

**Overbrook to Riverview Transmission Line Upgrade
Class Environmental Assessment
Frequently Asked Questions from the Public Information Centres,
September 2016**

On September 21, and September 22, 2016, Hydro One hosted two Public Information Centres (PICs) on the Overbrook to Riverview Transmission Line Upgrade project. The purpose of the PICs was to provide information on the proposed project and to gather input from the public. The following sections provide answers to frequently asked questions from the PICs.

Environmental Assessment Questions

What is a Class Environmental Assessment?

The Overbrook to Riverview Transmission Line Upgrade project (the project) is being planned in accordance with the approved *Class Environmental Assessment (Class EA) for Minor Transmission Facilities* process, which is an approved process under the provincial *Environmental Assessment Act*. The Class EA was developed as a streamlined process to ensure that minor transmission projects that have a predictable range of effects are planned and carried out in an environmentally acceptable manner. The Class EA process identifies potential project effects relating to a range of issues including businesses and residences, planned land uses and existing infrastructure, environmentally significant areas, and archaeological and heritage resources. Consultation with the public is an important part of the Class EA process.

For more information on the Class EA process, visit our website at:

www.HydroOne.com/Projects/OverbrooktoRiverview

How can I provide feedback on the proposed project?

Hydro One welcomes input at any time throughout the Class EA process. There are a number of ways to be involved and provide your feedback.

- Call the Community Relations toll free number 1-877-345-6799 at any time
- Email Community.Relations@HydroOne.com at any time
- Sign up for the project contact list to receive project related information
- Submit comments through the project website

www.HydroOne.com/Projects/OverbrooktoRiverview

In addition, Hydro One organized and/or attended a number of consultation events and individual meetings, including:

- Meetings with local councillors and the local MPP

- Hydro One offered one-on-one meetings to residents living adjacent to the transmission corridor and in August 2016 met with 37 residents to discuss vegetation removals required for the project. Concerns and feedback received were documented for the consultation record.
- Public Information Centres were held on September 21 and 22, 2016 in the project area
- Hydro One delivered a presentation on October 26, 2016 at the Annual General Meeting of the Riverview Park Community Association.

A summary of the consultation process, the feedback received, and how Hydro One will respond to issues and concerns raised, will be documented in the draft Environmental Study Report (ESR) which will be available for public review and comment.

What is the next step in the consultation process?

As part of the consultation process, a draft Environmental Study Report (ESR) will be made available for a minimum 30-day public review period to begin in January 2017. The draft ESR will be posted on Hydro One's project website, and hard copies of the report will be available for viewing at various locations in the community, such as public libraries or community centres. Details of the public review process will be communicated through advertisements in local newspapers, the project website, and notifications to local residents and the project contact list.

What is the recourse if I feel my concerns are not addressed?

Hydro One will respond to and make best efforts to resolve any issues raised by concerned parties during the public review period for the draft ESR. If Hydro One cannot satisfy your concerns, you may submit a Part II Order request to the Minister of the Environment and Climate Change seeking a higher level of assessment (an Individual Environmental Assessment) of the proposed undertaking. The Minister will assess the request and the resolution proposed by Hydro One and will determine whether or not the project requires additional assessment through an Individual Environmental Assessment.

What happens once the Class EA process is completed?

Hydro One plans to host a pre-construction Public Information Centre (PIC) in the community to provide detailed information about the planned construction schedule and activities and answer any questions the community may have. Invitations and advertisements for the PIC will be issued prior to the event.

How were the Public Information Centre (PIC) venues selected?

On September 21 and September 22, 2016, Hydro One hosted two PICs on the project. The venue locations were carefully selected to accommodate local residents and businesses in the study area. Some of the considerations were to minimize travel time, accessibility, seating availability for resting and room capacity.

Why does Hydro One use an Open House format for its PICs?

Hydro One prefers a more informal Open House format for its PICs because this allows attendees to focus on the topics that are most important to them and to speak with the appropriate subject matter experts. Representatives from Hydro One, Hydro Ottawa and the Independent Electricity System Operator (IESO) were in attendance at the PICs to speak with attendees. Hydro One did not make a formal “town hall” style presentation at the PICs, as this often does not allow for optimal conversations between individuals and project representatives, and some people are not comfortable speaking about their concerns in a public forum.

What information was provided at the PIC?

A set of 25 display panels were presented to allow attendees to obtain information about the proposed project, such as:

- Details on the proposed project
- The Class EA process including consultation activities and field studies
- General information on construction methods which may be used for the proposed project
- Next steps in the planning and approvals process
- How interested parties may provide input on the proposed project

The PIC display panels can be viewed at www.HydroOne.com/OverbrooktoRiverview.

