

Feedback Form

Regional Electricity Planning in Toronto – December 5, 2024

Feedback Provided by:

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Date: December 28, 2024

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?	See General Comments/Feedback below.
What feedback do you have regarding how to meet the electricity needs to inform upcoming milestones?	See General Comments/Feedback below.
What additional information should be considered as we screen high-level potential options?	See General Comments/Feedback below.
What additional information should be provided in future engagements to help understand perspectives and insights?	See General Comments/Feedback below.

Local Achievable Potential Study (LAPS)

Topic	Feedback
What feedback do you have on the scope that the IESO should consider?	See General Comments/Feedback below.
What feedback do you have on the methodology that the IESO should consider?	See General Comments/Feedback below.
What feedback do you have on the potential uses for the LAPS that the IESO should consider?	See General Comments/Feedback below.
What additional sources or regional policies and trends should be considered?	See General Comments/Feedback below.

General Comments/Feedback

My attention was drawn to the IESO slides which show the Portlands Energy Centre (PEC) maintained in the supply mix until 2044. I appreciate that a study will be done to look at alternatives to PEC. I propose that one

range of alternatives to examine is to gradually displace PEC with renewables with battery storage for when the sun does shine and the wind does blow. The increasing share of Ontario electrical energy provided by gas fired generators is contrary to demands of business for clean electricity. Replacing a fossil gas end use with electricity misses the mark when the electricity is produced from gas generation. <<>> For at least a couple of decades the arguments for electricity from gas have added that renewables are not mature or they don't provide electricity when "the sun doesn't shine and the wind doesn't blow". Those arguments seem to bear much less weight now as various jurisdictions have shown that a combination of renewables and gas can clean the air and drive down energy costs. This study shows the percentage of wind-water-solar by country (24-Countries100Pct-Q423-Q324). California, and other U.S. states, are having days when more than 100% of their energy requirements are provided by renewables and the rest is stored to supply some of the demand for overnight electricity (<https://electrek.co/2024/07/29/california-achieves-100-days-of-100-electricity-demand-met-by-renewables/> <https://theprogressplaybook.com/2024/04/08/these-12-us-states-now-get-most-of-their-electricity-from-renewables/>). Portugal is able to run entire days on renewables (<https://thepremierdaily.com/renewable-energy-portugal/>). The UK has days when the amount of electricity from wind turbines exceeds 50% of their energy requirements (<https://www.nationalgrid.com/stories/energy-explained/how-much-uks-energy-renewable>). China installed more solar capacity in 2023 than the rest of the world combined. That Ontario is not placing an equal or greater emphasis on renewables than they are with gas puts them as an outlier in comparison to the rest of the world. <<>> The August, 2024 ESMIA-Dunskey Report, commissioned by the Ontario Government, recommended that Ontario increase wind energy five-fold (Ontario was advised to ease off gas. Doug Ford is doing the opposite | The Narwhal). <<>> The Ontario Electricity Distributors Association in their Power of Local Conservation report (October, 2022) indicates that energy conservation and demand management (CDM) is the most cost-effective mitigation solution. Further, it states "In our estimation, by 2026, the proposed solution will eliminate 94% of the energy supply shortfall identified in the IESO's 2021 Annual Planning Outlook. By 2032, the energy supply gap will be eliminated, and the peak energy shortfall will be reduced by 55%" <<>> The Pembina Institute and Rocky Mountain Institute have concluded that solar and wind combined with energy storage and demand side management can largely provide the same service as gas and more cost-effectively. (Reliable, affordable: The economic case for scaling up clean energy portfolios, Pembina Institute, 2019). <<>> The Royal Bank of Canada Power Shift report (<https://thoughtleadership.rbc.com/wp-content/uploads/Power-Shift-Report-EN-1.pdf>) indicated "By 2040, Ontario could meet nearly 20% of its expected demand growth—or 28 terawatt-hour (TWh)—via economically viable conservation." <<>> The Ontario Clean Air Alliance (OCAA) has published studies (https://www.cleanairalliance.org/wp-content/uploads/2024/11/Toronto-Solar-Report-nov-2024-nov-21-v_01.pdf https://www.cleanairalliance.org/wp-content/uploads/2023/04/Great-Lakes-Wind-Report-apr-17-v_01.pdf) which indicate : "If many buildings and large parking lots in the city