for avoiding or minimizing effects that you want to see us take?
- Do you have questions about the overall assessment or specific parts of the assessment?
- Do you have any other comments about the draft ESR that you want us to consider?

How to provide comments

The draft ESR is available for review and comment for 30 days, **from October 29, 2025 to November 27, 2025**. See below for information on where to find the draft ESR.

Anyone wishing to provide comments must do so by **November 27, 2025 at 4:30 p.m. to:**

Rhona Scott
Environmental Planner
483 Bay St., 14th Floor
Toronto, ON
M5G 2P5

Comments can also be submitted to **1.877.345.6799** or **Community.Relations@HydroOne.com**

In the event of disruption to mail delivery, please also provide comments by phone or email.

For the most up-to-date project information and project updates, visit our project website: HydroOne.com/DKPL

Where to find the draft ESR

Online

HydroOne.com/DKPL

In person

Electronic and hard copies are available at the following locations:

- **Bethany – Kawartha Lakes Public Library**
1474 ON-7A. Bethany, ON
705-324-9411
Sunday – Monday: closed
Tuesday: 3 p.m. – 7 p.m.
Wednesday: 10 a.m. – 2 p.m.
Thursday: 11 a.m. – 7 p.m.
Friday: closed
Saturday: 10 a.m. – 2 p.m.
- **Cavan Monaghan Libraries Bruce Johnston Branch**
2199 Davis Rd. Cavan-Monaghan, ON
705-741-1253
Sunday – Monday: closed
Tuesday: 10 a.m. – 7 p.m.
Wednesday: closed
Thursday: 10 a.m. – 5 p.m.
Friday: closed
Saturday: 10 a.m. – 3 p.m.
- **Clarington Library, Museums & Archives – Bowmanville Library**
163 Church St. Bowmanville, ON
905-623-7322
Monday – Thursday: 9:30 a.m. – 8 p.m.
Friday: 9:30 a.m. – 6 p.m.
Saturday: 9:30 a.m. – 5 p.m.
Sunday: 12:30 p.m. – 5 p.m.



We welcome your feedback.

View the full draft Environmental Study Report and provide your input today.

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If you have any questions or need further information about this project, contact **Community.Relations@HydroOne.com** or **1-877-345-6799**