Project Need and Engineering Questions

Why is this project needed?

As Ottawa grows, so does its need for reliable electricity. The Overbrook to Riverview transmission line upgrade is identified in the Ottawa Area Integrated Regional Resource Plan (IRRP), developed by representatives from the Independent Electricity System Operator, Hydro Ottawa and Hydro One to address the growing electricity needs of central Ottawa. Detailed information on the Ottawa Area IRRP is available through following link:

www.ieso.ca/Pages/Ontario's-Power-System/Regional-Planning/Greater-Ottawa

While customers in the project area are served by Hydro Ottawa, Hydro One is responsible for delivering an adequate, safe and reliable supply of power from its high-voltage transmission system to Hydro Ottawa for distribution to local homes, businesses, and community facilities.

What considerations led to selecting this corridor for the transmission upgrade?

The Ottawa Area IRRP analyzed technical feasibility considerations such as the length of the circuit and the required capacity when determining the location of this transmission upgrade. The other potential route that was considered would have been four times longer and would not have provided enough capacity to reinforce the electricity system in central Ottawa. More information about this decision is available on page 42 of the IRRP.

Has Hydro One considered burying the transmission line?

It is Hydro One's policy to build all transmission lines above ground unless no space is available or technical constraints do not allow overhead facilities. The cost of burying a transmission line is typically 5 – 7 times higher than building overhead.

Generally in the electricity industry, the cost of expanding the electricity system is based on a "beneficiary pay" principle. Since the cost of upgrading this transmission line will be borne by all Hydro Ottawa customers, Hydro Ottawa would have to decide if all its customers should subsidize the higher cost of burying the transmission line.

What criteria does Hydro One use to determine the transmission structure placements?

Hydro One takes into account a number of technical and environmental considerations when identifying structure placements. Some of the considerations include, existing structure locations and the area needed for their removal, new structure heights, span between structures, topography and soil conditions, road crossing clearances, traffic impacts, business and residential impacts, and environmental constraints.

At the PICs, Hydro One presented a map showing proposed locations for the new structures. Steel poles are being proposed to replace the existing lattice steel and wood pole H-frame structures. Input received will be taken into consideration before finalizing the engineering design. The map presented at the PIC is also available on the project website www.HydroOne.com/Projects/OverbrooktoRiverview.

With the addition of the second 115 kilovolt circuit on this corridor, are Electric and Magnetic Fields (EMFs) expected to change?

Hydro One's calculations indicate that electric and magnetic fields (EMFs) on the transmission corridor between Overbrook TS and Balena Park with the new line will be reduced compared to the EMFs from the existing line. This is as a result of two factors: 1) the addition of the second circuit will reduce the current flowing in each circuit, resulting in reduced EMFs; 2) EMF strength decreases rapidly with increasing distance from the source, hence, installing taller structures will result in reduced EMFs at ground level.

What does science say about the potential health effects of EMF?

Hydro One looks to the scientific expertise of organizations such as Health Canada and the World Health Organization to assess the scientific studies and provide advice and guidance. Health Canada monitors scientific research on EMFs and human health as part of its mission to help Canadians maintain and improve their health. Health Canada's conclusion about EMF is that *"there is no compelling scientific evidence that EMF in living and school environments, regardless of locations from power transmission lines, cause ill health."* EMFs are found everywhere electricity is used and come from home appliances, computers, office equipment, wiring in our homes and workplaces, and electric power facilities, such as substations, transmission lines and distribution lines.

Additional information on EMF and related links is available through the Hydro One website below:

www.HydroOne.com/OurCommitment/Environment/Pages/ElectricandMagneticFields.aspx

Vegetation Removals

How much vegetation will Hydro One remove from the transmission corridor as a part of this project?

In response to feedback received from one-on-one meetings with adjacent property owners in August 2016, Hydro One modified its approach to vegetation removal on the transmission corridor to reduce the immediate change for those who live adjacent to the corridor. Where possible, Hydro One will try to leave vegetation along the corridor edges that would not interfere with the construction activities. The corridor is mostly 30 metres wide; and approximately 20 metres along the centre will be used for construction to install a temporary gravel access road. Vegetation blocking access along the corridor will be removed.

The hedges on the corridor at Coronation Ave and Bathurst Ave create privacy and screening for local residents. Removing these hedges will open the corridor to others and increase traffic noise.

Hydro One understands this concern. We seek to balance our operational and safety requirements with the community needs. However, the removal of the vegetation at these road crossings is essential to allow safe and unencumbered access for construction vehicles, and allow the line of sight needed to erect the new towers and pull the new conductor (wire) onto them.

After the project is completed, will vegetation left on the corridor remain untouched in the future?

