

Peel/Halton (GTA West) Integrated Regional Resource Plan

Responses to Public Feedback Received on August 5, 2020 Webinar

The IESO hosted a public webinar for the Peel/Halton (GTA West) Integrated Regional Resource Plan (IRRP) on August 5 to seek input on a range of potential solutions being considered to meet the region's future electricity needs. All interested parties were invited to provide feedback for consideration to inform next steps in the planning process. The presentation material and recorded webinar are available on the [engagement webpage](#). Feedback was received from the following parties and posted on the engagement webpage:

- City of Brampton
- City of Mississauga
- Energy Storage Canada
- Power Advisory LLC
- Power Workers' Union
- Region of Peel
- Town of Oakville

The table below summarizes the themes that emerged from the feedback received and IESO responses. Full comments and links to resources mentioned can be found in copies of the submissions posted on the [engagement webpage](#). The IESO appreciates the feedback received and it will be considered by the Technical Working Group* as its work continues on the development of the Integrated Regional Resource Plan (IRRP) and ongoing engagement activities.

Source	Feedback
Theme 1: Consideration of local developments and official municipal plans	
City of Brampton	The City will soon be commencing work on a Community Energy Plan for the Heritage Heights Community. Is there anything that the City could study as part of that process that could help to inform the IESO's electricity planning process?

*The Peel/Halton (GTA West) IRRP Technical Working Group consists of Alectra Utilities, Burlington Hydro, Halton Hills Hydro, Hydro One Networks, Milton Hydro Distribution and Oakville Hydro Distribution

Source	Feedback
<p>IESO Response:</p> <p>The Heritage Heights development is an important factor in the demand growth forecast for Pleasant TS, which has been identified as a pocket in the regional plan with identified needs. It would be helpful to understand how the Community Energy Plan recommendations will impact the energy density of the planned development, as any recommendations that reduce local energy density will help to slow demand growth in the pocket. Note that the regional planning process relies on local distribution companies to provide demand forecasts for their service territories so coordination between Brampton’s municipal energy initiatives and Alectra Utilities (your distributor) will be very important. Additionally, any recommendations/targets for distributed energy resources should be coordinated with your distributor to ensure that distribution system planning can identify synergies or limitations associated with their connection.</p>	
<p>City of Mississauga</p>	<p>City staff want to better understand how the IESO is accounting for the growth forecasts issued by the Ministry of Municipal Affairs and Housing, as within the last two months updated growth forecasts were released and the planning horizon was extended to 2051. The City’s Official Plan will also not have updated growth forecasts approved by Council until after 2022 when the Region of Peel completes their Municipal Comprehensive Review and assigns local growth forecasts.</p>
<p>Region of Peel</p>	<p>The Region has recently updated growth forecast information as part of its municipal comprehensive review growth management focus area. It was updated to reflect the land use implications of the provincially significant employment zones introduced in the 2019 Growth Plan. The updated 2041 allocation and new 2051 allocations to come are key characteristics that should be considered in determining the most appropriate options to be selected to meet local electricity needs.</p>
<p>IESO Response:</p> <p>The IESO will continue to work with local distribution companies (LDC) in the region to ensure that demand as a result of economic growth, or otherwise, is accounted for as part of the demand forecasting that serves as a key input into IRRP development. As part of the GTA West Technical Working Group, LDCs consider municipal growth plans and forecasts in the development of the 20-year demand forecast for their service territory and are best suited to determine how these growth plans and forecasts impact their aggregate load. Since an extended land use forecast plans beyond the 20-year electricity planning timeframe, it does not have a significant impact on this current electricity planning process which considers 20 year outlooks, with planning cycles conducted every five years, at minimum. The IESO will continue coordinating with all LDCs (and in this case, Alectra Utilities) to ensure the employment factors brought forth by the municipality are considered as part of the electricity demand forecast. These activities will be</p>	

