



Durham Kawartha Power Line project

Final Environmental Study Report highlights

January 2026



Connecting power
and possibility™



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 final Environmental Study Report (ESR) for the Durham Kawartha Power Line Project. Completion of the final ESR marks the end of the Class Environmental Assessment (EA) process. The draft ESR was released for a 30-day comment period from Oct. 29 to Nov. 27, 2025. Comments received during that period and Hydro One's responses are documented in the final ESR.

View the full final Environmental Study Report here:
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 kilometres (km) between the Dobbin Transformer Station (TS) in Peterborough County and the Clarington TS in the Municipality of Clarington.

The majority of the project route (about 95 per cent) will use an existing transmission corridor, with idle infrastructure 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 (overhead protection wire) 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.

Hydro One is closely collaborating with Alderville First Nation, Beausoleil First Nation, Chippewas of Georgina Island First Nation, Chippewas of Rama First Nation, Curve Lake First Nation, Hiawatha First Nation and Mississaugas of Scugog Island First Nation on this project. These partners will also have the opportunity to invest in the transmission line component of the project through Hydro One's industry-leading First Nation Equity Partnership Model.

Selecting the preferred route

While most of the project will use an existing transmission line corridor, we studied two route alternatives for a three-kilometre section of the line near Clarington TS. All route alternatives were evaluated using information from environmental field studies, research and feedback on the potential benefits and challenges of each option. They were also assessed using four evaluation categories:



**Indigenous
culture, values
and land use**



**Natural
environment**



**Socio-economic
environment**



**Technical
and cost**

Following the careful evaluation of each route, Route Alternative B was selected as the preferred route. Where Route Alternative A would require the expansion of the existing corridor and result in additional vegetation removal, Route Alternative B would allow for the establishment of a new right-of-way through agricultural land which commonly co-exists and is highly compatible with electricity infrastructure. Route Alternative B:

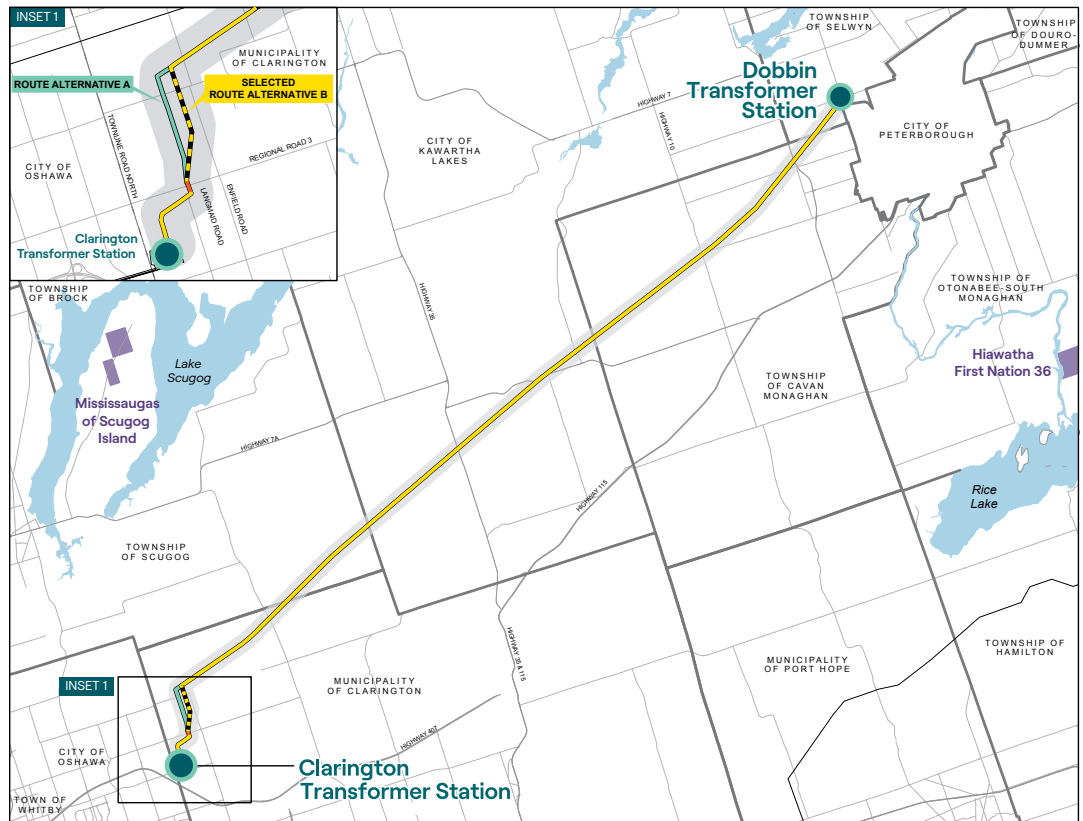
- Largely avoids identified areas and features of importance as raised by Indigenous communities
- Will have fewer effects on water features, woodlots and vegetation important for wildlife, including any species at risk
- Has fewer potential heritage resources and residential structures
- Requires fewer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