Hydro One is responsible for keeping its transmission corridors free and clear of physical obstructions and tall or fast-growing (incompatible) vegetation to ensure the safe and reliable operation of its power lines, unimpeded crew access for emergency repairs and public safety. Vegetation maintenance on transmission corridors occurs on a six to eight year cycle. At each cycle, vegetation conditions are assessed by our forestry experts and maintenance is performed to ensure safe clearances between vegetation and the energized wires until the next scheduled maintenance cycle.

Transmission corridor maintenance is an ongoing program, separate and distinct from capital project work which might involve the construction of new facilities or upgrading of existing facilities, such as the Overbrook to Riverview Transmission Line Upgrade project. Hydro One, in consultation with members of the community as part of this Class EA process, has agreed to modify its approach to vegetation removals for this project, removing vegetation in the construction zone and leaving vegetation along the edges of the corridor to be assessed at the next vegetation maintenance cycle.

Private Gardens on the Transmission Corridor

Will Hydro One remove all the gardens from the corridor for construction of this project?

The primary purpose of the transmission corridor is for electricity transmission and distribution and, as such, it is at Hydro One's sole discretion to determine what will be allowed on the corridor lands. Private gardens are not authorized on transmission corridors.

Hydro One will not actively remove gardens that are outside of the construction zone for this project. However, Hydro One cannot guarantee that gardens on the corridor will not be damaged due to the construction activities, even those on the edge of the corridor. For this reason, we urge residents to transplant gardens onto their private property.

Will Hydro One allow community members to plant on the corridor after construction?

On provincially owned corridors, such as this electricity corridor between Overbrook TS to Balena Park, private garden plots are an unauthorized use. After construction, if the community wishes to establish a community garden on the corridor this would have to be done in partnership with the City of Ottawa. The City of Ottawa would have to be willing to license the corridor lands for such purposes under the Provincial Secondary Land Use Program, and Hydro One would have to agree to this use.

Can the corridor be used for allotment gardens with raised beds available for residents? This has been done in Kanata North near Morgan's Grant neighbourhood/Klondike Road.

The transmission corridor that crossed Klondike Road is land owned by the City of Ottawa, and Hydro One has an easement to operate and maintain its transmission lines on this property. The City of Ottawa, as the land owner, is responsible for granting permissions for the use of City owned property.

The Overbrook to Riverview transmission corridor lands are owned by the Province of Ontario and managed by Hydro One. On Provincially owned corridors, individual gardens are not permitted. However, following the construction of this project, the City of Ottawa may submit an application to establish a community garden Under the Provincial Secondary Land Use Program. The application will be reviewed by Hydro One and if approved, the City would be able to manage a community garden under the terms of their License Agreement.

Natural Environment

The trees and hedges along this corridor are important for bird nesting and wintering. How will Hydro One ensure the biodiversity of this corridor is not damaged?

Hydro One always strives to avoid and mitigate effects to the natural environment and to restore areas that are temporarily affected during construction. Hydro One has modified its vegetation removal approach to limit the removal of the number of trees and hedges for the construction of the proposed project. Hydro One will comply with applicable legislation, such as the *Migratory Birds Convention Act*.

What is the restoration plan after construction?

After the construction is completed, Hydro One's restoration plan for the parts of the corridor disrupted by construction will be to reseed with a grass mix, which is consistent with the current appearance of the corridor and adjacent parks. Provided the restored area of the corridor remains free of encroachments after construction is completed, Hydro One will have a contractor cut the grass on a regular schedule.

Can the corridor be converted to a bee pollinating highway?

Some residents have expressed that they would like to see the corridor turned into a meadow with pollinator flowers. However, many residents have indicated that they prefer the appearance of cut grass and flat surface for this corridor. While Hydro One has considered reseeding the areas disturbed by construction with pollinator grass mix, Hydro One is planning to reseed with a native grass mix and maintain it (mow) to be consistent with the appearance of the adjacent parks in the project area.

Construction

When will details of the construction schedule and activities be available?

Once the Class EA has been completed, detailed engineering and construction planning will begin. Details will be made available at a pre-construction PIC in spring 2017. Information shared at the PIC will include, construction activities, timelines, equipment used, construction hours, construction route, what residents could expect and who to contact if they have any questions or concerns. In early spring 2017, local residents will receive an invitation from Hydro One with the PIC details.

How long will construction take?

Hydro One plans to begin the preliminary site-preparation activities for construction starting in spring 2017. The project is expected to be completed by fall 2018. Work at any given location will be intermittent during the construction period.

Will construction be noisy?

