# Feedback Form

## Regional Electricity Planning in Toronto – December 5, 2024

### Feedback Provided by:

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Title: Submitting as a private citizen of Toronto

Organization: This submission not on behalf of an organization

Email: Click or tap here to enter text.

Date: 2025-01-02

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

Following the Toronto regional planning webinar held on December 5, 2024, the Independent Electricity System Operator (IESO) is seeking feedback on the draft regional electricity needs and the Local Achievable Potential Study. A copy of the presentations as well as recordings of the sessions can be accessed from the engagement web page.

**Please submit feedback to engagement@ieso.ca by January 3, 2025.**

## Regional Planning - Draft Electricity Needs

| Topic | Feedback |
|---|---|
| What feedback do you have regarding the draft electricity needs identified? | Dave Devereaux notes that in a fully decarbonized economy the demand would be higher than the current plan. This seems at odds with the party line that the Integrated Regional Resource Plan is consistent with TransformTO and an affirmative answer to a question during the presentation as to whether it assumed 100% electrification of heating. If that were true, the demand would be much higher (as Dave Devereaux inadvertently let slip). These inconsistencies should be resolved. |
| What feedback do you have regarding how to meet the electricity needs to inform upcoming milestones? | The spin about the electricity system supporting economy wide decarbonization glosses over the fact that intermittent sources like wind and solar need back up by gas generation and that a large portion of any additional demand (e.g. resulting from electrification) will be served by gas, limiting the extent to which electrification can achieve net reduction for the Province. There was no indication in the presentation as to what if anything will ever replace gas. The P2D report suggested hydrogen, which is not credible. The IESO publishes what type of generation is operating each hour, revealing that gas generation was on almost every hour in 2023, therefore any additional demand, e.g. from new heat pumps, would be effectively supplied by gas at less efficiency than gas furnaces. This will get worse before it gets better, hopefully in the 2030's and 40's, but it would be good to have it explained credibly exactly how that could happen. |
| What additional information should be considered as we screen high-level potential options? | If you were, as you say, conscientiously looking at all options to mitigate new demand, you should be looking more closely at the potential of thermal energy networks, which could flatten the peaks with thermal energy storage at 1/200th the cost of electricity storage. |
| What additional information should be provided in future engagements to help understand perspectives and insights? | Complementarily, the OEB and LDC's should take more seriously the advocacy by the Ontario Society of Professional Engineers for smart retail rate structures to maximize potential of smart meters. The Ultra-Low Overnight rate introduced recently was just a baby step in |

| Topic | Feedback |
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| | this direction. A future low emissions grid will have surplus non-emitting generation not just at night, but none of this low cost, low emissions energy is available to domestic consumers due to the non-optimal rate structure. More should be charged for demand, and less for energy. Rate reform could go a lot further to lower consumers energy costs and emissions, especially aggregated through thermal networks with thermal energy storage using automatic load control and variable speed heat recovery heat pumps, already common in Europe. |

## Local Achievable Potential Study (LAPS)

| Topic | Feedback |
|---|---|
| What feedback do you have on the scope that the IESO should consider? | Click or tap here to enter text. |
| What feedback do you have on the methodology that the IESO should consider? | Click or tap here to enter text. |
| What feedback do you have on the potential uses for the LAPS that the IESO should consider? | Click or tap here to enter text. |
| What additional sources or regional policies and trends should be considered? | Click or tap here to enter text. |

## General Comments/Feedback

Questions in my previous feedback in April were not answered. I request a meeting preferably in person. I could come to your office in down-town Toronto, to discuss basic questions not only about the TIRRP but also the P2D report. For example, P2D assumes 100% electrification by heat pumps. But there are many types of heat pumps. What % were assumed to be air source and what % ground source? What average province wide effective Coefficient of Performance was assumed in the coldest days? How was the diversified peak heating demand for the Province estimated?
My specific interest in these questions is driven by my role over the next 3 months as contributing author of a report to be published the end of March by the Boltzmann Institute entitled Two Pathways. It will examine the cost to consumers and emission reducing effectiveness of policies

encouraging air source heat pumps versus thermal networks. It is partly supported by taxpayers through the Net Zero Advisory Body's Climate Action Awareness Fund, administered by Environment Canada. So, we want to do a good job, which requires getting our facts straight. That's why we want to better understand the IESO's viewpoint.