

Windsor-Essex Region: Ensuring a Reliable Supply of Electricity

Background

The Windsor-Essex region has a long history of agriculture, partially due to its climate (it is the southernmost location in Ontario and Canada) and its close proximity to the Canada-U.S. border, which provides access to international markets.

The IESO is expecting electricity demand in the Windsor-Essex region to double over the next five years due to strong agricultural growth specifically in the Kingsville-Leamington area. The growth primarily comes from expansion in the greenhouse sector and a move to year-round vegetable growing, and to a lesser extent, expansion in the cannabis industry. As a result, the electricity system's capability is forecast to be exceeded as early as 2020, and a number of solutions will be required to manage system reliability.

The IESO has assessed a variety of options to ensure that the region's electricity needs are met reliably and at the lowest cost. Work is underway to ensure a reliable supply of electricity is available so that communities and businesses in the area have the power they need to grow and prosper. The supply solutions, detailed below, include a new switching station, a new transmission line, as well as consumer energy management options. The IESO will continue to support the area's load growth and maintain system reliability as these initiatives are underway.

Supply Solutions

A) PROPOSED TRANSMISSION LINE

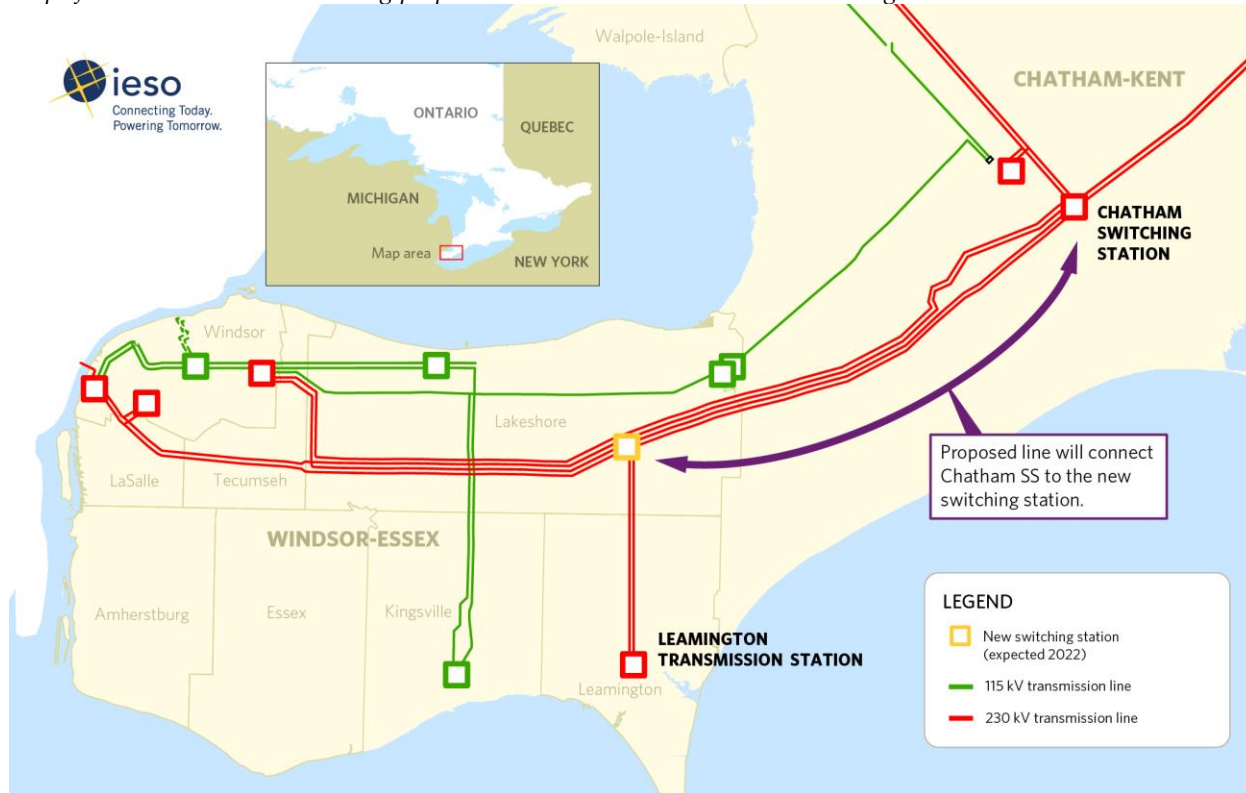
The IESO has [requested Hydro One](#) to develop and construct a new approximately 50-km, double circuit, 230 kV transmission line to bring additional supply to the area. This line is expected to be complete by the end of 2025. The line will connect from Chatham to the proposed switching station north of Leamington.

The approximate locations of these proposed electricity transmission facilities are shown in the map below. The locations are shown for illustrative purposes only, as the specific sites and/or routes have not yet been determined.

B) NEW SWITCHING STATION

The IESO has also previously [requested Hydro One](#) to start development work for a new switching station on the existing 230 kV transmission corridor. This station is expected to be complete as early as 2022. This will help meet electricity needs in the area by supporting additional consumer connections, and is an integral part of the reliable long-term plan to improve supply to the Windsor-Essex region.

Map of Southwest Ontario showing proposed transmission line and new switching station.



Hydro One will begin development work in the coming months, when there will be opportunities for public involvement, including from municipalities and Indigenous communities.

C) ENGAGING WITH COMMUNITIES

The IESO is engaging with a variety of local and regional stakeholders, including local utilities, greenhouse owners, municipalities, and Indigenous communities, to better monitor and understand upcoming opportunities in the region as part of the ongoing [Integrated Regional Resource Planning process for the broader Windsor-Essex region](#). A Kingsville-Leamington Local Advisory Committee explored opportunities for consumer energy management solutions, such as energy efficiency and behind-the-meter generation, to be considered as part of the integrated solution to meet the area's immediate needs. A new regional electricity plan will be completed in Q3 2019 that will include further analysis and additional recommendations to meet the mid- and long-term electricity needs in the region.