

Feedback Form

Bulk Study Updates (Northern Ontario) – September 24, 2024

Feedback Provided by:

Name: Justin Rangooni

Title: Executive Director

Organization: Energy Storage Canada (ESC)

Email: [REDACTED]

Date: October 15, 2024

Following the September 24, 2024 engagement webinar, the Independent Electricity System Operator (IESO) is seeking feedback on the items discussed during the webinar. The webinar presentation and recording can be accessed from the engagement web page.

Please submit feedback to engagement@ieso.ca by **October 15, 2024.** If you wish to provide confidential feedback, please submit as a separate document, marked "Confidential". Otherwise, to promote transparency, feedback that is not marked "Confidential" will be posted on the engagement webpage.

Topic	Feedback
<p>Are there any additional considerations we should be aware of in developing the Northern Ontario Bulk Study?</p>	<p>There are several flaws in the initial Non-Wires Alternative (NWA) analysis completed by the IESO. First, it is not clear what data sources IESO has used for expected production from non-emitting resources. Rapid technology change and ability to design projects to meet specific system needs must be considered as part of any system analysis. Second, the IESO appears to have completed the analysis without any external expertise with recent data from recently constructed non-emitting resources and energy storage resources. The IESO is an expert in Ontario power system operation and planning but has little to no experience in the design and operation of non-emitting and energy storage resources. The IESO should be retaining expertise to best inform their planning decisions. Finally, the ability of NWAs to meet power system needs will be highly influenced by the procurement design objectives aligning with system needs. Without a procurement process targeting power system needs, generation and energy storage resources will not be developed and designed properly to meet the system need. This is a critical drawback with the current IESO procurement designs (i.e., MT2 and LT2) which are narrowly focused on total provincial energy system needs and do not consider specific bulk and regional power system needs and attributes. Another consideration that should be included in the Northern Ontario Bulk Study is the long-term system needs for resources and the current operating restrictions the IESO is assessing. The noted 1,200 MW of renewable inverter-based resources is related primarily to the current supply & demand mix. This does not consider how the system will evolve while a Northern Ontario bulk system solution is being developed and the variously phases a bulk solution should move through. For example, a medium-term phase of solution could be a NWAs including new non-emitting generation while a long-term solution may be a new 500 kV or HVDC transmission line that can be adjusted and scoped based on the actual evolution of the Ontario power system.</p>

Topic	Feedback
What feedback do you have regarding the content delivered today?	<p>The Northern Bulk Transmission study significantly lack data for stakeholders to provide any thoughtful analysis or alternative approaches. The IESO should immediately make available the following historic and projected information and planning data:</p> <ul style="list-style-type: none"> • Hourly interface flows for FN and FS for the past 3 years • Hourly interface limits for FN and FS for the past 3 years • Hourly interface flows for FN and FS for 2030, 2040, and 2050 • Hourly generation output for past 3 years in readable and downloadable format for all northern generation • Hourly zonal demand projections for 2030, 2040, and 2050.
Are there specific areas of urgency that should drive the studies to prioritize one need or area above others?	<p>With increased demand growth expectations, timelines for investments and actions must be accelerated to avoid negative economic impacts. NWAs are a flexible solution that can be a long-term alternative to traditional wires solutions or can be a transitional investment to ensure the power system can meet reliability and service requirements without causing load customers to delay their connections or investments. It does not appear that the IESO has considered the latter ability of NWAs (e.g., energy storage resources) to meet power system needs in the short- to medium-term.</p>

General Comments/Feedback

Technology is evolving rapidly and the IESO should not be expected to maintain a deep knowledge in the ability of different NWA options. Further, the capabilities of non-emitting resources and energy storage resources can be adjusted to meet specific power system needs. To understand the range of capabilities and attributes from energy storage resources, the IESO bulk planning process must establish a process to draw upon expertise within the sector. This could be accomplished by including energy storage developers or industry associations in the Technical Working Group (TWG) for bulk planning activities or establish an advisory committee to assist the IESO in the analysis.

ESC also recommends that the IESO seek to connect the bulk planning studies to the projects and locations expected to be identified through the LT2: Long Lead Time RFP. The current in-service timelines for the procurement are likely within the planning and development horizon of new

transmission infrastructure, some of which could also be enabling for LT2 LLT projects. The IESO should leverage the RFI LLTR, and information received through the LT2 LLT bid submissions, including through direct pre-meetings with proponents, to identify if there are regions or project locations that could be enabled at the bulk level through this plan.