were to install solar systems, Toronto could generate up to 12 terawatt-hours (TWh) per year of clean energy (see Table 1). This is a staggering figure: equivalent to more than 50% of Toronto's total electricity consumption in 2023 (23.7 TWh)" and "Toronto's total solar potential in this analysis is nearly 6 times greater than the total output of the Portlands gas plant in 2023 (2.1 TWh)." <<>> The International Renewable Energy Agency (IRENA) indicated "The global weighted average cost of electricity from solar PV fell by 89 per cent to USD 0.049/kWh, almost one-third less than the cheapest fossil fuel globally." (<https://www.irena.org/News/pressreleases/2023/Aug/Renewables-Competitiveness-Accelerates-Despite-Cost-Inflation#:~:text=Between%202010%20and%202022%2C%20solar,the%20cheapest%20fossil%20fuel%20globally.>) <<>> Environmental Defence has indicated "Both onshore wind and solar are less than half as expensive as the cheapest fossil-fired electricity sources." ([3](https://environmentaldefence.ca/2024/02/08/a-green-</p>
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<<>> I will be looking with some expectations to see how quickly and what proportion of Toronto's electricity supply will be provided by renewables. Year after year, countries are increasing the amount of their electrical supply that comes from renewables and I ask myself, "Why not Ontario?" <<>> I was recently reminded of the emergency with the Alberta electrical grid, in January 2024, and how, just by asking, demand was lowered substantially within minutes. Conservation and demand management have a very significant role to play in Toronto. It is the most cost effective solution. Someone pointed out to me that Ontario Hydro ran a very successful advertising campaign in the 1970s with the theme "Wasting Electricity Turns People Off". <<>> Countries in Europe did not see an interruption in their gas supply coming at the beginning of the current geopolitical conflict between Ukraine and Russia. Similarly, recent events in the U.S. suggest that our gas supply for Toronto (which comes from the U.S.) may not be as stable in the future. Having an alternative source of energy, like renewables, will lessen our reliance on sources which we may have no control over. If the U.S. does impose tariffs and Premier Ford makes good on his statement of cutting off energy supplies to the U.S. there could be a retaliatory energy cut-off from the U.S. A low probability, but. <<>> The Ontario Gas Supply market is now down to a single supplier. As with any monopoly, excesses tend to take place with a single source. Reducing reliance on gas will reduce the risk that Toronto gets caught up in the excesses. <<>> The market is further skewed by the Ontario government subsidizing electricity bills and having rates remain stable for years. Being protected from paying the true cost of electricity does not incent people to conserve. Having rates remain stable impacts the ability of the electricity system for maintenance and expansion. <<>> That we are in a transition from energy from fossil fuels is undeniable – the supply of fossil gas is not unlimited and it will run out likely this century. The increased electricity demands are best served by lower cost, speed to market, reduced risk of cost/time over-runs and less pollution. In the face of these demands, who wouldn't want to displace gas with clean, affordable, low risk renewable energy. Given the importance this study is taking on. I hope the IESO supply requirements have been validated by an independent third party to minimize the risk of institutional bias. I note that several groups providing feedback to IESO's previous consultation expressed concern on the demand forecasts. <<>> I ask that the IESO publish the analysis behind whatever decision is made on how to supply Toronto the electrical power that it needs. I look forward to hearing the answer to the question, "Was it cost, reliability or some other factor that led to the decision?" <<>> I ask that commitments be made to establish pilots for various types of solutions. I hope for the reduced role for PEC to begin well before 2034. I hope "either/or" (either gas or renewables) thinking is avoided and I hope a third option "both" is given serious consideration. Alternatives frequently appear (<https://www.theguardian.com/environment/2024/dec/18/if-a-million-germans-have-them-there-must-be-something-in-it-how-balcony-solar-is-taking-off>). <<>> I agree that electricity is a public good just as clean air is. I note that the IESO does not have to concern itself with the health impacts associated with the electricity supply and it's focus is sufficient, reliable, low cost electricity. I share the IESO focus and, in addition, health concerns because of the state of the local Toronto airshed with cumulative emissions from all sources. PEC needs to be reduced to it's original status as a peaker plant as soon as possible to improve air quality in the local air shed.