Elson Advocacy

September 18, 2024

Ms. Nancy Marconi
Registrar
Ontario Energy Board
2300 Yonge Street, 27th Floor
Toronto, Ontario M4P 1E4

Dear Ms. Marconi:

Re: Toronto Hydro 2025-2029 Rates
EB-2023-0195

I am writing on behalf of Environmental Defence to provide submissions on the unsettled issue in this proceeding – the proposed innovation fund. For the reasons outlined below, Environmental Defence asks that the OEB approve the fund with two adjustments that would help to avoid duplication and maximize the value of the proposed work.

Innovation Needed to Minimize the Cost of Electrification

The innovation fund is an important step to help reduce costs in the face of the looming energy transition, including the huge growth in demand that is expected to occur due to electrification. This transition is the most important issue facing electricity customers today. There is a consensus that the transition will involve major increases in electricity demand, which will require significant investments in the electricity distribution system. However, this need not necessarily result in increased energy costs for customers, because (a) the increased distribution costs will be spread out over increased consumption and (b) the transition comes with opportunities to deliver electricity in ways that are better and cheaper than the status quo. The proposed fund will be exploring ways to achieve that goal of better and cheaper options for electricity distribution customers.

The small investments in innovation proposed by Toronto Hydro are worth the potential benefits in light of the major investments that will be needed to address ongoing electrification. There are many ways to increase distribution capacity to meet increasing supply, and some will be much more expensive than others. One divergence is whether to remain with the current hub-and-spoke model, which involves large-scale investments in distribution and transmission lines in order to move power from distant generators to customer centres. A model that involves more distributed generation can reduce those distribution and transmission costs. There are also opportunities to address electrification more cost-effectively by reducing system peaks and increasing energy efficiency. The innovation fund pilots will address those important topics: distributed generation, peak shaving, and energy efficiency.[1]

[1] Exhibit 1B, Tab 4, Schedule 2, Appendix A

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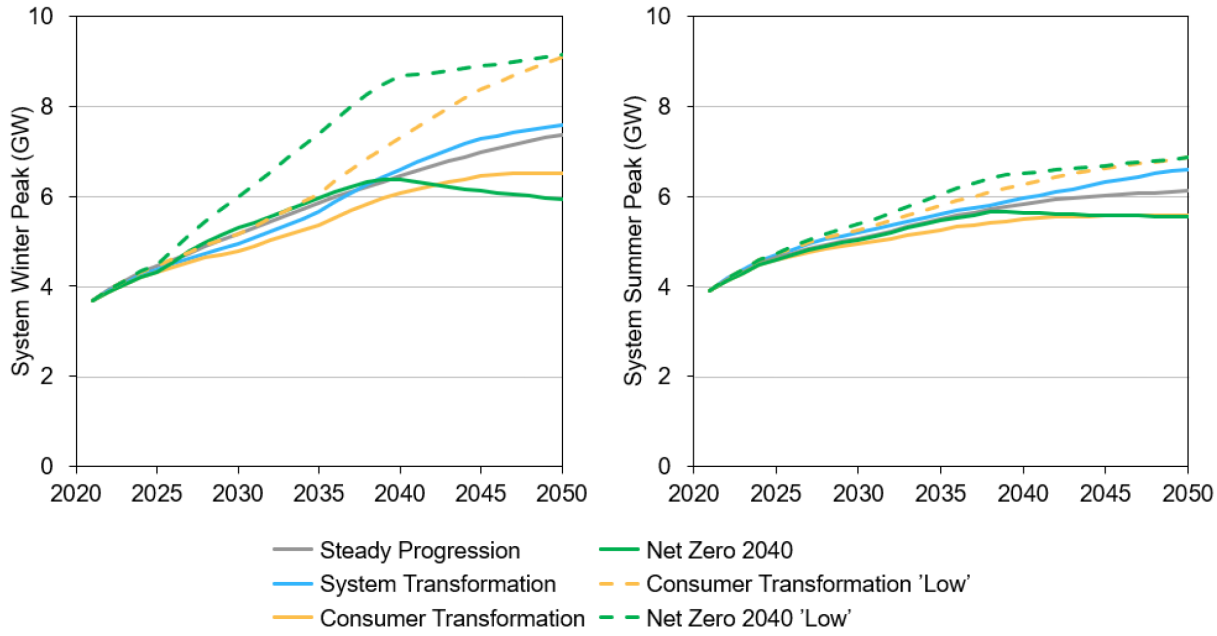
We acknowledge that the potential cost savings cannot be quantified with any accuracy at this stage. However, that should not be a reason to reject the fund. This kind of foundational work is necessary, but cannot be linked to cost savings as you would with a specific project.

The following figure from the Future Energy Scenarios modelling prepared for Toronto Hydro in this application highlights the high degree of electrification that is likely as well as the importance of measures to mitigate the build-out of distribution assets to meet the increased demand. The below figure shows that summer and winter peak demand greatly increases in all scenarios. However, the dotted lines represent scenarios with low levels of efficiency measures, demand side flexibility, and renewable generation. In those scenarios, the winter peak demand is in the range of 3 GW higher than necessary. It is certainly worthwhile investing now to explore innovative approaches to avoid that large unnecessary increase in system peak.



[2]

One might ask whether Toronto Hydro should be spending on innovation as a distributor, instead of all innovation funding flowing through the OEB or IESO. We believe there is an important role for distributor-driven innovation. Most importantly, distribution customers benefit if their distributor is able to pilot and test innovative technologies and approaches in their own distribution system with their own staff. This has at least two benefits. First, it helps to ensure that the technology or approach will work with the unique aspects of a distributor's system and service area. Second, it provides knowledge and experience to the distributor's employees. Both of these factors are critically important for a distributor seeking to implement the kind of innovation that we need to address the energy transition in a cost-effective manner.

[2] Exhibit 2B, Section D4, Appendix B, p. 80.

Proposed Improvements

Environmental Defence proposes that the following criteria be added to the fund:

- **Duplication avoidance:** Projects shall not be pursued unless Toronto Hydro has conducted a review of similar projects in North America to ensure that duplication is avoided and lessons are learned from projects conducted by other entities.

- **Results:** Toronto Hydro shall post a report and any detailed data resulting from the projects on its website so that other utilities benefit from the lessons learned and conduct their own analysis using the data.

The first criteria would require that Toronto Hydro conduct a review of similar projects in North America before pursuing the project. This would help to avoid duplication and ensure that Toronto Hydro's projects are appropriately informed by what others have done.

The second is that results are shared, including detailed data. We have found with other innovation projects that distributors tend to share only high-level summaries. By requiring full data sharing, we can ensure that the benefits of these projects are maximized.

Toronto Hydro has not provided any comments on these two criteria earlier in the process and may support them, such that the OEB does not need to impose them as conditions. We therefore ask that Toronto Hydro expressly address these in its reply submissions.

Conclusion

Rejecting the proposed innovation fund would be penny wise but pound foolish. As an energy sector, we need to be focused on the major work that needs to be done to electrify the province and how to do that in the most cost-effective way possible. In the context of those electrification costs and Toronto Hydro's overall budget, the innovation fund is a very small but very prudent investment.

Yours truly,

Kent Elson

CC: Parties to the above proceeding