



Canadian Nuclear Workers' Council

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March 1, 2021

Toronto City Council
c/o Ms. Marilyn Toft
City Clerk's Office
Toronto City Hall
100 Queen Street West
Toronto M5H 2N2
clerk@toronto.ca

Re: Member Motion MM28.21 – Calling on the Province to Phase-Out Gas-Fired Electricity Generation

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2021.MM28.21>

Dear Ms. Toft: Please distribute this letter to the members of Toronto City Council.

I am writing to you on behalf of the Canadian Nuclear Workers' Council (CNWC) regarding Member Motion MM28.21 introduced by Councillor Jennifer McKelvie and seconded by Councillor Mike Layton.

As you may know, the Ontario Clean Air Alliance (OCAA) has been promoting similar motions in Municipalities across Ontario as well as a petition to the Government of Ontario. The motions and petition all call for phasing out natural gas-fired electricity in Ontario. Significantly, the OCAA has also long called for the elimination of all nuclear generation in the province. The truth is that if we are to maintain our reliability standards and meet increasing needs from future electrification, we will need either substantial nuclear or substantial gas capacity in our generating portfolio. Eliminating both is not an option, and eliminating nuclear ensures an increasing reliance on CO2 emitting gas.

We salute and share the desire to decarbonize Ontario's electricity supply, however we are concerned that the OCAA's policy prescriptions are self-contradictory and unworkable, and that the information they provide in support of those policies is misleading. Ontario's electricity system is very complex, the electricity provided by different generation sources is not interchangeable, and the planning for Ontario's long-term energy supply needs to be mindful of that. A reliable supply of electricity is essential for our way of life.

We too are deeply concerned about the looming threat of increased gas generation in Ontario's supply mix. However, our concern is tempered with a technical understanding of our electricity grid's operational realities. Gas should not be used to generate baseload electricity, but as professionals working in the electricity sector, we also recognize that, used judiciously and minimally, gas generation has important reliability enhancing properties, such as the ability to ramp up generation very quickly to compensate for sudden losses in intermittent renewable sources, and to quickly maneuver to meet rapid changes in demand in a way that supports less maneuverable sources such as nuclear and hydro generation.

Our current challenge is not to eliminate gas entirely, but rather to keep gas out of our baseload supply mix, and to use it only minimally and strategically, as a mechanism to enable the rest of Ontario's zero carbon supply mix of nuclear, hydro and renewables to keep on providing Ontarians with the benefit of one of the cleanest most reliable electricity grids anywhere in the world.

The OCAA say that when Pickering ceases generating baseload electricity, Ontario can replace that supply solely with wind, solar, and hydropower from Quebec. This is simply not possible. Wind and solar are intermittent and currently require backup from a reliable source of generation like hydro, nuclear, or natural gas. While we understand the appeal, the idea that hydroelectricity imports from Quebec can replace Pickering's power is little more than wishful thinking. Ontario and Quebec do regularly export and import electricity with one another. On cold winter days Quebecers use that electricity to heat their homes. On the hottest summer days, Ontario imports from Quebec to help meet the peak demands from air conditioning. This arrangement is a beneficial one, which helps both provinces to improve their reliability, but it is not infinitely expandable.

Even if Quebec had a year-round surplus of electricity to sell to Ontario it would require significant upgrades to our transmission system. That would be a substantial investment and could take a decade to build.¹

The truth of the matter is that Quebec does not have a surplus of power available to sell to Ontario year-round. And Quebec's recently announced 2030 Plan for a Green Economy² rests largely on massive electrification of transportation and heating, which will further decrease supply available for export to Ontario.

Increasing Quebec imports to Ontario's already clean grid would also divert clean electricity from other jurisdictions, such as Maritime Provinces and US states that still rely heavily on coal and have no other emissions-free sources of electricity.

The option of massively increasing imports of electricity from Quebec just doesn't make sense from a system planning, environmental or economic perspective. The Society of

¹ Ontario-Quebec Interconnection Capability - A Technical Review;

<https://www.ieso.ca/-/media/Files/IESO/Document-Library/power-data/supply/IntertieReport-20170508.ashx>

² <https://www.quebec.ca/en/government/policies-orientations/plan-green-economy/>

United Professionals directly addressed these issues in a recently released report “Can Ontario meet its baseload power needs with Quebec imports?”³

Ontario cannot and will not meet its baseload electricity needs with electricity imported from Quebec. Intermittent renewables are not reliable enough to be suitable for baseload generation. Hydro produces clean and reliable baseload in Ontario, but there is very little ability to add new generation to meet the coming demands of electrification. This leaves Ontario with two realistic options to produce reliable baseload electricity, nuclear or gas.

The OCAA say they are concerned about clean air and yet they have a long-standing opposition to nuclear power, which is by far Ontario’s largest source of clean energy and which enabled the shutdown of our coal plants. Nuclear generation is *the one source* capable of keeping gas out of baseload and capable of actually keeping our air clean and our emissions low.

If we continue on our current path, or worse yet, follow the OCAA’s prescriptions, Ontario will have no option other than to rely increasingly on polluting natural gas to generate electricity.

We already know how to decarbonize energy. Nuclear power, with Canadian CANDU technology developed right here in Ontario, currently generates 60% of Ontario’s electricity and has already avoided more than a billion tons of CO₂ from entering our air. We are on the verge of a new great decarbonization, where we hope to electrify transportation and industry. For that, we need reliable, affordable nuclear power.

When Pickering stops generating electricity we will lose 3,100 MW of clean, reliable, affordable electricity, a reliable supply of medical isotopes and 4,500 high quality local jobs. We need to replace nuclear with nuclear. If we do not, it will not be replaced with imports or renewables. It will be replaced with gas, resulting in an additional 10 million tons of CO₂ per year⁴.

It might be better to call on the Government of Ontario to develop an evidence-based long-term planning process for our electricity supply that considers reliability, carbon emissions, air quality, jobs and the resulting price of power, and in so doing minimize the use of gas to the lowest possible levels needed for system reliability.

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³ https://www.thesociety.ca/can_ontario_meet_its_baseload_power_needs_with_quebec_imports

⁴ For a data-driven background to this letter, please see the report “Ontario, Quebec, and the Pickering Nuclear Station: the myth and the reality,” available at <https://cnwc-cctn.ca/ontario-quebec-and-the-pickering-nuclear-station/>