Source	Feedback
<p>closely observed in between formal planning cycles as part of ongoing monitoring to better understand and determine the impact on local electricity needs and the regional ability to meet them.</p>	
<p>Theme 2: Alignment and coordination of other planning and projects within the region</p>	
<p>City of Brampton</p>	<p>If the proposed transmission corridor as part of the NW GTA Transportation Corridor Identification Study does not come to fruition, how can local development respond to ensure continuity of communities that may potentially be built?</p>
<p>IESO Response:</p> <p>The North West GTA Transmission Corridor Identification Study seeks to protect land collocated with the transportation corridor so that future transmission expansion can be accommodated, if required, with minimal disruption to the surrounding communities. The IESO, through both regional planning and provincial transmission system planning, will monitor the forecast load growth to ensure that any needed additional transmission infrastructure can be triggered in a timely manner. Ensuring that your distributor (Alectra Utilities) is aware of future development plans and involved in municipal planning activities will be important since regional planning relies on local distribution companies to provide demand forecasts for their service territories. The IESO also remains committed to ensuring that local municipalities are aware of planning initiatives in the region to be kept up to date on plan recommendations to help inform municipal land use planning activities.</p>	
<p>City of Mississauga</p>	<p>The impact of the proposed transmission corridor as outlined in the parallel Northwest (NW) GTA Transportation Corridor Identification Study to developable lands in Ninth Line Lands, Meadowvale Business Center Corporate Park, and nearby Lisgar GO MTSA should be considered in the regional electricity planning process, particularly as the City works with the Region of Peel to allocate the 2019 Growth Plan's growth forecasts and plan its land budget.</p>
<p>IESO Response:</p> <p>Thank you for the feedback. This input will be provided to the NW GTA Transmission Corridor Identification Study team as part of the study underway between the IESO and Ministry of Northern Development and Mines (MENDM).</p>	
<p>Region of Peel</p>	<p>The Region encourages any electricity wires infrastructure options to collocate with any transportation infrastructure, as being studied in the NW GTA Transportation Corridor Identification Study to limit land use planning, environmental, and agricultural impacts of new electricity infrastructure needed.</p>

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<p>IESO Response:</p> <p>As discussed in past webinars, the North West GTA Transmission Corridor Identification Study is a separate initiative underway to identify and preserve lands in the anticipated event that new transmission is needed in the future; collocation of potential new transmission infrastructure with transportation infrastructure is a key objective of this study. This is a joint study being conducted by the IESO MENDM. A notice was recently posted on the Environmental Registry of Ontario (ERO) for a 45-day comment period ending May 7, 2020, inviting input on the proposed narrowed area of interest as well as on the guiding principles which will be used to identify the lands. For further information or to register your interest in being engaged in this study on an ongoing basis, email NWGTATransmissionCorridor@ontario.ca.</p>	
<p>Theme 3: Consideration of non-wires alternative as part of the recommended solutions into the IRRP</p>	
<p>City of Brampton</p>	<p>The City is a proponent of the non-wires/demand-side option for the Pleasant pocket of the transmission corridor that runs through Heritage Heights. Heritage Heights is anticipated to be an urban near-net zero community that will rely on a renewable energy distribution system. Alternative energy solutions are being studied through a Community Energy Plan for the area. Should this study recommend a system that deviates from traditional energy distribution, how would this impact the IESO study?</p> <p>Can the system rely on any combination of options to address the character of the built environment that it runs through or services?</p> <p>More information is needed to describe the centralized local generation and non-wires/demand-side option and how these may materialize in the built environment; whether or not they deviate from the proposed linear transportation corridor, and any other implications they may have from a city-building perspective.</p> <p>How does the study factor in the desire of local municipalities to move to renewable energy distribution systems?</p>
<p>IESO Response:</p> <p>The IRRP will consider local municipal plans for renewable energy systems and their potential for addressing local reliability needs to the extent they are funded and be considered as firm investments from a planning perspective. If the Community Energy Plan results in reduced utilization of the IESO-controlled grid (with lower station capacity demand for example), the IESO will work with the distributor to adjust the demand forecast and future investments accordingly.</p>	

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	<p>In terms of considering local generation or non-wires alternatives in the IRRP, the IESO will first perform a high-level screening exercise looking at the relative cost and feasibility of these options compared with wires options. If the local generation or non-wires options merit further detailed study, more information will be communicated.</p> <p>Generally speaking, without specific policy direction or technical constraints, the IESO is technology agnostic and will select the most cost effective and feasible option for electricity ratepayers that adequately addresses the need.</p>
Energy Storage Canada	<p>Implementing energy storage technologies should be considered as an option to meet electricity needs, as it has local and provincial system benefits, including cost savings on electricity infrastructure through the deferment of transmission and distribution assets, environmental benefits, reduced transmission congestion benefits, increased export and import value benefits and power quality improvement benefits. An evaluation of appropriate energy storage resources and technologies should be considered as part of the development of the GTA West IRRP.</p>
<p>IESO Response:</p> <p>Energy storage, among other non-wires options, will be considered in the GTA West IRRP for its potential to defer wires expenditure. In considering feasible options to address needs, the primary focus is placed on cost-effectiveness. While value stacking can impact the cost-effectiveness and provide signals for investment/operation of distributed energy resources, this is being studied as part of the OEB’s Responding to DERs policy initiative (https://www.oeb.ca/industry/policy-initiatives-and-consultations/responding-distributed-energy-resources-ders) which the IESO supports and will continue to participate in.</p> <p>The IESO also has an Energy Storage Advisory Group to help inform the integration of storage resources across IESO-led initiatives.</p>	
Power Workers’ Union (PWU)	<p>Rebuilding the Meadowvale x Hurontario transmission line is the most effective solution to the capacity and load security issues in the region, also improving the flexibility of Ontario’s low-cost bulk system for meeting both near and long-term electricity needs. Given the lead time for the project, the PWU also supports demand-side solutions, such as energy efficiency, which can manage peak demand needs in the interim.</p>
<p>IESO Response:</p> <p>The Meadowvale x Hurontario option offers both local system reliability and bulk system benefits. The IESO will coordinate between bulk system planning studies and this IRRP to ensure that both perspectives are considered.</p>	

