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FEEDBACK PROVIDED BY:
Lyn Adamson
Dr. Mil Roy
Co-Chairs
Ontario Climate Emergency Campaign
[redacted])

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

Dear Ms. Gallinger:

Please see our answers to the feedback questions below.

What feedback is there on the options analysis?

We have a number of concerns about theIESO's draft Integrated Regional Resource Plan (IRRP) for
Toronto for a number of reasons.

1. it relies heavily on centralized electricity infrastructure

and an energy mix primarily supplied by nuclear and gas generation.
2 It does not include many of the cost-effective, distributed, and low-carbon

solutions that are essential to achieving the City of Toronto's TransformTO climate targets.
3 It does not present a complete and balanced evaluation of the full range of electricity pathways available to the city, especially those that would enable a just and timely energy transition.
4 The options analysis does not provide a **pathway for retiring the Portland Energy Centre (PEC) by 2035,** despite repeated and clear Council direction to do so.
5. There is an **over-reliance on large-scale nuclear supply** - from 48% to 75%. Much of this nuclear supply would NOT be available in the near term because of refurbishment schedules and construction timelines. This will result in reliance on fossil gas with excessive emissions, with unacceptable health and environmental impacts. Over-reliance on large, centralized power sources, unproven technology such as small modular nuclear reactors, means greater vulnerability in case a power plant goes offline. It also means less flexibility in meeting the fluctuating needs for electricity supply.

6. Nuclear is **extremely expensive** (e.g., new builds at 22–32¢/kWh) and creates dangerous wastes, with no feasible plan for long-term safe storage - for a million years. Canada's entire legacy of nuclear waste from the inception of its nuclear energy program remains temporarily and uncertainly contained, with potential for devastating mortality and long term consequences to countless Canadians in the event of a breach or leak.
7. This is a huge burden of care to place on coming generations.
8. It also is reliant on US technology (American reactors and American uranium) at a time when Canadians want to become less dependent on the US.
9. It is clear in ongoing global conflicts (such as the Russian invasion of Ukraine) that nuclear facilities are a massive vulnerability for deliberate attack. Nuclear energy unnecessarily and massively compromises our energy security.

10. The analysis does not include **rooftop solar potential** in scenarios, even though it could generate 4.9 TWh/year—enough to replace PEC's output and meet 15–25 % of projected new demand.

11. It must be noted that energy efficiency and conservation measures are the least cost and most benign ways to reduce demand and to keep electricity affordable for all. These technologies should be deployed for maximum use including at a higher cost than currently permitted in the plan. They will always be much less cost than generating new supply.

There is an **over-reliance on large transmission projects** rather than maximizing local, non-wired options such as rooftop solar, battery storage, and efficiency. Centralized supply and transmission of nuclear power and gas generation comes at the expense of Toronto's potential to lead in clean, distributed, and affordable energy. Solar and wind are great investments

because the energy is FREE and environmentally benign, whereas nuclear and fossil gas have significant negative environmental, health and economic consequences.

Health impacts:
PEC was identified as the largest single emitter of health-harmful nitrogen oxides (NOx) in Toronto. As more research emerges on health impacts of NOx, exposure guidelines have become more stringent with the realization that health harms occur even at very low levels of exposure, such that there is lack of consensus on what might constitute an entirely safe level of exposure. Recent data on PEC emissions from the National Pollutant Release Inventory (NPRI) indicates that NOx emissions increased in 2024, as did emissions of particulate matter (PM) and volatile organic compounds (VOCs). Pollutants generated from gas-fired electricity facilities such as PEC cause multiple serious health impacts ranging from asthma, fatal chronic obstructive lung disease, heart disease, cancer, pregnancy risks harming newborns and Alzheimer's, to increased hospital admissions and premature death. The potential health harms will be amplified by the planned housing and community development to densify the population immediately surrounding PEC. These health dangers indicate an urgent need for the phaseout of the plant.

What feedback is there on the draft recommendations?

These recommendations will leave Ontario with massive debts for outdated and stranded assets producing expensive and polluting electricity that no one wants to buy.
We need to rapidly increase local renewable energy and energy efficiency to lower the electricity bills of Toronto's hard-working families and to help our industries be more competitive.

