

Gatineau End-of-Life Study Public Webinar #1- April 14, 2022

Feedback

The IESO hosted a public webinar for bulk planning in east Ontario, the Gatineau Corridor End-of-Life (EOL) study, on April 14, 2022 to seek input on the draft information and recommendations. The presentation material and recorded webinar are available on the [engagement webpage](#).

This document summarizes feedback received under the following key themes:

- [Study Options and Recommendations](#)
- [Study Scope and Considerations](#)
- [Study Implementation](#)

The IESO appreciates the input, which will be considered as the Gatineau Corridor study recommendations are finalized. Feedback was received from the following parties and the full submissions can be viewed on the engagement webpage:

- [City of Oshawa](#)
- [Grid Reliability Consulting](#)
- [Haudenosaunee Development Institute](#)
- [Ontario Clean Air Alliance](#)
- [Peter Drury](#)

Theme 1- Study Options and Recommendations

Feedback Provider: Grid Reliability, Haudenosaunee Development Institute, and Peter Drury

Feedback: The IESO should consider alternative transmission designs and solutions for Eastern Ontario focused on supplying the Greater Ottawa area with locally generated electricity.

With the increasing load in the Ottawa area, it would be more efficient to have the generation from hydro-electric facilities along the Ottawa and Madawaska rivers re-routed to directly supply the Ottawa load rather than transmitting it hundreds of kilometers back to the GTA through the Gatineau Corridor. Perhaps the study should examine the enhancements that would be required to connect these hydroelectric facilities directly into the Ottawa area.

Feeding the demand in Ottawa and Eastern Ontario from generation sources that are as close to these load centres as possible is desirable both from an efficiency and environmental point of view. This would involve building new transmission connecting Chat Falls to Merivale to Hawthorne to St Lawrence or some version thereof. The advantage of this local approach would be to avoid any proposed corridor routing that runs lines west through environmentally sensitive areas only to reroute power back east to meet local Eastern Ontario demand. If we can reduce the stress on the ecosystem of the Algonquin Park region, while more efficiently transmitting Ontario's energy resources, we will create a sustainable economic development win.

The IESO should review whether the continued operation of the Gatineau Corridor is in the best interest of Eastern Ontario and all of Ontario. From an environmental, efficiency, and reliability perspective, a robust transmission grid in the Greater Ottawa area may be a better solution than refurbishment of the Gatineau Corridor.

The IESO should seek proposals from independent transmission developers that could plan, develop, and construct new cost-effective facilities by 2028.

Response: The Gatineau Corridor EOL study primarily aims to address load security issues forecasted in the Peterborough to Quinte West and Ottawa areas over the near-, mid-, and long-term. Planning criteria is focused on ensuring that the transmission system will operate reliably over a broad spectrum of system conditions and following a wide range of probable system contingencies. This broad spectrum of system conditions includes low water (drought) conditions whereby the output from hydro-electric facilities such as those on the Ottawa and Madawaska rivers are producing at low levels. For this reason, re-routing this generation to supply Ottawa is not a viable alternative to refurbishing of the Gatineau Corridor transmission lines or the other options considered in this study.

Theme 2- Study Scope and Considerations:

Feedback Provider: Ontario Clean Air Alliance

Feedback: In reference to findings in the IESO's "Ontario-Quebec Interconnection Capability: A Technical Review" report, Ontario could increase its ability to import Quebec waterpower by 2,000 MW by building a new inter-tie at Chats Falls and by upgrading the Gatineau Corridor between Chats Falls and the GTA. If the Gatineau Corridor EOL Study recommendations to re-build the Gatineau transmission corridor are implemented, what additional actions would be needed to increase Ontario's ability to import an additional 2,000 MW from Quebec via Chats' Falls and the Gatineau Corridor? What would be the approximate capital costs of these additional measures?

Response: The IESO's "Ontario-Quebec Interconnection Capability - A Technical Review" report¹ primarily presented the capability of Ontario's transmission system to import from Quebec using the existing interties with Quebec. The maximum capability that would be available ranges from 500 MW to about 2,050 MW depending on the transmission improvements made in the Ottawa and Cornwall sub-systems. Beyond this level, a new intertie between Ontario and Quebec would be required.

The report described three illustrative options for a new intertie and expansion of Ontario's transmission system required to import an additional 2,000 MW from Quebec. One of the options considered is a new Ontario-Quebec intertie near Chats Falls Transformer Station (TS). The intertie would comprise of a HVDC ("High Voltage Direct Current") transmission line from Chats Falls TS to the GTA East. The new transmission line would require rebuilding and repurposing one of the existing Gatineau Corridor transmission lines.

The Gatineau Corridor EOL Study recommendations involve the refurbishment of existing Gatineau Corridor transmission lines, which typically focuses on replacing the overhead conductors, insulators, and steel structure repairs only where required. The purpose of the refurbishment is to maintain the existing functionality of the corridor. The work described in the Interconnection Capability report to build a new intertie at Chats Falls would still be required.

The Interconnection Capability report quoted estimated costs of up to \$1.4 billion based on the preliminary study (excludes upgrades potentially needed in Quebec's system).