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Region of Peel	<p>The Region is in the process of updating existing and developing new Regional Official</p> <p>Plan policies that supports the reduction of greenhouse gas emissions and the mitigation and adaptation to climate change. The Region is also a member of the City of Brampton's</p> <p>Community Energy and Emissions Reduction Plan (CEERP) Task Force and supports the Task Force in their recognition that the Heritage Heights community represents the best opportunity to achieve a net-zero emissions community through implementation of the CEERP. The Region and IESO should continue to explore opportunities to ensure that the future infrastructure and energy requirements for planned communities in this area successfully facilitate the integration of renewable and alternative energy systems.</p>
<p>IESO Response:</p> <p>The IESO will continue to consider Community Energy Plans as part of the planning process and integrate recommendations and plans as applicable. In terms of facilitating the connection of distributed energy systems, an important first step is to involve your local distribution company to understand the benefits and constraints associated with connecting to the distribution system.</p>	
Region of Peel	<p>Will any of the options presented cause limitations to planned growth in the Region? Moderating demand seems like a positive option from a climate change and energy usage perspective, but it needs to be considered against the electricity needs of potential employers.</p>
<p>IESO Response:</p> <p>No, the options considered in the IRRP are meant to ensure that there is sufficient supply capacity to support the forecasted growth in the region. Demand-side options (also know as non-wires alternatives) are intended to moderate the electrical demand. Measures such as targeted energy efficiency programs or distributed energy resources can be considered as ways to support greater electricity demand due to economic growth or increased employment. The IRRP studies the cost effectiveness and efficacy of these measures to address local reliability needs given their magnitude, timing, and load characteristics.</p>	

Source	Feedback
Town of Oakville	There should be a focus on quantifying the impacts of non-wires alternatives/demand-side options as laid out in the municipal-level Community Energy/Climate Action Plans for the Halton pocket. These plans include common solutions such as scaled housing and building retrofits, district energy, local renewable generation and storage. There is opportunity and benefit for IESO to directly link demand-side options to the actions within these existing plans and further build upon them.
<p>IESO Response:</p> <p>The IRRP considers municipal level community energy and conservation/demand management plans in the development of the demand forecast. The IRRP relies on local distribution companies to interpret these plans and provide demand forecasts for their service territory. The IRRP will perform a high level screening exercise for demand-side options considering their costs compared with available wires options as well as the magnitude and timing of the need.</p>	
<p>Theme 4: Cost benefit analysis</p>	
City of Brampton	Local municipalities should be consulted when conducting the economic analysis for the IRRP. The development potential/market potential of land should be considered as part of the cost-benefit analysis when determining the financial feasibility of the various options.
Town of Oakville	How will cost effectiveness be measured as part of the options evaluation? Does the evaluation pertain only to costs incurred by IESO or to other sources as well?
<p>IESO Response:</p> <p>The IRRP's cost evaluation is made on the basis of cost to Ontario electricity ratepayers. Nominal land value is included in capital cost assumptions used for options analysis.</p>	
<p>Theme 5: Data inputs</p>	
Power Advisory LLC	More detail on how peak demand is exceeding the thermal limits (e.g., by how many MWs, how many hours, what are the limits, etc.) would be helpful in understanding how a non-wires alternative resource would need to behave in order to address these system needs. Please provide tables in Excel or CSV containing the underlying data for the summer peak forecasts for the Pleasant and Halton pockets of the system (as shown in slide 14 and 16 of the webinar presentation).

Source	Feedback
	<p>IESO Response:</p> <p>Please find the CSV file attached. Note that we are in the process of generating more detailed demand information based on hourly load profiles which seeks to quantify the magnitude, frequency, and duration of the need for the IRRP. This information will be shared when it is available and posted as an appendix item to this feedback response document.</p>
Town of Oakville	Ensure that localized and regional climate change projections (i.e. precipitation, wind, extreme weather) are embedded into forecasting scenarios when assessing local needs.
	<p>IESO Response:</p> <p>Regional planning ensures a cost-effective, reliable electricity supply is carried out in accordance with the regulated electricity system planning criteria for Ontario. These criteria include the use of an electricity demand forecast that reflects extreme weather conditions in various scenarios to ensure a reliable supply of electricity for the province. The criteria also consider the system’s ability to respond to disturbances, such as the loss of a transmission line or transformer, which may be caused by extreme weather events.</p>