

Kitchener-Waterloo-Cambridge-Guelph Integrated Regional Resource Plan

Responses to Public Feedback Received on December 5, 2019 Webinar

The IESO launched a new engagement initiative to seek input into the development of an Integrated Regional Resource Plan (IRRP) for the Kitchener-Waterloo-Cambridge-Guelph (KWCG) region. As part of this engagement initiative, a public webinar was held on December 5, 2019 that presented information on the regional electricity planning process, electricity demand forecast, high level needs, and the proposed [engagement plan](#). 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:

- [Sandra Bray](#)
- [City of Waterloo](#)

The table below summarizes the themes that emerged from the feedback received and IESO responses. The IESO appreciates the feedback received and 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: Impacts of climate change, energy conservation and associated initiatives	
Sandra Bray	Clarify the impact of increased electrification aimed at reducing fossil fuel use and how it is considered in the 20-year planning cycle. In the development of demand forecast, allowance for increasingly hot summers was included, however increasing electrification for energy use as fossil fuel reductions increase, was not mentioned.

*The KWCG IRRP Technical Working Group consists of Ale ctra Utilities (Guelph), Energy+, Halton Hills Hydro, Kitchener-Wilmot Hydro, Waterloo North Hydro, Centre Wellington Hydro, Wellington North Power, Milton Hydro and Halton Hills Hydro

Source	Feedback
City of Waterloo	The City of Waterloo’s Energy Conservation and Demand Plan that forecasts and outlines reduced electricity use in City-owned facilities and increased electrification in its vehicle fleets should be considered.
<p>IESO Response:</p> <p>Waterloo North Hydro has witnessed steady trends in the electricity load in the City of Waterloo area over the past 20 years even with the impact of Conservation and Demand Management (CDM) and renewable generation. The electricity demand forecast for this current planning cycle has taken these trends into account in conjunction with other factors as described in the December 5, 2019 webinar including major local developments, some of which are addressed below.</p> <p>The adoption of electric vehicles, as well as other types of electrification (e.g. natural gas to electric heating), may be affected by future changes in the economy, technology, incentives and legislation. In addition, the electrification of vehicle fleets presents some challenges when considering the impact on the electricity demand forecast due to the uncertainty of timing, usage behaviour (e.g. how and when they will be charged) and infrastructure required. Such projects will be closely observed to better understand these factors and determine the impact on local electricity needs. To date, there have not been enough electrification activities observed that would notably change the electricity peak demand forecast being developed for the KWCG IRRP. The IESO will continue to engage closely with communities to stay informed of these projects.</p>	
City of Waterloo	Consideration should be given to various local and regional initiatives that will enable meeting greenhouse gas reduction targets and address the growing role that a sustainable electricity network will have in meeting local, provisional and national commitments.
<p>IESO Response:</p>	

Source	Feedback
<p>The IESO will continue to work with local communities and interested parties to look for synergies between options to address regional electricity needs, and activities being committed to for the purposes of meeting greenhouse gas reduction targets/commitments. IRRP recommendations will primarily seek to ensure reliability and cost effectiveness.</p>	
<p>Theme 2: Consideration of local developments</p>	
<p>City of Waterloo</p>	<p>A key development project that should be considered is the West Side Employment Lands (WSEL) that consists of 45.26 ha of city owned land predominately designated Business Employment in the City's Official Plan. The City of Waterloo will be developing approximately 38 hectares of land into a business employment park. Subject to planning approvals, construction of the park will commence in 2020 and it is anticipated that the first building permits will be issued in 2021.</p>
<p>IESO Response:</p> <p>The expected electricity growth from the WSEL development has been considered. A high load growth factor has been assumed for the service area encompassing this development. Also, given the zoning of this area and its intended use, it is expected that the existing electricity infrastructure would be sufficient to supply the growth. This development will continue to be observed as the types of tenants and timing of construction are key inputs to better understand its impact to the electricity demand forecast for the broader KWCG region.</p>	
<p>City of Waterloo</p>	<p>New developments in north-west Waterloo's remaining large greenfield areas should be considered.</p> <p>The Beaver Creek Meadows area is 150 hectares with the potential for 7,201 people and jobs in 2,319 total units (predominantly low density residential housing). Several plans of subdivision have been submitted and are at various stages of review.</p> <p>The Erbsville area consists of nearly 70 hectares in total (Erbsville and Erbsville South). Erbsville South is undergoing a public planning process that is expected to be considered by City Council in Q1</p>

Source	Feedback
	2020. Detailed land use planning for the remainder of Erbsville will be undertaken within the next five years.
<p>IESO Response:</p> <p>Similar to the WSEL, Beaver Creek Meadows and Erbsville are located in an area of the City of Waterloo where a high load growth factor has been assumed. Therefore, these areas and developments are inherently included in the electricity demand forecast. Additionally, the developments will be primarily residential uses that will be phased in, which have been reflected in the load growth in the forecast.</p>	
<p>Theme 3: Impact of Distributed Energy Resources</p>	
Sandra Bray	Clarify how neighbourhood energy systems such as distributed energy will be considered for the KWCG area.
<p>IESO Response:</p> <p>Distributed energy systems will be considered in the planning forecasts to conduct studies to identify potential options to help address specific electricity system needs, when technically feasible. For example distributed energy systems that are contracted and expected to be in-service over the IRRP horizon (i.e. 20 years) have been incorporated into the electricity demand forecast. Systems that are known to the local distribution companies in the KWCG region are also considered. Distributed energy systems may also be considered as potential options to help address identified electricity system needs in the region. If determined to be feasible and cost effective, such options may be recommended as solutions to help address the needs.</p> <p>The IESO would appreciate any information on neighbourhood energy systems, such as technology type, capacity, and expected operation date for consideration in the IRRP.</p>	