

Submitted electronically to:

Katerina Downard  
Environmental Policy Office  
438 University Ave, 12<sup>th</sup> Floor  
Toronto ON  
M7A 1N3

November 4, 2022

Dear Ms. Downard,

**Re: ERO Number 019-6000  
Building public electric vehicle charging infrastructure**

As a leader in the local electricity distribution sector, Alectra is committed to delivering innovative energy solutions that not only create value for our customers, but also help them to take charge of their electricity usage and costs.

Alectra is pleased to provide feedback to the Ministry of Transportation on improving public electric vehicle charging infrastructure in Ontario. Alectra is a leading utility in Ontario, supporting the adoption of e-mobility by customers. In particular, we developed and implemented the pilot project that led to the Ultra-Low Overnight electricity rate announced by the Minister of Energy in February 2022; we've secured multiple rounds of federal funding to install EV chargers across our service territory; and we've won multiple awards including the 2020 Smart Electric Power Association (SEPA) "Public Power Utility of the Year Power Player" award, and the Plug'n Drive and Canadian Electricity Association (CEA) 'Tom Mitchell Electric Vehicle Utility Leadership' award.

### **Ministry Questions**

Alectra provides comments to the Ministry's questions below:

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

It should be noted that this market is developing rapidly, with several factors (in particular, higher gas prices and greater vehicle availability) accelerating EV adoption. Alectra is thus doing ongoing analysis to keep up to date with vehicle adoption trends.

At a high level, we can say that public charging infrastructure remains at a low level of development and is only installed where return on investment is promising (i.e., areas where high rates of usage are expected), and in commercial areas where public charging is provided for the purpose of attracting customers to those areas. The result is busier urban and more well-off areas being disproportionately targeted for EV charging infrastructure, while rural and low-income areas remain underserved. In addition, charging needs may not match demand. Fast charging stations generally cost more but are not required in many locations where drivers will be parked for several hours. It is important to note that while urban areas tend to attract greater investment in EV charging infrastructure, many urban areas still require further investment to prepare them for the surge in EV adoption that is expected in the coming years. This highlights that there is a general lack of public EV charging infrastructure in many areas, however, this

problem is being addressed more prominently in dense urban areas than rural and low-income areas.

Indigenous and First Nations communities also remain underserved due to this dichotomy. As such, we encourage the MTO to directly engage these communities to understand their mobility needs and if/how EV charging infrastructure is desired or would make a positive impact in those communities. We applaud the government's introduction of the Rural Connectivity Fund, which aims to alleviate some of these very issues.

We believe the ministry should take responsibility for publishing maps comparing the availability of charging stations regionally, and any available data on expected demand for such infrastructure as a way of facilitating market development. This would also allow the Ministry to target "charging deserts" for development in a more active manner than in areas that are only somewhat underserved.

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

Most EV users across the province have home-installed infrastructure, however, there is also a significant and growing number without access to home charging. One issue that is prevalent for Alectra's customers is charging for residents in Multi-Unit Residential Buildings (MURBs). Due to the complexity of adding EV infrastructure in existing buildings with a shared ownership model, adoption of EVs by residents of MURBs is approximately one-third of what it is in single-family dwellings. Efforts should be made to simplify the process of adding charging infrastructure in MURBs. Providing more public charging infrastructure can also help make EV ownership manageable for residents of MURBs. For the longer term, new buildings should be required to have a certain percentage of parking stalls 'EV ready'. The government could consider reversing recent building code changes which eliminated requirements for EV readiness in residential developments.

Major highway corridors would also benefit from enhanced charging infrastructure. While chargers at ONroute stations across the province are making excellent progress, the ministry should consider the installation of more Level 3 chargers at these locations, as drivers do not tend to want to stop for long periods of time to charge on longer-distance trips. Commercial vehicles are just at the beginning of their electrification process, as electric versions of these vehicles become more available, and they will also require additional infrastructure. This will impact both intracity travel (taxis, commercial deliveries) as well as inter-city travel.

In terms of level two chargers, we believe hotels are a location where charging infrastructure would prove useful for travelers. Hotel patrons would have the ability to charge overnight in a secure and convenient environment, mitigating the need for extra stops along their journey. Customers going about daily tasks also will benefit from improved charging infrastructure. Destinations such as supermarkets, shopping malls and community centres allow customers to charge for longer periods of time, since these stops tend to be longer. Recreation facilities such as provincial parks, public golf courses and camp sites would also benefit from public charging infrastructure as places where people are likely to park for longer periods.