Investing 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.

First Nations partnerships

The project will enable First Nations with meaningful procurement, employment and investment opportunities.

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 build our infrastructure projects in a sustainable and environmentally responsible manner, with local interests in mind.

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 kilometres

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



400 megawatts

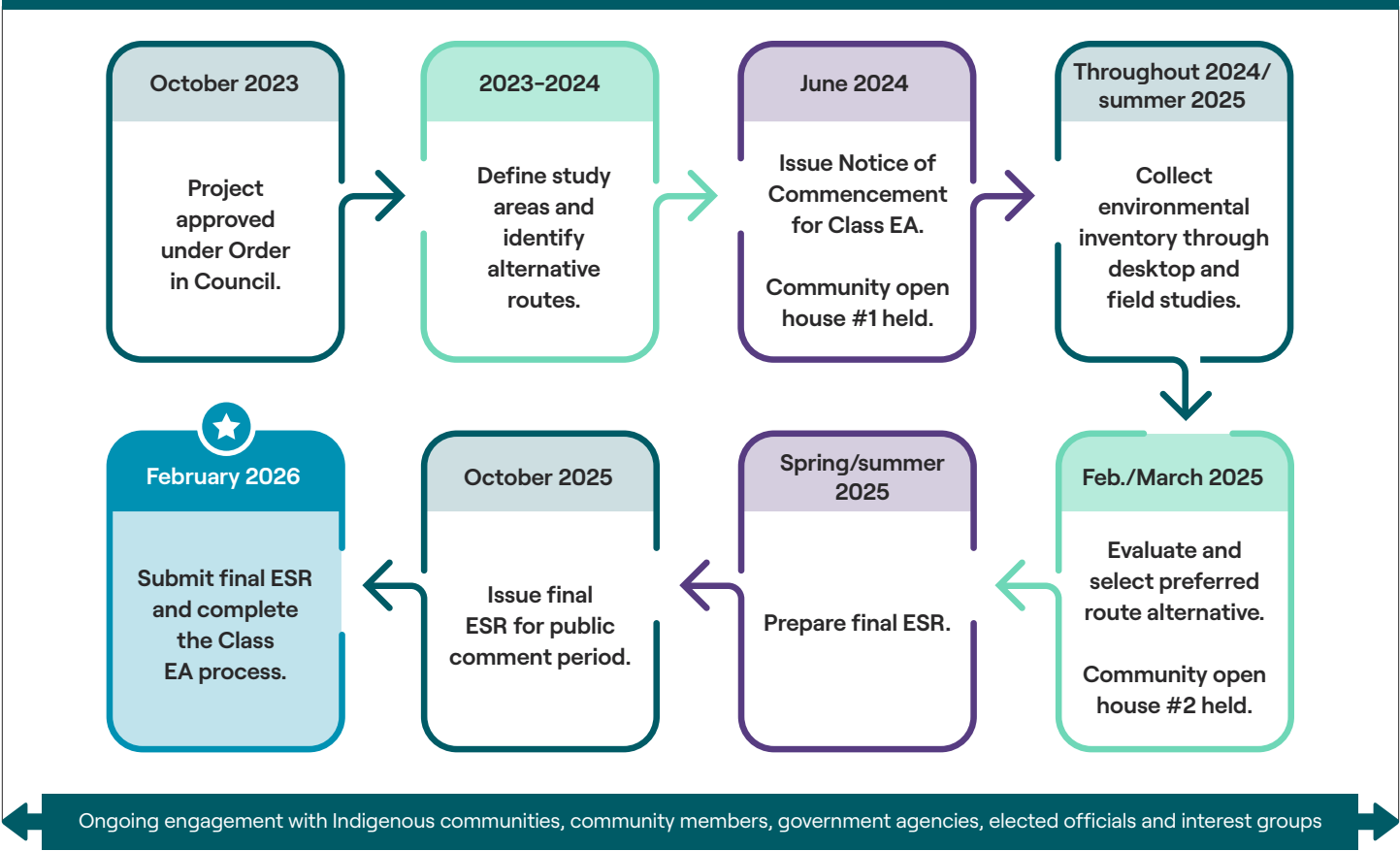
This added capacity is enough to power a city bigger than Peterborough.



