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BY EMAIL AND RESS

February 18, 2025

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

Dear Ms. Marconi,

Re: EB-2024-0126 – Hydro One Networks Inc. Proposed Amendments to the Transmission System Code to Enable the Connection of Energy Storage

On January 27, 2025, the Ontario Energy Board ("Board" or "OEB") issued a Notice of Proposal to amend the Transmission System Code ("TSC") to recognize energy storage as a distinct resource type and clarify the connection requirements applicable to energy storage (the "Proposal").

Overall, Hydro One Networks Inc. ("Hydro One") supports the proposed TSC amendments in the Proposal but is recommending additional revisions for the OEB's consideration. Please refer to Attachment A for our written comments. Hydro One's comments are intended to ensure that there is a clear understanding of the connection requirements that apply to energy storage facilities and the OEB's expectations for implementing these requirements.

If you have any additional questions regarding Hydro One's comments or would like to discuss these comments in further detail, please contact Jason Savulak by email at jason.savulak@hydroone.com.

Sincerely,

Jason Savulak

ATTACHMENT A

EB-2024-0126 - NOTICE OF PROPOSAL TO AMEND A CODE

PROPOSED AMENDMENTS TO THE TRANSMISSION SYSTEM CODE TO ENABLE THE CONNECTION OF ENERGY STORAGE

HYDRO ONE NETWORKS INC. COMMENTS

Hydro One appreciates the opportunity to comment on the OEB's proposed amendments, which will help facilitate the connection of energy storage to the transmission system through clear and effective connection processes, procedures, and requirements. Hydro One supports the proposed TSC amendments to recognize and establish specific requirements for connecting energy storage but believes that certain aspects and details related to the proposed amendments need further refinement.

Hydro One submits the following comments in response to the OEB's Proposal:

1. Definitions

(a) Storage Facility

Hydro One is recommending the following changes to the OEB's proposed definition for an energy storage facility:

2.0.60 "storage facility" means a facility that ~~once connected to a Transmission System~~ is capable of withdrawing electrical energy from the Transmission System (i.e., charging), and then storing ~~such~~ energy in any form for a period of time, and then ~~re-~~ injecting ~~only such~~ electrical energy back into the Transmission System, minus any losses (i.e., discharging);

As currently worded, Hydro One understands that the definition for a storage facility would exclude an embedded storage facility that is installed behind the connection point of a transmission customer. Recently, two successful IESO Long-Term 2 RFP proponents have proposed to connect storage facilities behind an existing generator customer's connection point. The storage facilities are owned and operated by a different legal entity than the generator but will still be charging and discharging from the transmission system. In Hydro One's view, it should not matter whether the storage facility is directly connected to the transmission system to be defined a storage facility. The suggested revisions above to the definition would ensure consistency with the definition below for a "generation facility" in the *Electricity Act, 1998,* which does not make any distinction with respect to the connection point and applies to the Transmission System Code and the Transmission Connection Agreements:

> "generation facility" means a facility for generating electricity or providing ancillary services, other than ancillary services provided by a transmitter or distributor through the operation of a transmission or distribution system, and includes any

structures, equipment or other things used for that purpose; [emphasis added]

The revisions will also ensure that the definition of a "storage facility" applies to all types of storage facilities, including pumped storage.

(b) Storage Customer

Hydro One is recommending the following changes to the OEB's proposed definition for a storage customer:

2.0.61 "storage customer" means a customer that either owns or operates a storage facility; or connects a storage facility behind an existing customer connection point to the transmission system;

As previously mentioned, two successful IESO Long-Term 2 RFP proponents have proposed to connect storage facilities behind an existing generator customer's connection point. Therefore, the definition for a storage customer must consider that a storage customer may not own or operate a storage facility that is directly connected to the transmission system.

For the scenario above, Hydro One will be requesting that the existing generator customer execute the version of the connection agreement used for storage customers, which will address the generator customer's existing generation facility and the third party-owned storage facility connected behind the generator customer's connection point.

2. Cost Responsibility for New or Modified Connections

Hydro One is proposing the following changes to the new Section 6.3.0, which is intended to recognize and clarify the application of cost responsibility rules to an energy storage facility:

6.3.0 For the purposes of section 6.3, ~~generator customer includes storage customer, and generation facility includes~~ a storage facility is a generator facility~~. Further, when~~ unless the storage facility ~~it uses~~ withdraws electricity from a transmission system, then ~~a~~ the storage facility is a load customer.

The OEB's proposed wording in Section 6.3.0 is confusing and it is unclear whether a storage facility should be treated exclusively as either a load customer or a generator customer or it could be both depending on the operation of the facility. In Hydro One's view, while a storage facility is capable of operating like a generator and a load, a storage facility should be designated as either a load or a generator customer and it cannot be both. If a storage facility withdraws electricity from the system, it should still be classified as a load customer.

As Hydro One understands from the proposed wording in the definition, a storage facility would be treated as a load customer if it withdraws energy from the system. A storage facility could only be a generator if the facility does not withdraw energy from the system (ie. the storage facility withdraws energy from a generator that is not connected to the system). Hydro One believes that the OEB should confirm this understanding when issuing final amendments

To ensure that the cost responsibility treatment for storage facilities is clear, Hydro One believes that it may be beneficial for the OEB to provide examples, which would demonstrate how cost responsibility rules should be applied to storage facilities based on their mode of operation. Since generator customers pay for the total cost of their connection and load customers are subject to an economic evaluation as specified in the TSC, Hydro One is concerned that without real examples and specific guidance on this subject, customers could argue for cost responsibility treatment that is more beneficial to them.

3. Economic Evaluation of New and Modified Connections

Hydro One is proposing the following changes to Section 6.5.0 to ensure that the application of cost responsibility rules are clear for a storage facility:

6.5.0 For the purposes of section 6.5, a storage facility is a ~~generator customer includes storage customer, and~~ generator facility ~~includes storage facility. Further, when it~~ unless the storage facility ~~uses~~ withdraws electricity from a transmission system, then ~~a~~ the storage facility is a load customer. For greater clarity, if the storage facility is a load, the cost of the connection facility will be subject to an economic evaluation based on the storage facility's mode of operation and load profile.

As previously stated, it is Hydro One's understanding that a storage facility is a load unless the facility only injects energy into the system and does not withdraw energy from the system. The changes recommended above would clarify that the cost of any connection facilities associated with the connection of a storage facility are subject to an economic evaluation, in accordance with the cost responsibility rules in TSC that apply to a load customer.

With respect to the economic evaluation, Hydro One is concerned that some storage customers will overstate their actual demand to maximize the revenue credit used in the Discounted Cash Flow calculation and reduce their upfront capital contribution. This also results in capacity being allocated to the facility that will not be used and cannot be used by other customers that want to connect until a true-up is performed and an additional capital contribution is collected from the storage customer. Therefore, Hydro One has recommended the inclusion of additional language that would require a storage customer to submit a load profile that accurately matches its planned mode of operation when connected to the system and participating in the IESO markets.

4. Appendix 1 Version C – Form of Connection Agreement for Storage Customers, Schedule F – Additional Technical Requirements

The word "Customer" should be capitalized throughout the Schedule to avoid any confusion or ambiguity regarding the use of the word "Customer". This is the only schedule in the proposed Version C of the TCA where the word "Customer" is not capitalized.