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

As EVs start to become the transportation option of choice for consumers, Alectra appreciates that challenges persist in this space. While there are concerns around governance and regulatory requirements pertaining to the role of utilities in this space, we will focus on high-level challenges for the purpose of this submission.

Perhaps the main challenge is demand on the electricity grid from the growing impact of charging infrastructure, especially in larger urban areas. Having reliable projections for growth in areas expected to see EV charging demand accelerate the fastest will allow utilities to make informed investment decisions when upgrading the electricity system. Currently, there is no source for reliable projection data at the neighbourhood or local level. Having access to this type of information would allow utilities to invest proactively in charging infrastructure and distribution capacity where it makes the most sense for customers.

Another challenge is that new developments such as community and recreation centres, libraries and parks have no requirement to be “EV ready,” and so design features are not being roughed-in to support public charging in the future. This results in costly and time-consuming retrofits having to be done after building to accommodate EV charging infrastructure. Changes in the building code to enforce “EV readiness requirements” may help to alleviate this issue.

Electricity “demand charges” pose another challenge, as it is extremely cost-prohibitive to offer fast charging (50kW+) on a commercial basis. Alternate rate structures should exist for larger consumers. For EV charging stations that are still at a low level of consumption, the cost of demand charges eliminates the commercial viability of providing fast charging above 50 kW. Consumers are coming to expect faster charging (100-350 kW), and this will be a requirement to encourage greater adoption of EVs.

**Key Recommendations:**

Alectra is supportive of the government’s \$91 million investment to help make EV chargers more accessible to drivers across the province. The following recommendations are presented for your consideration to support the Ministry’s program design.

*Consideration 1: Utility impacts*

In administering its programs, the government should ensure that customers seeking additional power demonstrate that they have communicated with their utility to ensure that sufficient power is available. This will prevent projects that are not feasible from a cost, timing, or technical perspective from going through an application process with the Ministry. Projects that can proceed within a facility’s existing service should not require utility engagement, but information on customer projects can be helpful for utility planning.

*Consideration 2: Grid constraints and resiliency*

The Ministry should consider grid impacts and resiliency, especially in rural and northern areas of the province, when it comes to increased accessibility to charging infrastructure. With extreme weather events becoming more prevalent, some level of resilience should be considered to prevent stranded drivers. This could include battery backup, or some other type of backup generation source in events of prolonged outages. The Ministry should consult with

utilities prior to selecting locations to ensure that locations are able to support the required infrastructure, that resiliency benefits can be maximized, and that cost structures can be made more efficient.

*Consideration 3: Creation of a multi-ministry working group to better serve the public*

Alectra understands the complexity and interconnectedness of EV charging infrastructure across the province, which is why we recommend the creation of a multi-ministry working group which encompasses Transportation, Energy, Infrastructure, Municipal Affairs and Housing, and other related ministries to ensure the best possible experience for EV users across Ontario. It would be helpful to have respective roles clearly defined within the process, and to know who is working on which files as they pertain to EV charging infrastructure. This will not only result in benefits to end-user consumers but will help to enhance the province's program design and policy direction.

*Consideration 4: Building awareness and ongoing education*

Alectra believes that education and awareness is an important component of increasing accessibility to EV charging infrastructure, and the wider charging network across the province. Utilities are placed in the perfect position to build awareness and provide ongoing education due to our access to customers and customer data. With resources dedicated to assist customers with navigating Ontario's interconnected EV charging infrastructure, the ministry's programs will have a better chance of success, and ultimately will enable customers to make educated decisions when charging their existing EVs or when researching new EVs.

*Consideration 5: Operations and Maintenance*

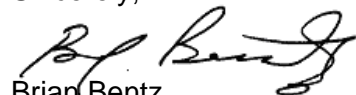
We have seen that EV chargers are sometimes not well maintained, and this can lead to them ceasing to operate over time. The federal government has recently recognized this in its funding through the Canadian Infrastructure Bank, which is tied to up-time performance. The provincial government should also incent availability to ensure that its investments in infrastructure provide long-term dividends to drivers.

*Consideration 6: Network capabilities*

The Ministry should ensure that charging stations it installs are networked and capable of providing managed charging services. Given that this equipment is likely to be in the field for 5-10+ years, it is prudent to build in capability now that may be required over its lifespan.

Thank you for the opportunity to provide comments and please feel free to reach out should you have any questions about our submission.

Sincerely,



Brian Bentz  
President and CEO  
Alectra Inc.