Feedback Form

Local Achievable Potential Study Webinar – August 21, 2025

Feedback Provided by:

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To promote transparency, feedback submitted will be posted on this engagement webpage unless otherwise requested by the sender.

Following the Toronto Local Achievable Potential Study (L-APS) webinar held on August 21, 2025, the Independent Electricity System Operator (IESO) is seeking feedback on the draft findings. A copy of the presentations as well as a recording of the session can be accessed from the engagement web page.

Please submit feedback to engagement@ieso.ca by September 11, 2025.

Topic	Feedback
What feedback do you have on the L-APS draft findings?	See Below

Topic	Feedback
Is there additional information that should be considered before L-APS findings are finalized?	See Below
Are there specific modelling methodology or assumption topics that you would like to see discussed in the final public report?	See Below
How can the IESO best communicate with communities and stakeholders on actioning the additional electricity demand-side management opportunities identified in the study?	No comment

General Comments/Feedback

Thanks to the IESO for completing the LAP study in little time and making it available for comment.

The leaps from having a presentation with little detail to having a copy of the granular parameters to a summarized document are all welcome exercises.

We are asked to accept a number of things as being true. We are asked to accept that the demand forecast is accurate with no alternatives on placing some of the load (e.g. datacentres being built closer to nuclear generation). We are asked to accept that the only supply capable of meeting demands is expensive, risk plagued nuclear power. We are asked to accept that the potential of generating inexpensive, quick to build, pollution free wind and solar renewable power locally is minimal. We are asked to accept that only after building a third line into Toronto – years into the future – can we begin to lower reliance on the Portlands Energy Centre. We are asked to accept that because of our northern location that solar is less suitable – despite the example of other northern countries.

We are asked to believe in the sanctity of the model without reference to why. Is this the best (or only) model available? What is the track record of similar studies in comparison to results actually achieved? Were there any limitations on the data available for the model?

At the same time, we are asked to disbelieve or ignore other things. We are being asked to ignore all the stories of how renewables are being applied around the world. We are asked to disbelieve that a significant amount of power can be produced within the confines of Toronto. We are asked to disbelieve that the moratorium on Lake Ontario wind power can be lifted even after the required scientific studies were completed in 2016.

Sadly, this is not a literary novel where we can be asked to suspend disbelief in order for the story to continue.

To begin with, the three spreadsheets containing the commercial, industrial and residential measure characteristics might be enhanced by some text which explains (as least for some of the larger potential areas) how the parameters for Technical to Economical to Achievable were sized. I find that the technical potential squeezed to the achievable potential to lack ambition in any area. I note that the "IESO Measure and Assumption List" for each of the parameter sources is not a hyperlink like many of the other sources and I ask for the list to be released.

The text of the draft report is heavy on the process of the model and the inputs to it. The report seems to lose sight of the purpose of the study which is to identify how Toronto can contribute to meeting it's future electrical demand. The quickest and least expensive being an EE program. The next quickest is to achieve whatever solar potential the city has to offer combined with an enhanced DER program. Rather than setting ambitious goals it seems to get mired in "No regrets" minimal targets without even the verbiage on how such low bar targets can be achieved. It seems the IESO wants to set a target that won't cause them embarrassment as an institution. Where is the spirit of the Ontario government's Red Tape Reduction program?

The original Demand calculations need to be validated by an Independent Third Party given some of the past significant variances on demand calculations. The cost of such validation may result in the single most significant reduction in demand.

The draft does not detail some important elements. While a variety of sources are indicated in the data there is no reference to past or current EE programs (e.g. Toronto Hydro and Enbridge) to show the relative performance in comparison to cost. There is no reference case to a peer city or region which shows results achieved relative to Toronto (e.g. Los Angeles or California which has the population of Canada and was able to produce over 100 percent of electricity requirements from solar and wind renewable energy sources for over 100 days in 2024).

The draft does not reveal that electricity rates are being subsidized and removal of these subsidies would incent consumers to reduce consumption and free up public dollars to invest in the least costly EE and inexpensive, fast, clean wind and solar renewables.

The draft does not point out there are side benefits to efficiency and wind and solar renewables including cleaner air and lower health costs.

As long as the IESO continues to back the mantra featured in the Ontario Government's "Energy For Generations" that, uncosted, nuclear power is **affordable**, reliable and clean without balancing it to risks, timeframes and alternatives, there is doubt about what can actually be achieved.

