

Feedback Form

Regional Electricity Planning in GTA North (York Region) Area – November 26, 2024

Feedback Provided by:

Name: Paul Acchione

Title: Management Consultant

Organization: MIDAC Corp

Email:

Date: December 7, 2024

To promote transparency, feedback submitted will be posted on the [GTA North \(York Region\) engagement webpage](#) unless otherwise requested by the sender.

Following the GTA North (York Region) electricity planning engagement webinar held on November 26, 2024, the Independent Electricity System Operator (IESO) is seeking feedback on the draft electricity demand forecast scenario and Engagement Plan. A copy of the presentation as well as a recording of the session can be accessed from the [engagement web page](#).

Please submit feedback to engagement@ieso.ca by December 17, 2024.

Topic	Feedback
What additional insights, if any, should be considered in the draft forecast scenario?	The possibility of using district heating and cooling systems (DHCSs) instead of electrification for building heating and cooling in higher density urban areas (eg: the 400/407

Topic	Feedback
	<p>area and others) should be considered. The transition from natural gas as the energy source to other non-emitting energy sources can be done in phases over the next 25 years. For example, Markham just announced it is installing a wastewater heat recovery system in their DHCS. OPG is commercializing small modular reactors (SMRs) that are technically capable of supplying combined heat and power in the post 2030 period, provided the SMRs are built to do so.</p>
<p>What areas of concern or interest about electricity should be considered as part of the planning process?</p>	<p>IESO projections for the region suggests a tripling of winter peak load by 2044. Winter peak heating throughout the province will also rise and result in a much greater provincial winter peak load than the summer peak load. Simulation studies show that if all heating loads are electrified the average bulk system operating capacity factor for the province will likely drop from around 65% to about 35%. This will likely cause electricity rates to more than double on a constant dollar basis to pay for the relatively high fixed cost of new low emission capacity for the power system. A heating electrification strategy will cause energy costs to become unaffordable for a significant fraction of the population. Alternatives to heating electrification, where economically practical, need to be considered.</p>
<p>What information is important to provide to participants throughout this engagement?</p>	<p>Cost data from the deployment of DHCSs in northern Europe and Asia should be included in the planning and technical/cost simulation studies. The various options for heat decarbonization should be included in studies with a goal to reduce total energy costs for consumers and to reduce the size of the expansion of the electrical system. The currently projected electricity system expansion if we choose heating electrification is likely to be larger than any prior expansion of the electrical system in the province's history and likely to be impractical by 2050.</p>
<p>Does the proposed Engagement Plan provide sufficient scope and opportunities for input?</p>	<p>Yes, there is sufficient scope and opportunity for input, but the available data is incomplete for stakeholders to make informed inputs on all the practical options for heating decarbonization especially in higher density urban areas.</p>

General Comments/Feedback

It would be very useful if the IESO could provide hourly demand forecasts for future loads until 2045 (or 2050 if possible). Separating the additional future loads into categories like transportation electrification, low temperature building heating electrification and high temperature industrial heating electrification would help both the IESO and other stakeholders evaluate alternative technologies that could meet those energy demands, potentially at a much lower cost to consumers than simple electrification.