

Renfrew Region Electricity Planning Public Webinar #2 – July 16, 2022

Response to feedback received

The IESO hosted a public webinar for the Renfrew Region long-term electricity plan – Integrated Regional Resource Plan (IRRP) – on July 16, 2022 to outline detailed electricity needs seek feedback on the potential options to meet the region’s future electricity needs. The presentation material and recorded webinar are available on the [engagement webpage](#).

Feedback was received from the following parties and the full submission can be viewed on the engagement webpage:

- [Shirley Dolan](#)
- [Ruby Mekker](#)

The section below summarizes feedback received.

Theme 1- Capability and effectiveness of wind and solar resources

Feedback Provider: Ruby Mekker

Feedback: The IESO should not consider any wind or solar projects for additional power. The unreliability of wind and solar are documented on Rodan Energy Solution’s Sygration website¹. Ontario can generate enough reliable nuclear, hydro, and gas to meet Ontario’s needs now and in the future.

IESO Response: Ontario has a clean electricity grid with a range of diverse resources, including hydro, nuclear, natural gas and renewables (i.e. wind and solar). Each resource generates electricity differently and has unique operating characteristics. Because no single resource can meet all of the system’s needs at all times, maintaining a diverse supply mix is an effective way to ensure the ongoing reliability of Ontario’s electricity system.

As the feedback suggests and information from the referenced website support, the generation output from wind and solar can vary substantially across seasons and time of day. The amount of energy wind turbines and solar panels produce depends on a number of factors. Wind tends to

¹ Historical Ontario generation data is available on Rodan Energy Solution’s Sygration [website](#).

produce the most during cold months in the winter, spring and fall and their output varies based on geography. Solar is particularly valuable in the summer months on hot, sunny days, helping to off-set increased air conditioning use, which reduces strain on the electricity grid.

While capacity represents the maximum amount of electricity that the system can supply at any given time, the actual amount of energy produced varies. For example, while natural gas represented about 28 per cent of Ontario's total transmission-connected capacity in 2021, it only accounted for about nine per cent of actual generation. Wind on the other hand represented about 13 per cent of Ontario's total transmission-connected capacity in 2021, and also accounted for about nine per cent of actual generation. So while variable resources such as wind and solar are limited in their ability to help address peak capacity requirements, they do contribute to addressing the system's overall electricity requirements.

Also note that the IESO is projecting average annual growth in electricity demand of roughly two per cent over the next twenty years, along with nuclear refurbishments and retirements and a number of expiring generation contracts. The IESO is currently undertaking a series of procurements to address these supply shortfalls.

Theme 2 – Identification and comparison of options to address system needs

Feedback Provider: Shirley Dolan

Feedback: If wind turbines are to be included as a possible solution, they should be thoroughly investigated as to their appropriateness. A cost-benefit analysis should be required before energy from wind is considered.

IESO Response: Through various planning processes (regional planning and bulk planning), the IESO assesses the electricity system and identifies forecast electricity needs. The IESO then develops a range of potential solutions (resource, transmission, non-wire alternatives, energy efficiency, etc.) aimed to address these needs and recommends the best solution taking into consideration factors such as cost effectiveness, robustness, timeliness, etc. The IESO takes a technology agnostic approach when making recommendations to address system needs.

A number of capacity needs have been identified in the Renfrew region. These needs are local in nature, transmission lines and/or transformer stations situated within the region are not sufficient in accommodating the peak demand forecast for the region. A number of options have been identified aimed at addressing the forecast capacity need. Wind and solar were not identified as potential solutions in this study due to the nature of the need (peak capacity need) and the cost effectiveness of the solution (wind and solar would have to be over-sized and combined with other technologies due to intermittent nature of wind and solar).

Theme 3 – Other factors impacting the design of the electricity system

Feedback Provider: Shirley Dolan

Feedback: There is significant pressure from some jurisdictions (e.g. Ottawa) to move forward with large wind farm installations for mostly political reasons. There must be an honest cost-benefit analysis before energy from wind is considered.

IESO Response: As noted in the earlier response, the IESO takes a technology agnostic approach when identifying options to address electricity system needs, and recommendations are made taking into consideration factors such as cost effectiveness, robustness, timeliness, etc. However, as technology advances and the power system evolves, customers and community stakeholders will have greater choice in how they meet their energy needs. In some instances, this could result in a customer or community stakeholder choosing to pursue a solution that is more expensive than the most cost-effective option. In these events, guidance around cost responsibility has been provided in a document – “2017 Notice of Proposal to Amend a Code” by the Ontario Energy Board (OEB)². Through a recommendation by the OEB’s Regional Planning Process Advisory Group³, the OEB will be creating a new Bulletin clarifying the guidance.

Feedback Provider: Ruby Mekker

Feedback: The contract for the Nation Rise Wind Project was approved by the IESO when it met ZERO of the four basic requirements.

IESO Response:

The IESO has two responsibilities that are distinct from each other. The first is to source generation as part of long term planning which involves detailed technical analysis and the cost of the project is one of the leading criteria in deciding what should be chosen. The second is to carry out government policy directed by the ministry. From time to time, the Ministry of Energy issues directives and letters to the IESO articulating government policy⁴. In 2014, the IESO (formerly Ontario Power Authority) was directed by the Minister of Energy to proceed with the Large Renewable Procurement I. Nation Rise Windfarm was successfully awarded a contract as part of that procurement process. The IESO is not clear on exactly what is being referred to by the “four basic requirements”.

² The document “2017 Notice of Proposal to Amend a Code” is available on the Ontario Energy Board’s website ([link](#)).

³ More information about the Regional Planning Process Advisory Group’s recommendation is available on the Ontario Energy Board’s website ([link](#)).

⁴ More information regarding Ministerial Directives is available on the IESO’s website ([link](#)).