

York Region Sub-region

Initiating an infrastructure project for addressing electricity needs in the Markham-Richmond Hill area



Background

A reliable source of electricity is essential to supporting community growth – powering homes, schools, businesses, hospitals and transportation. Regional system planning ensures a reliable supply of electricity to regions across the province.

A regional planning Working Group for York Region, consisting of the Independent Electricity System Operator (IESO), Newmarket-Tay Power Distribution Ltd., Alectra Utilities (formerly PowerStream) and Hydro One Transmission and Distribution, has been active since 2011. In April 2015, the IESO released an Integrated Regional Resource Plan (IRRP) for York Region, documenting a 20-year plan developed by the Working Group. That plan provided forecasts of electricity demand growth in the region, identified electricity needs and priorities, discussed potential solutions, recommended near-term actions, and laid out longer-term supply and demand outlooks for the region. In February 2016, Hydro One Transmission completed a Regional Infrastructure Plan (RIP) as a subsequent step in the regional planning process.

Even with the implementation of the near-term actions and on-going conservation efforts identified in the 2015 York Region IRRP, electricity demand growth is expected to exceed the system capability in the Markham-Richmond Hill area in the early 2020s. On April 21, 2017, the IESO, on behalf of the York Regional Planning Working Group, issued a letter of support to Alectra Utilities and Hydro One Transmission, to recommend initiating an infrastructure project for addressing electricity needs in the Markham-Richmond Hill area.

In September 2015, a Local Advisory Committee was formed for York Region to provide advice and recommendations on local priorities, and to help identify ways to engage the broader community in the long-term discussion of electricity needs and solutions for York Region. LAC meetings are open to the public and additional information can be found at <http://www.ieso.ca/get-involved/regional-planning/gta-and-central-ontario/york-engagement>. More detailed information about regional planning activities in York Region and the 2015 York Region IRRP report can be found at <http://www.ieso.ca/get-involved/regional-planning/gta-and-central-ontario/york>.

Frequently Asked Questions

1. What facilities are being proposed, why and when?

A: A new transformer station and associated distribution and/or transmission connection lines will be required to meet the growth projections for the Markham-Richmond Hill area. Some of these growth areas include the Markham Future Urban Area (FUA)¹, the Buttonville Airport redevelopment, new data centers in Markham and Richmond Hill as well as intensification along the Highway 404 corridor and Yonge Street. In order to support this growth, the IESO issued a letter of support on behalf of the York Regional Planning Working Group to Alectra Utilities and Hydro One Transmission to initiate the development work for this new infrastructure. The new station and associated distribution and/or transmission lines is expected to be in-service by 2023.

2. Where will the new station and lines be located?

A: The preferred site for the new station and preferred route for the connection lines will be determined as part of the Environmental Assessment (EA) process, led by Alectra Utilities and Hydro One. During this process, there will be opportunities for the public to provide input on alternative locations for the proposed facilities. Depending on the location of the new transformer station, different levels of transmission and distribution build-out will be required.

3. How long does a project like this take?

A: Typically a project of this scale can take 5-7 years from initial planning until completion. There are many steps involved including development work, approval processes (e.g., the EA process, the Ontario Energy Board (OEB) “leave to construct” process), and construction.

4. How big will the new station and lines be?

A: Specific information about the design of the new station and length of the lines is not available at this time as this will be developed during the environmental assessment phase.

5. What is the cost of this recommendation? Who’s paying for this infrastructure?

A: Detailed studies on the cost of this recommended solution will be undertaken by Alectra Utilities and Hydro One Transmission, and this information will be made available during the project approval processes. Cost allocations will be determined as part of the OEB leave to construct process.

6. Why is the project being developed by Alectra Utilities and Hydro One Transmission?

A: It is the role of Alectra Utilities to deliver power from the Ontario power grid to end users in the Alectra Utilities service area. Hydro One Transmission owns the existing infrastructure corridor and assets, where the project could potentially be sited.

7. Will the new station enable the connection of renewable generation in this area?

A: Yes. Additional generation can connect either to the new station or directly to the connection lines, once they become available.

¹ For more information about the Markham Future Urban Area (FUA), please refer to the City of Markham website: <https://www.markham.ca/wps/portal/Markham/MunicipalGovernment/AboutMunicipalGovernment/MajorCityProjects/NorthMarkhamFutureUrbanArea/>

8. Were Distributed Energy Resources (e.g., Storage, Solar) considered as a solution to the Markham-Richmond Hill area need? Why is this not being recommended?

A: In 2016, Alectra Utilities and the IESO conducted a study to examine the feasibility of implementing residential solar-storage technology in Markham, Richmond Hill and Vaughan. The study confirmed that it is not economically feasible to solely rely on this type of technology to defer infrastructure needs in this area given the magnitude of electricity demand growth in the near term. There may be an opportunity for residential solar-storage technology or other non-wires solutions to play a role in deferring electricity supply needs identified in Northern York Region/Vaughan over the longer term and this is a current topic of discussion with the York Region Local Advisory Committee.

9. What about a gas-fired plant to address the need?

A: Installing local generation is one approach for meeting regional electricity needs. Since local generation would contribute to the overall generation capacity for the province, the generation capacity situation at the provincial level must be considered. Since the province currently has a surplus of generation capacity, installing local generation would add to the provincial generation surplus. As well, new generation would still require a station or a line to be built in order to connect the generator to supply the area. Alternatively, reinforcing the regional transmission and distribution infrastructure will address the regional needs by enabling more power to be delivered into the local area from the rest of the province thereby maximizing the use of existing provincial resources.

10. Has there been any engagement on this before the letter was issued?

A: The IESO, Alectra Utilities and Hydro One have been meeting with municipalities in York Region to discuss the near-term need, including confirming local growth forecasts, outlining the regional planning process and discussing the recommended solution as it was in various stages of development leading up to the letter. It has also been an agenda item for discussion at the five York Region Local Advisory Committee meetings held to date. The IESO, Alectra Utilities and Hydro One will continue to regularly engage with municipalities and the broader community as the process continues.

11. What's the next step in the process? How can I provide my input?

A: The IESO's letter triggers the commencement of development work on the new transmission station and the connection lines. Alectra Utilities and Hydro One Transmission will coordinate their work to develop alternative station and line options. These alternatives will be made available for public input during the EA process. The EA process could be initiated as soon as 2017 and will include many opportunities for interested parties to learn more about the project need and alternatives and to provide input. Ontario Energy Board "leave to construct" approval may be required, and there will be opportunities for input and participation during the OEB's public hearing process.