Feedback Form

Electricity Planning in the West of London Area – November 26, 2020

Feedback Provided by:

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Windsor-Essex Integrated Regional Resource Plan Addendum Study

Topic	Feedback
What feedback do you have regarding any of the options proposed?	ESC is encouraged that IESO has included reference to energy storage as a proposed option to meet regional and local system needs. As IESO is aware, energy storage can serve as a distributed energy resource (DER) and non-wires alternative (NWA), and can also serve as a supply-side resource (i.e., utility-scale storage). As discussed in our recent valuation study, energy storage technologies are highly varied, and different technologies are suitable for specific purposes or use cases. Identifying the best suited storage technology will require specific details on the needs of the grid (e.g., response time, duration, etc.). Given the local industry and infrastructure in the Windsor-Essex region, a range of energy storage technologies may be viable, including batteries and power to gas.

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What other information should be considered in the continued development of these solutions leading up to the recommendations?	As discussed in our recent valuation study, the regulatory framework and process for procuring services from non-wires alternatives must be considered. Unlike traditional wires solutions, in addition to meeting local reliability and system needs, energy storage may also have the flexibility to offer excess capabilities to the wholesale market (i.e., ancillary services) or other customers. While it is appropriate for the IESO to seek further information about the installed cost of energy storage solutions, this does not provide the complete view of the cost-effectiveness of energy storage relative to traditional solutions. In other words, energy storage may offset costs depending on its ability to access other revenue streams. Therefore, rather than analyzing the cost to install and operate energy storage solutions, the IESO should instead evaluate the cost of procuring the services from energy storage solutions to meet the identified needs. In this context the procurement approach could impact the cost of the solution (i.e., transparency, competition, contract terms, etc.)

West of London Bulk Study

Topic	Feedback
What feedback do you have regarding any of the options proposed?	ESC is also encouraged that IESO has included reference to energy storage as a main alternative to address Stage 1. As demonstrated by the projected load growth west of London, the IESO has identified the potential for up-to 650 MW of local capacity, which may be provided by energy storage. As demonstrated by our recent valuation study, the procurement of energy storage can lead to savings for electricity customers given improved and efficient utilization of the province's existing assets. In addition to providing the needed capacity, energy storage can offer excess capability to other markets, such as end-use customers or distributors. Further, unlike other dispatchable supply resources, energy storage does not contribute to increased greenhouse gas emissions and is also aligned with Ontario's proposed hydrogen strategy.

Topic	Feedback
What other information should be considered in the continued development of these solutions leading up to the recommendations?	ESC recommends that the IESO provide transparent and sufficiently detailed information with respect to emerging capacity needs which will support the identification of solutions. For example, IESO should provide access to planning data including: • Locational specific needs within the study area • Constraints on the system, including hosting capacity (transmission and distribution-level) • Duration and frequency of capacity needs • Variables impacting and informing forecasts With more granular data provided by the IESO about the nature of the emerging system needs, energy storage providers will be able to respond with targeted and competitive options. With any future procurement, the IESO should identify required attributes such as: • Proportion of eligible generation with zero tailpipe emissions • Capability to provide guaranteed sub cycle response to nameplate energy for ramping and other services • Other attributes required for efficient grid operations.

General Comments/Feedback

ESC looks forward to next steps of the IESO's regional planning process and we are encouraged by the progress made to-date, including the recognition that energy storage resources are a viable option to meet emerging system needs. While energy storage has been widely deployed across North America, and Ontario has deployed a significant amount of energy storage to-date, we acknowledge that energy storage is still relatively new in Ontario. The IESO and Ontario's trasmission and distribution companies continue to evolve their planning processes to give due consideration of options to meet emerging needs. ESC recommends that the IESO augment it's planning process by including technical expertise from energy storage providers. Our members have operated in a number of jurisdictions where energy storage has been deployed to meet local and regional needs. We believe it is necessary to augment technical working groups with representatives from the energy storage industry who are well positioned to provide details on the capabiltiies and operations of energy storage.