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BY EMAIL AND RESS

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Ms. Nancy Marconi
Registrar
Ontario Energy Board
Suite 2700, 2300 Yonge Street
Toronto, ON M4P 1E4

Dear Ms. Marconi,

EB-2024-0126 – Transmission Connections Review – Hydro One Networks Inc.’s Comments

On April 24, 2024, the Ontario Energy Board (“OEB”) issued a letter to inform the electricity sector that it would be undertaking a review of the Transmission System Code’s (TSC) connection processes and requirements to determine if they remain effective and appropriate in facilitating and enabling the demand growth in Ontario expected in the coming decades (the “Letter”). In the Letter, the OEB has identified issues that could potentially be included in the review and has asked stakeholders for their input in identifying any other issues that should be considered as part of the review. The OEB intends to use the input received from stakeholders to develop an issues list and a plan for addressing these issues.

Hydro One Networks Inc. (“Hydro One”) supports the OEB’s TSC review and believes that further clarification and enhancements to the connection rules are needed to drive economic growth and support increased electrification. Please refer to Appendix A for the issues that Hydro One believes should be included in the scope of this review.

If you have any additional questions regarding Hydro One’s submission or would like to discuss our comments in further detail, please contact Hatem Osman via email at regulatory@hydroone.com.

Sincerely,

Jason Savulak

Appendix A

Hydro One's Transmission Connections Review List



Transmission Connections Review List

Board File Number: EB-2024-0126

Issue	Description	Justification	Priority
Assessing Customer Risk	When a customer requests a connection to the transmission system, a customer risk level determination is made based on criteria set out in the TSC. The customer risk classification establishes the revenue horizon for the economic evaluation of the customer's connection. Currently, risk classification and revenue horizon are correlated as follows: • High Risk - 5 years • Medium-High Risk - 10 years • Medium-Low Risk - 15 years • Low Risk - 25 years	There has been a noticeable rise in the number of requests from large customers wanting to connect to the transmission system; a rise of this magnitude has not been seen in previous years. New transmission connections typically require a large up-front capital contribution to be paid by the customer. Since the revenue horizon used in the economic evaluation directly impacts the capital contribution amount, the risk analysis parameters that establish the economic evaluation period should be reviewed to ensure that they are fair, reasonable and provide appropriate flexibility that would not hinder potential connections.	High
Anomalous Risk Results	No guidance or clarification is provided as to what factors could be considered by a transmitter when making an anomalous risk results determination. In accordance with Appendix 4 of the TSC, a high risk or medium-high risk classification that results from the application of the methods contained in this section may be determined by Hydro One to produce an anomalous result and the customer may be assigned a different risk classification with the customer's consent.	The current OEB-prescribed risk classification methodology does not permit a transmitter to consider important factors, such as a battery storage facility's procurement contract with the IESO or a load customer's executed agreement with the Government of Ontario for the furtherance of economic development and/or investment for a substantial term, when assigning the risk classification for a load customer. Clear guidance should be provided to ensure that anomalous risk results determinations are applied in a consistent manner and consider all relevant factors.	High

Issue	Description	Justification	Priority
Ability to Make Prudent Future Investments and Allocate Costs Proportionately	There is a lack of available connection capacity in the province despite projections for continued load growth and demand for electricity into the future. Transmission Planners must be able to build in advance to support and meet this expected future demand. If pre-emptive planning decisions are not made early on, customers who connect in the future will be solely responsible for the expansion costs and pay higher costs to connect. Further clarity is required as to what is considered ‘build for the future’ and how Section 6.3.8 of the TSC, which does not require a customer to make a capital contribution for capacity added by the transmitter in anticipation of future load growth not attributable to that customer, should be applied.	Cost responsibility and cost allocation methods are outdated and do not reflect current realities of having electrical infrastructure in-place to enable expedited development. Upgrading an existing station represents a once in a lifetime opportunity. If a station is upgraded to meet the same capabilities for today, this will not adequately prepare the system for the next 50-60 years to meet electrification and climate change goals. The TSC should consider allowing additional capacity, as appropriate, to be incorporated into planning and design decisions. Hydro One and the IESO see long-term potential for some of the corridors. If there is rationale for making investments in advance to support future projected growth, these costs could be shared between connecting customers and the network pool. Adopting this strategy aligns with practices already employed by the Gas industry. Extraordinary load increases (e.g. a large new plant or data centre) can also be disruptive given the scale of recent new connections. Regional Planning may not be aligned or empowered to add capacity sufficient to absorb the large load.	High
Clarification of the Neighbouring Ontario Transmitters (NOT) Definition and Network Asset Interpretation	According to Section 3.0.14 of the TSC, the line that forms part of the physical path between a ‘network station’ and the transmission system of a neighbouring Ontario Transmitter (NOT) is considered a ‘network facility’. Some customers are declaring themselves to be a NOT (even though they serve no other customers aside from themselves) to leverage the definition of a network facility and transfer their facility costs to the network pool.	The formation of many NOTs is concerning and clear qualifying criteria should be established. Proponents should not be able to leverage the definition of a ‘network station’ or operate as a NOT and leverage the definition of a ‘network facility’ to avoid paying for their asset costs in accordance with the “beneficiary pays” principle.	High