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 ESR process, including public input, is an important part of the overall Class EA process.

How the process works



The final 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



Working in partnership with Indigenous communities

Hydro One, in collaboration with Indigenous communities, will continue to meet eastern Ontario's long-term electricity demands as we develop the Durham Kawartha Power Line project.

The project follows Hydro One's industry-leading First Nation Equity Partnership Model and will offer proximate First Nations 50 per cent of equity on the transmission line component of the project.

Hydro One is closely collaborating with First Nation partners on the project, including Alderville First Nation, Beausoleil First Nation, Chippewas of Georgina Island First Nation, Chippewas of Rama First Nation, Curve Lake First Nation, Hiawatha First Nation and Mississaugas of Scugog Island First Nation.

By continuing to work collaboratively with communities in the development of our construction mitigation plans, we will deliver the project in a manner that limits or avoids effects to the environment and communities. Our continued work with communities will allow us to better understand traditional knowledge, areas of cultural significance and cultural values.

The partnership includes feedback and direct engagement through in-person community open house sessions. These sessions are especially important for building trust, sharing clear information and providing community members with opportunities to ask questions and be heard.

What we've heard



Economic participation supports project advancement while enabling long-term community wellbeing.



Acknowledgement of First Nations Free, Prior, and Informed Consent (FPIC).



Connection between habitat impacts and Indigenous Rights impact pathways.



Protect wetlands and woodlands that are culturally significant.



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.



Engagements with
Indigenous communities



Interactive map



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



**Notices, newspaper
and social media ads**



Ongoing calls and emails



Meetings with stakeholders, local
elected officials and interest groups

Comments from Rights Holders and stakeholders as well as responses from Hydro One are included in Section 3 of the final ESR.

What we heard during the comment period

During the comment period for the draft Environmental Study Report (ESR), Hydro One received important feedback from First Nation communities, the Ministry of the Environment, Conservation and Parks, the Ministry of Natural Resources, the Ministry of Citizenship and Multiculturalism, property owners, interest groups and the public.

These groups shared the importance of:

- Cultural significance of all woodlands and wetlands for Indigenous rights, culture and practices
- Connection between habitat impacts and Indigenous rights impact pathways
- First Nations meaningful participation in review and development of construction and environmental management plans
- Acknowledgement of First Nations Free, Prior, and Informed Consent (FPIC)
- Regional ecological enhancement, restoration and long-term habitat improvements, with an emphasis on early planning and local partnerships
- Development of mitigation measures to address potential impacts to significant wildlife habitats, including deer wintering yards
- Detailed commitments around buffers, setbacks and no-go zones for protection of natural environment and significant habitats

We also answered questions about:

- Hydro One's enhanced community benefit and biodiversity initiative planning and implementation
- Construction timelines and impacts to property and recreational spaces
- Hydro One's procurement process, contracting strategy and opportunities for industry participation
- Health and safety related to electromagnetic fields from the project
- Impact to property value and compensation
- Construction methods and temporary disruptions

They also shared:

- Support for collaboration with local conservation programs
- Interest in opportunities to work with Hydro One to identify prospects for additional mitigation, including contributions to local protection projects, improving quality of restoration through use of available native seed
- Requests to further consider and assess construction and operational noise and air emissions
- Calls for more robust protection for Species at Risk (SAR)
- Request targeted field surveys following detailed design where required



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/EMF](https://hydroone.com/EMF)

Comments from the comment period and responses from Hydro One are included in Appendix A-6 of the final ESR.



