August 27, 2025

BY EMAIL: [redacted]

Ms. Lesley Gallinger
CEO, Independent Electricity System Operator
Toronto, Ontario

Dear Ms. Gallinger:

Re: IESO's refusal to evaluate the potential for EV batteries to help meet Toronto's electricity needs during next 20 years

As you know, the Independent Electricity System Operator (IESO) is undertaking a Local – Achievable Potential Study (L-APS) to evaluate the potential for energy efficiency, demand management, renewable energy and energy storage to meet Toronto's electricity needs during the next 20 years.

Mobile (EV) batteries, when combined with bi-directional chargers, have the potential to provide power back to the grid when needed. As a consequence, they have the potential to help phase-out the Portlands gas-fired power plant on Toronto's waterfront.

I am writing to respond to the IESO's August 18, 2025 memoradum ("Memorandum on Consideration of Bi-directional Charging in Non-Wires Analysis) which outlines why the IESO is refusing to evaluate the potential for EV batteries to help meet Toronto's electricity needs during the next 20 years.

According to the IESO's Memorandum:

"V2G/B [Vehicle-to-Grid/Buildings] is a promising but nascent technology. Presently there is deep uncertainty about the near-term business case and scalability of V2G/B programs and significant barriers, which means the IESO does not have confidence that a program could be successfully delivered in the **near-term**. For this reason, V2G/B is not presently considered a

feasible non-wires option and was excluded from the Local Achievable Potential Studies." [emphasis added]

We agree that there is deep uncertainty about the **near-term** business case for using EV batteries to supply power back to the grid at a meaningful scale. However, we do not believe that this fact is a valid reason for refusing to include this option in the IESO's L-APS for the following reasons.

1. The IESO is in the process of developing an Integrated Regional Resource Plan (IRRP) to meet Toronto's electricity needs during the next 20 years, not just during the near term. Therefore, the Toronto L-APS study should evaluate all options that have the potential to cost-effectively meet Toronto's electricity needs on a meaningful scale during the next 20 years.
2. As the IESO's Memorandum acknowledges, the storage capacity of Toronto's EV batteries during the next 20 years "is undoubtedly large".
3. Furthermore, it is reasonable to assume that the economic potential for V2G/B will also be large since the cost of bi-directional chargers is almost certain to fall dramatically due to mass production and economies of scale.
4. The purpose of the IESO's L-APS is to evaluate the technical, economic and achievable potential of Toronto's electricity resource options. We agree that there are significant technical and regulatory barriers that are constraining the near-term achievable potential of V2G/B. Therefore, there is a need for the L-APS to describe and quantify these barriers; and outline a strategy to remove them so that we can maximize our ability to harness the full cost-effective potential of V2G/B as soon as possible.

Conclusion

As I am sure you are aware, free EV charging is now available in Britain and France for EV owners that provide power back to the grid when it is needed.

Please direct your staff to include V2G/B integration in your L-APS for Toronto's 20-year Integrated Regional Resource Plan to help ensure that we can phase out the Portlands gas plant ASAP, at the lowest possible cost to ratepayers.

Yours sincerely,

Jack Gibbons
Chair

cc. engagement@ieso.ca