Issue	Description	Justification	Priority
Transmission Connection Agreement (TCA) for Energy Storage Facilities	Energy storage facilities are unique in their ability to withdraw large amounts of energy like a load and discharge large amounts of electricity like a generator. However, the connection requirements for energy storage facilities are not clearly defined in the TSC and no standard form TCA has been established for storage facilities.	From an operating perspective, it is not conducive or practical to rely on two connection agreements (the generator and the load customer forms set out in Appendix 1) for an energy storage connection and that a standard form TCA should be developed to address specific connection and operating rules for energy storage facilities. Hydro One developed a form specific to an energy storage facility by way of an exemption in its licence. Given that more energy storage facilities will be connecting to the system, it would not be practical to seek an exemption or approval from the OEB each time to use its unique agreement form.	High
Short Circuit (SC) Limits	Station SC levels cannot exceed the design limits specified in Appendix 2 of the TSC.	The OEB expects distributors to integrate and enable the connection of more DERs to their systems. However, the connection of more DERs to the distribution system will increase the SC level at transmission stations. Consideration should be given as to whether appropriate flexibility should be granted to be able to exceed the limit based on local evaluation and agreement with the transmitter to accommodate the growth in DER adoption.	High
Capital Contribution Payment Options	The TSC does not provide enough flexibility or options for customers to pay for their upfront capital contribution (other than the LDCs over 5 year option), owing to the transmitter.	With the Province trying to entice new businesses to enter the Ontario market, these companies must provide a substantial capital contribution related to their connection while also incurring significant plant construction costs. The OEB should allow transmitters flexibility on how they can collect their capital contribution from customers, while managing ratepayer risk. Such options would provide new customers connecting to the transmission system with improved financial flexibility.	Medium

Issue	Description	Justification	Priority
New liability exceptions and operating terms for FLISR and other future technologies to enable distribution grid modernization/automation	THESL is implementing Fault Location Isolation and Service Restoration ("FLISR") on its Network Management System to improve customer reliability. As part of the FLISR application, THESL will require remote operating control of feeder circuit breakers owned by HONI that supply power to THESL. Section 5.1.2 of the TSC requires transmitters to operate their own transmission facilities. There is no provision in the TSC that allows for a transmitter to permit a customer to operate transmitter-owned equipment in non-emergency situations and for the operating customer to be liable for damages beyond direct damages for negligence or willful misconduct.	As a result of distribution grid modernization projects like THESL's FLISR, it is expected that more LDCs could request remote operating access to HONI's feeder circuit breakers. Where the transmitter is agreeable to the customer operating its transmission equipment during non-emergency/day-to-day circumstances in accordance with terms set out in the operating schedule of the TCA, the customer should be liable in the same way that they would be when they exercise their right of access or operate equipment in emergency circumstances. In most cases, the customer requesting this ability will be another LDC. They should be liable for claims brought by its customers against the transmitter arising out of or related to the LDC's operation of the transmitter's equipment.	Medium
Obtaining outages	There are difficulties obtaining outages in most parts of the province due to resistance from customers. Even in cases where commitments are obtained, customers cancel and deny the outages. This prevents the transmitter from doing the minimum required maintenance, which puts system reliability at risk.	Large customers will sometimes deny Hydro One outages for years, which can result in failed assets and lead to extended outages and loss of load. Transmitters need to have assurances that planned outage schedules can be relied upon and will only be altered for good reason.	Medium
Enabling Residential and Small DER Connections	Transmission stations are designed to serve load customers and not enable DER connections. Since DER connection capacity is allocated on a first-come first-serve basis, a few DER proponents can secure all the available connection capacity at a station. As a result, a new transmission station could be built and within a short period of time, there may not be any available capacity to connect any more DERs, including residential and small DERs.	The OEB needs to ensure that transmission stations facilitate all potential DER connections in an equitable manner. Stations should be designed and built to ensure there is sufficient capacity to enable the connection of smaller DERs (e.g. rooftop solar and energy storage), which may be difficult to forecast.	Medium