Our actions

Hydro One will take key actions based on the feedback received to date. These actions are reflected in the final ESR.

We will:

- Implement a biodiversity initiative for the project to help address concerns raised, and to provide additional habitat benefits to the region
- Continue working with property owners to understand the features of their property in relation to the project, and to mitigate concerns
- Continue to work with Indigenous communities, municipalities, local communities and stakeholders to identify opportunities for the project to enhance community benefits
- Conduct targeted field surveys for species at risk, culturally significant species and important wildlife habitat, along with additional pre-construction screenings where potential impacts are identified

Related specifically to collaboration and partnership with First Nations, we will:

- Incorporate input and recommendations from First Nation partners into mitigation measures, including species at risk
- Share environmental management plans, testing results, spill reports and other requested information with engaged First Nations
- Collaborate with First Nations and contractors to develop a restoration plan for deer wintering habitats
- Seek to meet our goal to achieve the agreement and support articulated in the United Nations Declaration on the Rights of Indigenous Peoples (UNDRIP) through Free, Prior and Informed Consent (FPIC), using FPIC as both a goal and guide in every engagement

Local community participation is integral to infrastructure development. We will integrate feedback directly into the design, development, construction, operations and maintenance of this project as we continue to invest in Ontario and ensure energy is available when and where it is needed.

– Sonny Karunakaran, Vice President, Strategic Projects and Partnerships, Hydro One





Overall conclusions

The report concludes that potential effects can be managed with standard environmental practices. We will take steps to avoid or reduce impacts on agriculture, plants and wildlife, water and overall quality of life.

Overall, the project’s benefits outweigh potential impacts as it supports Ontario’s current and future electricity needs and economic opportunities in the region.



Several Hydro One initiatives conserve and protect Ontario’s biodiversity, such as planting to create habitat for pollinators, creating nesting platforms for birds and working with local organizations to restore wetlands.



Discover more at
HydroOne.com/DKPL

Key actions Hydro One will continue to take

Ongoing First Nation collaboration and partnership

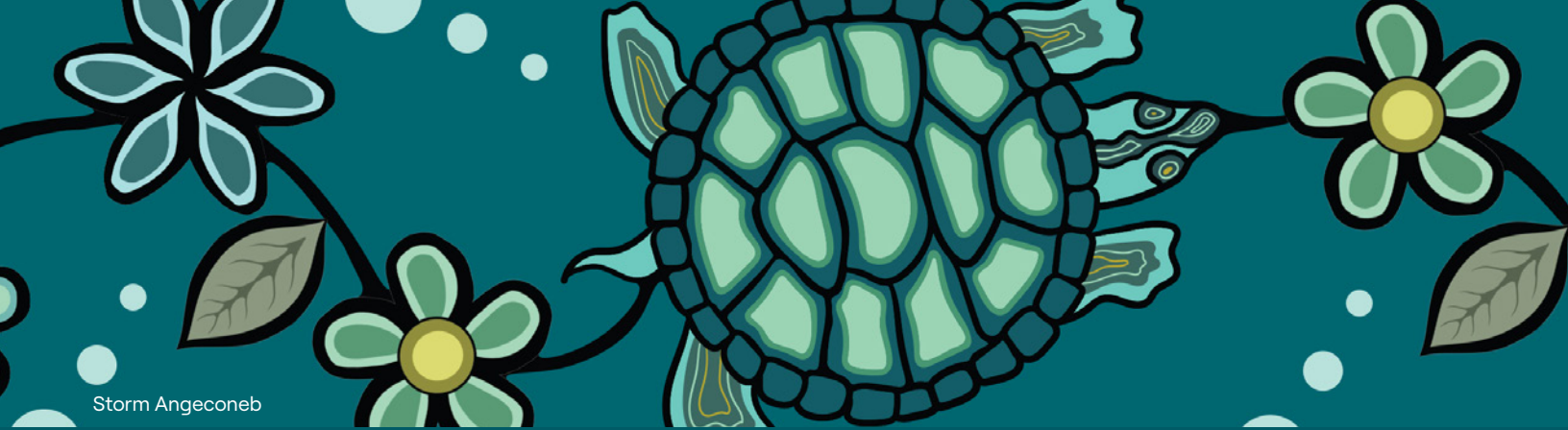
Hydro One will continue to work in partnership with First Nations and partner with First Nations through Hydro One’s Equity Partnership Model and ongoing collaboration with communities to mitigate impacts to First Nation rights, culture and land use throughout construction and operation of the project.

