



Hydro One Networks Inc.

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HydroOne.com

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November 4, 2022

Katerina Downard
Environmental Policy Office
438 University Ave
12th Floor
Toronto, ON
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Canada

RE: ERO 019-6000 Building public electric vehicle charging infrastructure

Hello Katerina,

Hydro One Limited, through its wholly-owned subsidiaries, is Ontario's largest electricity transmission and distribution provider with approximately 1.5 million valued customers, roughly \$30.4 billion in assets as of December 31, 2021, and annual revenues in 2021 of about \$7.2 billion. Our team of nearly 9,300 skilled and dedicated employees proudly build and maintain a safe and reliable electricity system, which is essential to energizing life for people and communities across the province. In 2021, Hydro One invested over \$2.1 billion in its transmission and distribution networks and supported the economy through buying approximately \$1.7 billion of goods and services.

Hydro One aims to be a trusted partner to government as they unroll their Electric Vehicle (EV) public charging program, particularly in rural areas. Hydro One encourages Ministry of Transportation Ontario (MTO) and potential charger owners to work closely with distributors, particularly when determining where capacity exists to place chargers.

1. Where are the geographic areas in Ontario where there are gaps in public EV charging infrastructure?

Areas outside of the Greater Toronto and Hamilton Area (GTHA) particularly in Northern Ontario, are missing EV charging infrastructure. According to [Natural Resource Canada's \(NRCan\) Updated Projections of](#)

[Canada's Public Charging Infrastructure Needs](#), the ideal spacing between stations on the highway system is 65 km. As evidenced by [NRCan's Electric Charging and Alternative Fueling Map](#), there are significant gaps in rural and northern networks, making charging unfeasible for most customers outside the GTHA. As such, it is important MTO plans ahead and makes EV ownership feasible for customers across Ontario.

2. In what kinds of situations are public EV chargers most useful (e.g. type and length of trip and type of charging location)?

Level 3 chargers are most useful at making EVs feasible for rural customers as drivers cannot depend on public level 2 chargers for practical use, as long parking times are required. However, Level 3 chargers can be challenging to locate as they are more impactful on the grid from a capacity perspective than Level 2 chargers. If capacity does not exist on the grid, upstream system upgrades or alternative solutions such as storage and renewable supplies may reduce the economic efficacy of the project.

3. What are the challenges with increasing public EV charging in Ontario and how could the government help address those challenges?

Ensuring sufficient electricity capacity is a challenge for installing Level 3 chargers. Prior to receiving financing, proponents wishing to install EV charging stations should contact distributors to perform a Preliminary Connection Assessment, as upstream system upgrades may be needed when:

- Total single-phase load equal to or greater than 167kVA (new service or existing service plus upgrade)
- Total three phase load equal to or greater than 500kVA (new service or existing service plus upgrade)
- Any connection requests to a 44kV supply voltage

There are significant gaps in knowledge distributors have when planning for future load. MTO should consider making anonymized postal code data available about electric vehicle purchases to utilities. This could help



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utilities make proactive investments in the long run for both charging stations and home chargers.

Hydro One serves approximately 1.5 million customers, primarily outside the GTHA. It is important that proponents receiving funding for rural electric vehicle charging stations are able to maintain and operate charging stations after they are set up. Additionally, MTO should ensure charging stations have designated operators to ensure longevity and are equipped with phone numbers, for example, to call and easily dispatch maintenance crews if the charger is not working. Applicant's ability to operate and maintain charging station networks should be a key consideration in funding applications.

Hydro One thanks the Ministry of Transportation for the opportunity to comment on this important initiative as we move towards a greener economy. Please do not hesitate to reach out if you have any further questions.

Regards,

A handwritten signature in black ink, appearing to read "Dan Levitan". The signature is fluid and cursive, with a large initial "D" and "L".

Daniel Levitan
Vice President of Stakeholder Relations
Hydro One Networks Inc.