

Feedback Form

Transmission Planning Bulk Study Updates (South Central and Northern Ontario) – June 19, 2024

Feedback Provided by:

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Date: July 10, 2024

Following the June 19, 2024 engagement webinar, the Independent Electricity System Operator (IESO) is seeking feedback from stakeholders 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 July 10, 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
What feedback do you have regarding the scope of work proposed?	See attached letter

Topic	Feedback
What other potential growth assumptions or resource scenarios should be considered as we quantify needs?	See attached letter

Topic	Feedback
What additional information should be taken into account as we develop options?	See attached letter

General Comments/Feedback

See attached letter.

July 10, 2024

Independent Electricity System Operator
1600-120 Adelaide Street West
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Email to: engagement@ieso.ca

Re: Bulk Planning Studies Update: Northern Ontario and South & Central Bulk Studies

We are writing in response to the IESO's Bulk Planning Studies Update: Northern Ontario and South & Central Bulk Studies engagement webinar presented June 19, 2024. Thank you for the opportunity to provide feedback on a planning process that will impact our service territory for decades to come. Greater Sudbury Utilities and its companies distribute electricity to over 47,800 customers within the City of Greater Sudbury and the Municipality of West Nipissing. We are owned by our sole shareholder, the City of Greater Sudbury.

Regarding the scope of work presented, the scopes of this study and of previous recent major studies¹ have in large part discussed the need for transfer capacity through the Sudbury region to enable neighbouring jurisdictions or flow-through north to south. We would like to ensure that the Northern Ontario portion of these Bulk Studies considers the provision of additional required load and generation capacity within the Sudbury region. While the IESO and Hydro One's regional planning processes are the main forum for some of these issues, the upgrades to the transmission system being described in this engagement are generational and will provide necessary infrastructure and recommendations that will inform subsequent regional plans.

Within the last several planning cycles, we have taken a 'business as usual' approach to load and generation growth. In recent years however, inquiries to our municipality from large power consumers have increased significantly. Combined with the IESO's and Ministry's stated desire to enable generation projects in Northern Ontario specifically, and considering a global push for decarbonization, our jurisdiction is now at a critical period in area capacity planning.

¹ See the 2024 Annual Planning Outlook, the 2023 North & East of Sudbury IRRP, and the 2022 Need for Northeast Bulk System Reinforcement

Load Growth

In July 2023, the City of Greater Sudbury published growth expectations, determining that our population would increase by 10-18% by 2050. This growth is driven mainly by an increased need for area critical resources, increased plans for local resource processing, municipal marketing efforts to draw newcomers to the region, and immigration. Resource extraction is booming in the city with no signs of slowing down due to the rise of global EV manufacturing which is driving demand for the critical minerals found in our area.

Sudbury alone currently contains nine operating mines, two mills, two smelters and a nickel refinery. Vale is actively pursuing BEVs throughout its global operations² and has already started electrifying its fleet in Sudbury mines. New mines including Glencore's Onaping Deep Mine³ are being designed from the ground up to maintain fully electric fleets and operations, and Magna Mining's Crean Hill and Shakespeare projects are likely to open in the next 5-10 years⁴. Industrial power needs within the region will be significantly higher in the coming years than previously estimated due to the now proven benefits of electrification, particularly in the mining sector, from an economic, health and safety, and environmental standpoint.

The municipality and the province have been courting numerous large processors and manufacturers. Among these are the recently announced MOU⁵ between Wyloo, the City of Greater Sudbury, Atikameksheng Anishnawbek, and Wahnapiatae First Nation. This announcement has already drawn industrial siting inquiries from over a dozen major organizations related to lithium and graphite refining. Discussions with 5 large mining OEMs looking to grow their operations have also begun. In order to accommodate this additional industrial interest, the City of Greater Sudbury has plans for 6 new industrial parks over 2,000 acres of land.

Decarbonization is also projected to hit the city's power needs. Sudbury is working towards a 100% electric transit and operations fleets with procurement already started⁶. The city has one of the highest growth rates for EV adoption in the province. Utility residential and commercial load growth estimates must be right-sized with announcements for Canada-wide decarbonization by 2050 and estimates for population growth.

² <https://im-mining.com/2023/03/17/vale-epiroc-planning-for-automation-shift-with-battery-electric-loaders-at-creighton/>

³ <https://www.glencore.ca/en/sudburyino/media-and-insights/insights-and-stories/taking-a-closer-look-at-the-onaping-depth-project>

⁴ <https://www.northernontariobusiness.com/industry-news/mining/magna-mining-drills-to-expand-nickel-resources-at-former-inco-mine-8151299>

⁵ <https://wyloo.com/media-release/canadas-first-downstream-battery-materials-processing-facility-to-be-built-in-sudbury/>

⁶ <https://pub-greatersudbury.escribemeetings.com/FileStream.ashx?DocumentId=38419>

Generation

Plans for city expansion include land traversed by many area 115kV and 230kV circuits. These properties boast optimal conditions for large generation projects including utility-scale wind, solar, and battery developments. There have been multiple major generation inquiries including those developed with the intent to be submitted to the LT2 and other recent procurement RFPs. These potential projects have been cancelled due to constraints on connections to feasible transmission circuits. In the IESO's Preliminary Connection Guidance for Long-Term 2 Procurement, the list of circuits to avoid is significant and includes a majority of the transmission lines connected to both Martindale TS and Hanmer TS. This is relevant to the bulk planning process because most of these exclusions are related to the protection of the transmission circuits that make up the north-south interface that are a focus of this bulk study process.

All of these factors will result in a need for 100s of MW of additional load and generation within the Sudbury area before 2050.

Major improvements to area transmission stations will be required to allow for transmission circuit upgrades and new builds. When planning for these station upgrades it is important to also factor in locally-servicing transmission stations. Hydro One's Martindale TS is one of the main transmission stations powering our community. This TS is nearing capacity⁷ and will be exceptionally challenging to expand due to land constraints. It is located in an area of our municipality that is being promoted by the city and province to large industrial consumers and where there is likely to be further near-term residential and commercial expansion. Martindale TS is directly connected to Hanmer TS where several of the newly proposed transmission system upgrades will flow through. It would be prudent to consider the requirement for new TS connections in the area when planning for any infrastructure expansion through this bulk transmission process.

Greater Sudbury Utilities appreciates the opportunity to provide feedback throughout the Northern Ontario Bulk Transmission Study. Our input is critical to ensuring that local and provincial economic interests are planned for during a process that will impact our area over the long term. We look forward to being part of transmission planning through the IESO's engagement Framework on an ongoing basis.

Best regards,



Frank Kallonen
President & CEO
GSU Group of Companies

Cc: Mayor Paul Lefebvre, City of Greater Sudbury
Mark Signoretti, Chair – GSU & GSH Board of Directors

⁷ See Hydro One's Sudbury/Algoma 2020 RIP