Working with property owners

We will continue to work closely with property owners to understand the unique features of their property. We will work closely with impacted property owners to find solutions.

Biodiversity initiative

We will implement a biodiversity initiative for the project to help address concerns raised and to provide some additional habitat benefits to the region. Hydro One will engage with First Nations, municipalities, conservation authorities, environmental interest groups and any other interested parties to discuss the implementation of the biodiversity initiative.



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. Some communities identified the importance of protecting endangered Black Oak Savannah and Tallgrass Prairie ecosystems, used for harvesting and traditional practices and habitats for culturally significant species.

What we'll do

- Continue working with First Nations and Indigenous communities as partners, sharing updates and addressing concerns together.
- Incorporate Traditional Ecological Knowledge into planning when shared.
- Share Environmental Management Plans for community review and input.
- Continue archaeological assessments and involve Indigenous communities in monitoring and reviewing the work.

Key takeaway

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 final ESR.

Explore more about what we studied and found in Section 4.4.1.4 and 7.8 of the final 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

As most of the project uses an existing transmission corridor, long-term habitat changes, or disruption to habitats and species at risk are expected to be limited.

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.

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 final ESR.



Water quality

What we found

The project is within the Oak Ridges Moraine, an important ecological area. Project activities, including 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 in place.
- 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, and minimizes vegetation removal.

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



Air quality and noise

What we found

Project activities may result in temporary dust, emissions and increased noise for nearby residents. Measures have been identified to limit or reduce 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 where we work.

Implosive splicing is a process to join pieces of wire. While it creates noise, it will happen at predetermined times during construction.

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



Highlights: socio-economic environment



Agricultural lands and farm operations

What we found

Transmission lines are compatible with most agricultural land uses. Some construction activities will lead to crop removal or affect soil quality. While most of these 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 final ESR.



Land use and recreation

What we found

The project crosses both urban and rural areas with varied land uses. Construction may temporarily affect traffic, access to community resources, and noise levels.

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 final 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.
- Continue to engage and collaborate with First Nation communities throughout field survey activities and the review of archaeological findings and 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 collaborate 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 conducting 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 final 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 final 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 the historical and ongoing pressures on Indigenous communities' lands and resources resulting from settlement and development activities. We will continue to work closely with Indigenous communities and partners throughout the project to understand concerns, incorporate Indigenous knowledge and identify measures to avoid, minimize and mitigate potential impacts where possible. The project arises from an identified regional electricity system need, as determined by the Independent Electricity System Operator (IESO), with Hydro One directed by the Government of Ontario through an Order in Council to develop, construct and operate the new transmission line. In carrying out this work, the CEA focused on the immediate project area and known developments, 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 final ESR.



Final Environmental Study Report

Hydro One has completed the final Environmental Study Report for the Durham Kawartha Power Line project and submitted it to the Ministry of the Environment, Conservation and Parks. This marks the end of the Class Environmental Assessment process.

View the final ESR online.
HydroOne.com/DKPL



For questions or comments, contact Hydro One
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1-877-345-6799 | Community.Relations@HydroOne.com



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