

York Region IRRP - Backgrounder

About York Region

The York Region IRRP roughly encompasses the municipalities of Vaughan, Markham, Richmond Hill, Aurora, Newmarket, King, East Gwillimbury, Whitchurch-Stouffville and Georgina. The York Region IRRP area is a sub-region of the GTA North planning region established through the Ontario Energy Board's (OEB) regional planning process.

A portion of Vaughan supplied from the Claireville-to-Kleinburg line is being studied as part of the Northwest GTA IRRP, as this line also supplies loads in the West GTA region.

York Region is one of the fastest growing regions in Ontario. Extensive urbanization in the last several years has resulted in electricity demand growth greater than the provincial average. With a current population of over one million, its electricity demand peaks at almost 2,000 MW. Under the Province's *Places to Grow Act*, York Region is expected to host substantial continued population growth in the coming decades.

The York Region IRRP was developed by a working group composed of the Independent Electricity System Operator, Newmarket-Tay Power, PowerStream and Hydro One Networks Inc.

Recommendations in the IRRP

The implementation of provincial conservation targets established in the 2013 Long-Term Energy Plan (LTEP) is a key component of the near-term plan. Peak-demand impacts associated



York Region IRRP Area

with the provincial targets were assumed before identifying residual needs, consistent with the Conservation First Framework.

In addition to the recommended actions provided in the table below, provincial programs that encourage the development of distributed generation such as the Feed-in Tariff (FIT), microFIT and Combined Heat and Power Standard Offer (CHPSOP) programs also contribute to reducing peak demand in the regions. The LDCs and the IESO will continue their activities to support these initiatives and monitor their impacts.

Timeframe	Need	Action
Near- Term	- Provide additional transformer station supply capability in Vaughan to supply forecast demand growth	- Design, develop and construct new station in northern Vaughan (PowerStream)
	- Meet load restoration criteria in Northern York Region - Increase transmission system capability to supply demand growth, including a new station in Vaughan	- Develop switching equipment at Holland station site (Hydro One)
	- Meet load security and restoration criteria for stations connected to the Parkway Belt in Richmond Hill and Vaughan	- Install in-line circuit switchers on the Parkway-to-Claireville line (Hydro One)
Medium- and Long-Term	- Continued growth is forecast to exceed transformer station capacity in Markham, Vaughan and Northern York Region (2021-2024) - Transmission system supply capability may be exceeded in early to mid-2020s in Markham, Vaughan and Northern York Region	- Undertake community engagement on mid- and long-term needs and options - Monitor demand growth, conservation achievement and distributed generation uptake in the area - Develop community-based solutions - Continue ongoing work to establish joint-use transmission and transportation corridor through Peel, Halton Hills and Vaughan - Initiate the next planning cycle early, if needed, to address medium- and long-term needs

Community, Aboriginal and Stakeholder Outreach

The first step in the engagement on the York Region IRRP was providing information to the municipalities and First Nation communities in the planning area. Presentations were made to the York Region municipal planners and CAOs in the fall of 2014. During these meetings, key topics of discussion included confirmation of the growth projections, discussion of the near-, medium- and long-term needs identified in the Region, a review of the identified near-term projects including those that have already begun due to timing requirements, and a discussion of the possible approaches to address medium- and long-term needs. The identified next steps included monitoring and providing input into the Region's corridor development activities as well as the Regional Official Plan review.

The link between the York Region IRRP and the development of several Municipal Energy Plans (MEPs) in York Region was also identified as an opportunity. A staff member from the IESO and representatives from the LDCs are part of the Vaughan, Markham and Newmarket MEP Stakeholder Advisory Committees and act as a bridge in the continued development of the IRRP and the MEPs. Similarly, the IESO will work with the Chippewas of Georgina Island First Nation to ensure the results of their Community Energy Plan, once completed, are included in the on-going IRRP discussion.

Community engagement will begin following the posting of the IRRP. In spring 2015, the Working Group will host an informational webinar to explain the needs in the area and provide information on the medium- and long-term options. Presentations on the York Region IRRP will also be made to municipal councils and/or staff, First Nation communities and the Métis Nation of Ontario staff on request. A GTA North Local Advisory Committee (LAC) will be established as an advisory body to the Working Group in fall 2015.

About Regional Planning in Ontario

- Regional planning is a process for identifying and meeting local electricity needs and typically focuses on 230 kV and 115kV infrastructure. The objective is to maintain a reliable and cost-effective electricity supply. The IRRP process is an integrated approach, which looks at conservation, generation, wires, demand management and other innovative solutions for the near-, medium- and long-term.
- Regional planning is part of the broader electricity system planning process, which includes the Long-Term Energy Plan which sets the policy framework and targets for resource procurement, bulk system planning which focuses on 230 kV and 500kv transmission lines, and distribution system planning
- Developments over the past few years have changed how regional planning is done. In 2010, the OEB announced an initiative to develop a Renewed Regulatory Framework for Electricity, which concluded that a structured approach to regional planning was needed.

- The process is that Hydro One or the transmitter determines if there are regional electricity needs that require regional coordination. If yes, then the IESO determines which type of study is required. If a more comprehensive study, beyond a simple “wires” (transmission and/or distribution) solution, is required, then the IESO leads the development of an IRRP examining conservation, generation and wires solutions.
- The IRRP addresses the electricity needs of York Region over the next 20 years:
 - It identifies investments for immediate implementation to meet near-term needs, with consideration given to their lead times for development.
 - The IRRP also identifies approaches to meeting medium- and long-term needs, but given forecast uncertainty and the potential for technological change, it maintains flexibility for long-term options and does not commit to specific projects at this time.

Key Resources

York regional planning web page: www.ieso.ca/GTA-North

About the regional planning process: www.ieso.ca/regional-planning

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