Feedback Provider: Haudenosaunee Development Institute

Feedback: The IESO should develop options that would allow for the removal of existing transmission lines from Algonquin Park and allow the land to be rehabilitated. It is our opinion that the 230kV lines that form the Gatineau transmission corridor represent a major intrusion into the pristine wilderness that is Algonquin Park.

Slide 39 of the IESO's Gatineau Corridor EOL study presentation states that a new double circuit 230 kV transmission line will be required to secure the loads in the Peterborough/Quinte West area, south of Algonquin Park, irrespective of the future status of circuits T22C and T33E. This implies that the forecast load in Peterborough/Quinte West area can be supplied without any contribution from lines running through the Park.

Since, as far as we are aware, there are no loads within the Park that are supplied directly from the lines that form the Gatineau Corridor, then the only requirement for the continued existence of these lines is to provide a path for the output from the hydroelectric generating facilities on the Madawaska and Ottawa Rivers to reach southern Ontario. If the output from these generating facilities were to be used to supply the local load in the Ottawa area, then there wouldn't be any obvious need for retaining these lines in service. We are therefore opposed to any plan that would perpetuate the existence of the lines that comprise the Gatineau Corridor beyond the southern boundary of Algonquin Park.

Response: The Gatineau Corridor runs in a relatively straight line from Oshawa to Ottawa via Peterborough. This corridor is located southeast of Algonquin Provincial Park and approximately 80 km from the park perimeter. The transmission lines that run through Algonquin Park are part of the Des Joachims to Minden corridor, and are not within the scope of the Gatineau Corridor EOL Study.

¹ The report is available on the IESO's website ([link](#))

In addition, as described on slide 37 of the webinar materials, the five transmission lines in the Gatineau Corridor were screened for possible decommissioning that considered factors such as the availability of cost effective alternatives and the current refurbishment status. Primary reasons for screening these out as part of the assessment are described below.

P15C/C27P: This transmission line is critical for providing supply to the Peterborough to Quinte West area as well as the Renfrew Region. The need for this line is highlighted by the Peterborough to Quinte West transmission issue identified by this study, not only is the line required, there is an existing transmission issue in this area that requires reinforcement.

T32H/C25H and T31H/H27H: These transmission lines are critical for providing supply to Havelock TS.

Feedback Provider: Peter Drury

Feedback: The Hawthorne TS to Merivale TS corridor consists of two transmission lines (two sets of structures) that carry two 500kV circuits from Lennox TS to Hawthorne TS, as well as two 230kV and two 115kV circuits between Hawthorne TS and Merivale TS. There is no reference to the possible catastrophic loss of this entire corridor which would have a devastating effect on the electrical supply to the City of Ottawa. This current study of the facilities forming the Gatineau Corridor appears to present a unique opportunity to examine possible options for mitigating the effect of such a catastrophic loss. Specifically, the option of building a new double circuit 230 kV transmission line from St. Lawrence TS to Merivale TS would help mitigate some of the devastating effects.

Response: Transmission planning is focused on ensuring that the transmission system will operate reliably over a broad spectrum of system conditions and following a wide range of probable system contingencies which include “critical contingencies”. These planning events and performance requirements are established through a number of planning criteria and standards by the North American Electric Reliability Corporation (NERC), the Northeast Power Coordinating Council (NPCC), and the IESO. The planning events covered by the criteria and standards are not intended to cover every possible scenario, but rather are focused on identifying an acceptable level of performance for probable events.

All three options examined as part of the Gatineau Corridor EOL study meet applicable planning criteria and standards. While the current recommendation happens to be the lowest cost option, it's important to note that another reason for selecting this option at this time is to preserve the capacity provided to Ottawa from GTA east, and deferring the need for the St. Lawrence to Merivale transmission line. Beyond the long-term planning horizon (20 years) or under a high growth scenario, the incremental capacity that would be provided to Ottawa with a St. Lawrence to Merivale reinforcement may likely be needed.

Theme 3- Study Implementation

Feedback Provider: City of Oshawa

Feedback: The City of Oshawa is actively planning the development of a number of areas including the Columbus Community and the Kedron Planning area. Any future route of a transmission line must be carefully considered in order to minimize any impacts to the development, the environment, etc. City of Oshawa staff recommend that any future route of a new transmission line, where possible, be located along existing hydro corridors or the Highway 407 East corridor, to minimize impacts.

Once the Gattineau EOL plan is finalized and the preferred solution is chosen (e.g. building a new transmission line from either the Clarrington TS or Cherrywood TS to Dobbin TS), will stakeholders have input on the preferred route chosen for a new transmission line?

Response: The planning and development of new transmission is a lengthy process, involving several stages and takes approximately 7-10 years to complete. Slide 35 of the [public webinar #1 deck](#) provides an overview of this process, key stages, and some of the considerations during the planning portion (IESO-led) and the development portion (transmitter-led).

New transmission lines in Ontario are subject to the [Environmental Assessments Process](#) where line routing will be assessed and evaluated. The environmental assessment (EA) will be carried out by the transmitter during the transmission development phase to select a preferred route. Interested parties will have an opportunity to provide input on line routing to the transmitter as part of the EA. More information about the intended purpose of the EA's consultation process is provided on the [Ontario government website](#).