We are asking the IESO to revise the draft IRRP recommendations to align with the City of Toronto's climate commitments—including the Council-endorsed **phaseout of the Portlands Energy Centre (PEC) by 2035** and the broader **TransformTO goal of net-zero emissions by 2040.** The IRRP must include a clear and transparent plan to retire PEC on schedule, with interim milestones. A mix of clean, local solutions will enable its replacement, and these options need to be outlined.
We are calling for the IRRP to **prioritize distributed and demand-side energy solutions, including rooftop and balcony solar, community energy storage, and energy efficiency** programs. These are resources that are **cost-effective, scalable, and underutilized** in the current draft plan. The IESO should also model the impacts of the **removal of policy barriers to offshore wind development** and incorporate this potential supply into long-term planning.

These changes would produce a cleaner, more resilient, and more equitable electricity plan that positions Toronto as a **national leader in community-powered climate action**.

The IESO should facilitate an expert third party health assessment of the final proposal including stakeholders such as Toronto Public Health among others, and ensure proposed plans are revised if necessary to meet or exceed health standards.

What information needs to be considered regarding these draft recommendations?

The IRRP must incorporate the following:
Independent modeling on distributed and demand-side energy solutions, namely on the potential of rooftop solar, along with battery storage and demand reduction, as an alternative pathway to cover a major share of demand growth. The analysis must also identify how utilities, the IESO and governments can close any gap between the technical and economic potential of DERs and the achievable potential.
● Cost data on energy efficiency and solar compared to the costs of new nuclear (SMRs) and gas reliance, **including health care costs and other climate damages**, especially when grid and system costs are considered.
● Equity considerations, particularly the opportunity to reduce bills and support local ownership through distributed **energy** and fair compensation for solar exports.
● The IRRP does not take into account global and national trends toward **grid decentralization**, and technologies responding to flexible demand, such as V2G. It does not align with the fact that **92.5% of all new electricity capacity added globally is now clean renewable energy**. The current proposal risks leaving Ontario behind as the global economy rapidly transitions to renewable energy.
-With many hard-working Canadians seeking jobs as US tariffs hit and decimate multiple job sectors, it is well documented that **the same investment in the clean energy sector generates triple the number of jobs as the fossil fuel sector**
- The current proposal jeopardizes our energy security and sovereignty by promoting centralized energy systems more subject to large scale blackouts/brownouts, increasing vulnerability to deliberate targeted attacks, and increasing our dependence on US energy. The majority of nuclear technology and fuel, as well as gas currently burned in Ontario is of US origin.
The IRRP must incorporate the following:
The City of Toronto's TransformTO target is 65% below by 2030 and 100% Net Zero emissions by 2040
● The City of Toronto's explicit climate and health mandate to phase out gas-fired power at PEC by 2035.
● Independent modeling on distributed and demand-side energy solutions, namely on the potential of rooftop solar, along with battery storage and demand reduction, as an alternative pathway to cover a major share of demand growth.
The analysis must also identify how utilities, the IESO and governments can close the gap between the technical and economic potential of DERs and the achievable potential.

What should be considered regarding the third supply line before the regional plan is released?

The IESO is proposing that a 900 MW high-voltage direct current transmission line be built underwater in Lake Ontario to connect downtown Toronto to Hydro One's high-voltage transmission network east of Oshawa with a target in-service date of 2034. This proposal is in the public interest. A third unique transmission corridor to downtown Toronto will significantly increase Toronto's security of supply.

The third line must not be viewed as a substitute for local decarbonization. The IESO should demonstrate how the line supports the phaseout of Portland's gas plant, model scenarios where the line is paired with offshore wind development and increased DER deployment and commit to integrating this project with a broader decarbonization pathway. The IESO must not let the long lead time delay more immediate investments in solar, storage and efficiency but rather is a reason to invest NOW in solar, storage, efficiency and wind generation.

The third line will enable a Lake Ontario offshore wind farm to supply Toronto and facilitate increased renewable electricity imports from eastern Ontario, Quebec and Nova
Scotia.

How can the IESO continue to engage with communities and stakeholders as these recommendations are implemented, or to help prepare for the next planning cycle?

The community voice is not adequately represented in this current engagement. Additional engagement opportunities that allow a more user-friendly, less technical, sharing of information and an open dialogue with concerned residents and groups are needed. Full and transparent information about the pros and cons of wired and nonwired solutions must be made available including consideration of the costs and savings for residents, the air quality, health and climate impacts, and our dependence on the United States for fossil fuels and other inputs.