The study does not compare the cost of nuclear generation plus the third line to the cost of either Lake Ontario wind power or energy saved or generated within the City of Toronto.

In summary:

1. Provide detailed examples for Solar + Battery showing the calculations involving Technical, Economic and Achievable potential.
2. Provide the "IESO Measure and Assumption List".

3. Have an independent Third Party validate original Demand calculations.
4. Provide details of the past or current EE programs (e.g. Toronto Hydro and Enbridge) to show the relative performance in comparison to cost.
5. Provide a reference case to a peer city or region which shows results achieved relative to Toronto be included.
6. Add text to indicate electricity rates are being subsidized and a description of what impact removal of these subsidies might have.
7. I look forward to hearing what pilot program will be setup in Toronto to test bi-directional charging.
8. Provide the assumption descriptions provided on each of the measures in scope – e.g.:
    a. For DERs, what is the technically feasible, economic potential and achievable potential for solar? Does the economic potential take into account the expected continued decline in cost of solar? What is the expected contribution of solar panels to the electrical supply year by year? Other jurisdictions have extended the use of solar beyond rooftops and parking lots to include such applications as balcony, fences, train tracks and beside roadway sound barriers – does the L-APS take these into account?
    b. For energy efficiency, what are the total number of structures available for heat pumps and how many are expected to be in use year by year? Is there a description of the electrical characteristics of heat pumps and will their efficiency increase? Does the L-APS have assumptions related to the use of public transit and how an incentive to use public transit might impact potential savings on EV charging? What assumptions does energy efficiency area have on time-of-use rates and how load shifting could flatten peak demands?
    c. For Demand Response, how many HVAC units are expected to be in use and how many are expected to be in the program year by year? Is there any description of electrical characteristics of HVAC units and expected increase in efficiency? What assumptions are made on Toronto weather during the course of the study?
9. Indicate in the report whether buildings being cooled by Enwave or being warmed through heat recovery are included in the model
10. Include side benefits from renewables such as reduction in GHG, resilience from local generation and health costs – will any attempt be made to include these in the final documents?
11. Discuss the benefits of maintaining stable, long-horizon EE budgets for existing programs and targeting deep retrofits in Commercial & Industrial and code-adjacent retrofits where building codes limit new-build savings.
12. Include suggesting funding customer-side enablers - workforce, outreach, financing to maximize uptake of EE.

13. Add a section in the report that looks at elements of the problem – not just the whole problem. For example, prioritizing non-wires portfolios at the most constrained stations/feeders to turn neighbourhood potential into deferred wires projects.
14. Clarify: Page 20 – What are the Network Hosting Capacity Limits for DER? Do they fall below the potential additional sources?
15. Page 22 – Achievable Potential – Distributed Energy Resources – Solar Photovoltaic (PV) systems – it would be very helpful to see a detailed example of how Technical Potential became Achievable Potential including details of the calculations.
16. Clarify:
    Page 22 – Achievable Potential – Distributed Energy Resources – Solar Photovoltaic (PV) systems – "the calibration of Bass diffusion curves used in projecting future adoption across residential, commercial, and industrial sectors was informed by the existing contracted distributed generation from 2025 through 2029" - what do the existing contracted distributed generation from 2025 through 2029 have to say?

    Page 23 – "a 10% attachment rate—outlined in Appendix C—was applied to estimate the combined potential of the Solar PV + Battery Storage measure." Does this mean that of all the buildings with solar that 10% will be attached to the grid?

    Page 23 – "The Bass diffusion curves were developed with upper bounds on market share constrained by technical feasibility: 11.98% for the residential sector and 36.20% for commercial and industrial sectors16." Does this mean that 11.98% of all residential buildings will have solar and 36.20% of commercial and industrial will have solar?

    Page 23 – "The calibration process, which incorporates historical data and growth rates derived from the IRRP forecast for contracted solar, results in more conservative and realistic adoption trajectories." What does the IRRP forecast for contracted solar say?

    Page 23 – "While network hosting capacity limits from the IRRP forecasts were applied for each substation, those did not turn out to be binding constraints since the projected installations were lower than the limits." At what levels would the substation limits come into play?

    Page 43 – "This segmentation yielded an initial estimate of available roof areas to deploy solar there by determining the technical potential of 27.2% for the residential sector and 45.03% for the C&I sector.' How were the figures 27.2 and 45.03 arrived at?