

Feedback Form

Regional Planning Process Review Update – August 25, 2022

Feedback Provided by:

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Following the August 25, 2022 webinar on the Regional Planning Process Review, the Independent Electricity System Operator (IESO) is seeking feedback from participants on the hourly demand profiling methodology, as well as the non-wires alternatives (NWA) options analysis in Integrated Regional Resource Plans (IRRP).

The IESO will work to consider feedback and incorporate comments as appropriate and post responses on the engagement webpage.

The referenced presentation can be found under the August 25, 2022 entry on the [DER Roadmap webpage](#).

Please provide feedback by September 16, 2022 to engagement@ieso.ca. Please use subject: *Feedback: Regional Planning Process Review Update*. To promote transparency, this feedback will be posted on the [DER Roadmap webpage](#) unless otherwise requested by the sender.

Thank you for your time.

Hourly Load Forecasting

Topic	Feedback
What other data or considerations should we include in hourly load profiling?	<p data-bbox="831 226 1520 340">Energy Storage Canada (ESC) supports the adjustments to hourly load forecasting discussed by the IESO.</p> <p data-bbox="831 390 1520 772">For regional planning to be effective, transparent, and receive broad support from stakeholders ESC maintains that hourly demand profiles must be shared publicly. This will provide insight into conclusions the IESO draws on system needs, and provide potential solutions (e.g., energy storage resources) with valuable information to refine project attributes and capabilities. In particular, ESC recommends the following data be provided publicly for download in a readable format:</p> <ul data-bbox="880 785 1520 1768" style="list-style-type: none"><li data-bbox="880 785 1520 898">• Hourly demand profile projections be provided for 3rd, 50th and 97th percentile as developed by the IESO<li data-bbox="880 907 1520 1096">• Hourly demand profiles should be provided for each station. If there are confidentiality concerns, the IESO could group stations into batches to hide commercially sensitive information<li data-bbox="880 1104 1520 1692">• Historic hourly consumption data by stations should be published for the past 10 years. If stations cannot be shared, small areas representing 3 to 4 stations should be created for the Ontario power system. Example of hourly load data by Planning Area and Planning Region by the Alberta Electricity System Operator (AESO) can be found here (https://www.aeso.ca/market/market-and-system-reporting/data-requests/hourly-load-by-area-and-region/). Note, AESO divides the Alberta power system into 6 regions and 42 planning areas, see link (https://www.aeso.ca/assets/Uploads/Planning-Regions.pdf)<li data-bbox="880 1701 1520 1768">• 31 years of historic weather data used in the load forecast should be published publicly

Non-Wires Options Analysis

Topic	Feedback
<p>Are there any other NWAs or opportunities that should be considered in the IRRP's options analysis? How can the options analysis methodology be improved?</p>	<p>The Achievable Potential Study (APS) for DERs and NWAs are helpful guides to determine the potential for those solutions. APS are not usable for economic or technical solution analysis for DERs and NWAs. The project economics DER capabilities and reliability service offer price are dependent on many factors that are not captured or available from an APS. These factors include market conditions (e.g., capital markets, financing costs, etc.), customer engagement (i.e., ability to engage existing and new customers to determine interest and needs to participate in NWAs), and technology advancement (e.g., flexible demand from home appliances). Overall, for NWAs and other DER opportunities to support the Ontario power system, the IESO must begin to consistently seek price discovery for the services they desire. Price discovery requires engagement with service providers, flexibility on service agreement terms, and financial support or incentives for project development spending. Price discovery is specifically important to understand the unique costs and capability in the Ontario electricity market.</p>

Topic	Feedback
<p>Are there operational considerations that should be accounted for when assessing non-wires solution that relies on a dispatch component? For example, does the current storage sizing approach sufficiently account for how it could be operated in today's system? If not, what improvements would be needed?</p>	<p>ESC believes the IESO is not the appropriate agency to assess non-wires solution project economics or operating capabilities. For example, the IESO does not have any commercial development experience as a system operator. There is limited experience in permitting, constructing, operating, and maintaining DERs. Further, technology costs and capabilities are evolving rapidly. Levelized Cost analysis is typically dated and not an accurate measure of future costs that would be put in place for future power system needs. Finally, ESC strongly believes the IESO should focus on risk allocation between service providers (e.g., energy storage resources) and rate-payers. Reliability service agreement for non-wires solutions should provide flexibility for operational decisions and service provision in exchange for fixed payments over a specific term (e.g., 10-years). Failure to provide services should have clearly defined penalties and costs so investors and project operators can appropriately make informed decisions. The IESO already does this for wires investments where Transmitters and Distributors understand the requirements of their system offerings, funding structure under rate-regulation and the penalties for poor reliability.</p>

General Comments/Feedback

ESC believes the IESO's proposed approach for NWAs option assessment and analysis is lacking and will not result in the expected benefits for Ontario rate-payers. The IESO is attempting to perform analysis of market participants and service providers for which they are poorly suited. Further, the IESO is relying on a Technical Working Group that is composed of only rate-regulated utilities. These entities, while extremely knowledgeable in existing power systems and wires solutions, are not an appropriate group to solely draw on for input related to NWAs. Instead, the IESO should create a separate NWAs technical working group, or including NWAs members in the Technical Working Groups.

Another issue is that the IESO is focused on trying to compare NWAs to wires solutions under situations that highlight the drawbacks of wires solutions. For example, wires investments require long-term

financial commitment to the preferred solution, increasing the risk that error in demand forecast will result in underutilization or inappropriate sizing for system needs. Instead, IESO should recognize the value of NWAs to provide flexibility for the IESO to manage planning uncertainty.

To address many of the issues, ESC recommends that the IESO consider a two stage procurement process to explore NWAs offerings in regional planning. The first stage would be a simplistic call for solutions within a focus area of regional planning identified as requiring investment based on Needs Assessment report. Each proponent interested in offering a solution would be provided the opportunity to submit a limited page proposal (e.g., 10-pages) outlining the cost, capabilities and attributes of their solution. For energy storage resources, this could include a high-level \$/MW-year cost, maximum capacity and duration of output at max capacity, along with connection location or general area available for development. The information submitted would not be binding on the proponent, but could be used to inform a price ceiling or limits for the second stage of the procurement. To incentive participation, the IESO could require only proponents that submitted in the first stage to participate in the second stage. The information submitted would provide the IESO with insight into the NWAs options and allow a decision to either abandon NWAs in favour of wires solution, or move on to a second stage procurement. Under the second stage, the IESO would seek specific needs with binding bid for project design, capabilities and cost. ESC recommends that the IESO maintain flexibility in the second stage to allow proponents to propose different term lengths, project attributes and price structures. Risk of operation should be left with project owners with penalties for failure to perform. Overall, ESC believes a process like this would provide valuable insight into NWAs and add robustness to the IESO's regional planning process.