

East Lake Superior Regional Electricity Planning Public webinar #3 – February 11, 2021 Responses to feedback received

The IESO hosted a public webinar for the East Lake Superior long-term electricity plan – Integrated Regional Resource Plan (IRRP) – on February 11, 2021 to provide an overview of the results of the options analysis and seek input on draft recommendations. The presentation material and recorded webinar are available on the [engagement webpage](#).

Feedback was received from the following party and posted on the engagement webpage:

- [Energy Storage Canada \(ESC\)](#)

This document summarizes the key themes that emerged from feedback received and IESO responses. The IESO appreciates all of the input, which has been considered in the finalization of the IRRP recommendations.

Economic Analysis of Options

Feedback:

The IESO states an estimated NPV of \$250M for a non-wires solution and a requirement of 3-5 years of lead time (see slide 17 of February 11, 2021 presentation). The IESO has provided no details on this analysis including input assumptions, modeling parameters, and outputs.

ESC requests that the IESO publish their analysis for the \$250M NPV conclusion, including:

- Overnight capital cost
- Fixed and variable operating & maintenance costs
- Financing costs for projects
- Discount rate used in NPV analysis
- Development timeline

IESO response: The IESO recognizes the value of providing this information to stakeholders to build an understanding of the evaluation of options that lead to plan recommendations. The details surrounding the evaluation of the non-wires alternatives, including local generation, are provided in Section 7.1.2 of the IRRP, and in Appendix C.

Non-wires Options

Feedback:

Ontario is rapidly approaching a resource adequacy need in the mid-2020s. There are provincial benefits to siting non-wires solutions in East Lake Superior that can offer supply to the province and the local region.

Energy storage resources, either stand-alone or paired with other generation resources in a hybrid structure, are a valid option to consider. If the IESO has considered energy storage, the IESO should publish their assumptions and analysis to determine if they are appropriately reflecting current market conditions. For example, the 3-5 years lead time does not align with current development timelines for new storage resources of 6-18 months.

Energy storage costs are falling rapidly. The best option for the IESO to determine the cost of deploying energy storage in the region is to seek price discovery through a procurement mechanism. The IESO should have a Call for Capacity to understand what projects and offerings are available. The results will be more fine-tuned and reflective of current market conditions and financing costs compared to a desktop analysis completed by the IESO.

IESO response: The IESO appreciates these insights provided by ESC on the cost and lead time with respect to new storage resources. As noted in Section 7.1.2 of the IRRP, the cost of a new combined cycle gas turbine (CCGT) facility was used as the basis for the local generation option given the magnitude and characteristics of the need in the ELS region (ie., both peak capacity and energy need). A CCGT facility was assumed to be the least cost resource for meeting this need and other options were thus screened out on that basis.

Future Planning and Engagement

Feedback:

ESC is concerned that the IESO Technical Working Group does not include any non-wires solution expertise. This includes experience in developing, constructing, financing, and operating non-wires solutions including energy storage. The IESO should convene a non-wires solution working group, either provincially or regionally, that can advise the IESO on existing barriers & solutions for the IESO to address between regional planning processes.

The East Lake Superior Technical Working Group requires accurate pricing information for non-wires solutions. One idea would be to conduct a two-part regional capacity auction. The first stage would be initiated at the start of a regional planning cycle. The regional capacity auction would follow a similar process to the current capacity auction but would allow the IESO to exit the commitment if the need does not materialize. This would allow the IESO to understand the cost of demand response/capacity additions that could be assessed at a high-level to traditional wires solutions. The 2nd stage would be initiated if the IESO believes non-wires solutions are the preferred solution. The 2nd stage could be targeted to areas with constraints and would allow bidders to adjust their offering and prices. The 2nd stage would also promote increased competition that would likely lead to even lower prices for capacity in the system. This approach is similar to how wires solutions are developed (i.e., high-level price estimate followed by more refined pricing once a preferred solution has been identified).

IESO response: The IESO acknowledges and appreciates the feedback provided by ESC with respect to the evolution of the consideration of non-wires alternatives. This feedback is broadly applicable to the regional planning process, and relates to some of the recommendations in the IESO's Regional Planning Process Review Report (<https://www.ieso.ca/-/media/Files/IESO/Document-Library/engage/rpr/rprp-20210204-final-report.ashx>). For this reason, the IESO has considered this feedback as part of the engagement on the report's recommendations available at the following engagement page: [Regional Planning Review Process \(ieso.ca\)](#) and will respond via that forum.