There is always a certain amount of noise associated with construction activities. Hydro One will comply with the City of Ottawa's Noise By-law. Heavy equipment such as cranes, bulldozers, excavators, line pullers, and helicopters may be used during construction. More intrusive and noisy activities such as pile driving and blasting are not planned for this project.

Will crews be working over the weekends?

Most work will be carried out during weekdays. If occasional weekend work is required, residents will be notified in advance.

What is the damage claim process if there are any damages to private property as a result of this construction?

We do not anticipate any damage to private property as a direct result of the proposed project. However, if residents would like to request a damage assessment during construction, they can contact Hydro One Community Relations (Community.Relations@HydroOne.com or 1-877-345-6799) for additional information. Please note, any damage to encroachments or private property located on the corridor is not eligible for compensation. As a reminder, all private property should be removed from the transmission corridor by March 31, 2017 to prevent it from being damaged.

What measures will Hydro One take to control mud, dust, traffic impacts and other construction related disturbances?

Hydro One follows standard construction practices, and will strive to minimize construction related nuisance effects and disturbances. Standard dust control, street cleaning, and traffic control measures will be implemented during construction.

When will snow be removed from the access road?

Should snow removal be necessary, it will be typically carried out during the early mornings.

Will there be disruption to my hydro, water, gas, internet and cable services as a result of this construction?

Services provided by your local utilities and communication providers will not be impacted as a result of the proposed project.

Will Hydro One have a construction office trailer on site?

A site office will not be necessary for this project as existing local Hydro One office locations will be used for administrative work, crew safety briefings and job planning.

Where will construction workers park their vehicles?

Personal vehicles will normally be parked at one of Hydro One's facilities. During working hours, Hydro One vehicles will be used on the corridor.

How will Hydro One ensure the safety of the community during construction?

During construction, the transmission corridor will be an active construction zone. To ensure public safety, fencing will be installed to identify the work zone and restricted areas, including the laydown/staging area in Balena Park. For safety reasons, we ask that everyone stay clear of the construction zone. Hydro One will also put appropriate traffic controls in place when equipment is being transported in and out of the corridor to minimize traffic impacts and ensure pedestrian safety.

Will access to Balena Park and Cecil Morrison Park be affected?

Hydro One will ensure residents continue to have access to these parks by either establishing temporary pathways or having flag persons available to facilitate safe crossing.

Will this transmission line upgrade affect the value of my property?

This transmission corridor has been in operation for a number of decades and will continue to be in operation post-construction. The physical presence of the corridor within the community will largely remain the same post-construction as will its influence on property values in the area.

Will my property taxes be impacted as a result of this project?

The assessed value of your property is determined by the Municipal Property Assessment Corporation, which considers a number of property specific and locational factors. The municipal tax rate is determined by the City of Ottawa, based on its requirements, and is applied to the assessed value of your property to determine your property taxes. Individual property taxes are not expected to change as a result of this project.

Operational Questions

Is there potential for the transmission structures to fail?

Hydro One's transmission towers are designed in accordance with Canadian Standards Association (CSA) standards to withstand severe weather conditions such as high winds and ice accumulation on conductors. In many cases, our design criteria exceed CSA requirements. Should extreme weather conditions prevail, transmission structures are designed to buckle or crumple in the direction of the right-of-way. The tension of the conductors (wires) pulling between towers also ensure they will buckle in the direction of the right-of-way. To date, there has never been a failure of a steel pole transmission structure, such as the ones Hydro One is proposing to use on this project.

Will the new towers sustain earthquakes?

At this time there is no design code or requirement for seismic load (earthquake load) for transmission structures. It is not a design consideration in Canada, or even in California or Japan where earthquakes are more common. However, the transmission structures are designed to be flexible and would absorb the force of most earthquakes.

Will there be a flashing light at the top of the tower?

At this time, we do not anticipate that lighting will be a requirement for these steel pole structures.

What type of base will the tower have?

The proposed steel pole structures will have a narrow base in comparison with the existing lattice tower structures. The footings for the steel pole structures will be reinforced concrete. Typically, the visible part of the footings will be approximately three metres in diameter and half a metre above ground. However, these details could be subject to change based on the geotechnical report and finalized engineering design.

Will the new lines emit more noise?

Under certain conditions, transmission lines may emit noise called the corona effect. For this project, Hydro One will use larger conductors than the existing ones which will reduce the noise level associated with the transmission lines.

How high will the new steel poles be?

The height of the poles will vary depending on their location and the topography. The conceptual design anticipates pole heights to vary between approximately 40 and 49 metres.

What are the future plans of the corridor? Will Hydro One upgrade the line to 230kV in the future?

At this time there are no plans to add an additional circuit in the corridor or to operate the circuits at a higher voltage. However, transmission corridors are subject to change based on future needs.