

67 Yonge Street
Suite 1040
Toronto, ON M5E 1J8

February 2, 2021



APPrO
ASSOCIATION OF
POWER PRODUCERS
OF ONTARIO

Toronto City Council
c/o Marilyn Toft
12th Floor, West Tower, City Hall
100 Queen St. W.
Toronto, ON M5H 2N2

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

Dear Councillors:

The Association of Power Producers of Ontario (APPrO) is a non-profit organization representing more than 100 companies involved in the generation of electricity in Ontario, including generators and suppliers of services, equipment and consulting services. We wish to express our concern with this motion to phase out gas-fired electricity generation, as it is premature and the factual basis to inform such a decision is incomplete.

APPrO's members produce power from many sources including water, natural gas, nuclear, wind, solar, and biomass, and produce more than 90% of the electricity produced in Ontario. Our mission is the achievement of an economically and environmentally sustainable electricity sector in Ontario that supports the business, environmental and social interests of electricity generators, consumers and the provincial economy.

In our view, this motion is premature because it does not consider the important planning work that is undertaken by the Independent Electricity System Operator (IESO), which recently released several important documents¹ related to resource adequacy and planning in Ontario, and which address many of the matters at issue. It ignores the practical current realities of Ontario's energy system and does not offer realistic solutions.

The IESO is the statutory body legislated by the province to plan for the resources needed to meet Ontario's future electricity needs, as well as determining the adequacy and reliability of the integrated power system. The IESO forecasts energy demand and

¹ 2020 Annual Planning Outlook & Resource Adequacy Engagements, January 26, 2021

capacity needs up to 20 years to ensure Ontarians have sustainable solutions well into the future.

To the best of our knowledge, the City has not reviewed and incorporated the latest planning information into the recommended Motion.

Electricity system planning depends on a comprehensive Ontario-wide view of supply-demand going forward that has been thoroughly tested to identify emerging supply gaps, realistic demand projections, technologies best able to meet our needs, rigorous cost-benefit analysis and the need for system reliability and flexibility. It cannot be short-sighted or politically motivated.

APPo supports a well-balanced energy system – one that enables the province to cost-effectively reach net-zero² GHG emissions by 2050 across all sectors of the economy. A reliable, clean, flexible and efficient electrical generation system is crucial to Ontario's economic health and environmental well-being. Ontario already has one of the cleanest electricity systems in the world, with 96³% of the energy produced from emissions free sources.

Emission reductions from the supply-side of Ontario's electricity system have been dramatic and well publicized. Ontario's legacy baseload nuclear and hydroelectric assets, coupled with shuttering of 6 GW of coal fired generation, and introduction of renewables (7 GW) and natural gas (5 GW), has resulted in an 80% reduction in our electricity's emissions intensity, from 0.2 tCO₂/MWh in 2005 to less than 0.04 tCO₂/MWh today.

Coupled with annual electrical demand (which has declined by 10%), we see a 90% net reduction of electricity generation emissions, or -30 MtCO₂e from 2005 levels.

Because Ontario generates most of its electricity from nuclear and hydroelectric sources, the carbon intensity of our electricity sector is very low — about 30 grams per kilowatt-hour in 2018 and 2019. By comparison, California's carbon intensity is more than seven times this amount and Germany is 12 times greater. The more of the economy we can get running on electricity, the lower our carbon emissions will be.

Today, more than 30% of Ontario's carbon emissions come from transportation. Powering cars, trucks, trains, boats and buses with clean electricity, rather than gas or diesel, will make a very significant impact.

APPo believes that it is possible to achieve further carbon reductions efficiently, especially by decarbonizing other sectors using Ontario's clean power. For example, addressing emissions from building heating and cooling is major initiative cities can undertake to decarbonize. Leveraging the significant investment made into cleaning Ontario's electricity sector to increase electrification makes economic sense and is the least costly path to decarbonization

² That is, achieving an overall balance between emissions produced and emissions removed from the atmosphere. It does not mean in absolute terms.

³ Canadian Energy Regulator (CER), 2018

Leveraging Ontario's excess supply of non-emitting electrical energy provides an opportunity to fuel switch from higher emitting fossil fuel powered vehicles and equipment with electrically driven alternatives. This can result in significantly lower emissions as well as better value created from domestic usage of intermittent renewables vs export.

Technologies like Electric Passenger Vehicles can lend themselves well to this model. If well planned, significant load can be added to the system with limited impact on generation, transmission, and distribution systems, while the customer can benefit from offset transport fuel cost savings in the region of \$1,000 / year.

Electrification also has potential to lower electricity rates by spreading fixed system costs over greater energy volume.

In the short to mid-term Ontario's current natural gas generation supply can play an important role in transitioning away from fossil fuels.

Some claim there are significant amounts of energy Hydro Quebec can supply to Ontario. In fact, HQ data⁴ suggests that they will have a capacity shortfall in the mid-2020s, about the same time Ontario's Pickering Nuclear Generating Station shuts down.

In any case sufficient transmission capacity to import such power currently does not exist, and would have to be constructed. However, according to the IESO⁵, "constructing a new tieline and completing the necessary upgrades to Ontario's transmission system would be a major infrastructure project that would require up to 10 years to develop, and cost over \$1 billion. These potential investments in transmission capability – plus the cost of the energy from Quebec - would need to be weighed against other alternatives such as domestic supply or equivalent imports from other jurisdictions to ensure they are cost competitive." In addition, historically the capacity that Hydro Quebec has sold to its neighbouring markets has been for the summer period only. In the future Ontario will have increasing winter peaking demands. Quebec's capacity may not be available during the winter months.

Prematurely replacing the capacity supplied by these assets would require an enormous expenditure by ratepayers, taxpayers or both, at a time when there are many competing financial priorities to address.

As we stated earlier, APPrO supports the objective of net-zero emissions across the country by 2050 and the City's objectives to achieve this in part by transforming the city's buildings, transportation options, and other measures.

Nevertheless, in order to maintain broad support, this transition must be grounded in facts, technical feasibility and value-for-money.

This Motion fails to consider a comprehensive view of supply-demand going forward that has been thoroughly tested to identify emerging supply gaps, realistic demand

⁴ Overview of Hydro-Québec's Energy Resources; November 2019

⁵ Ontario-Quebec Interconnection Capability – A Technical Review, May 2017

projections, technologies best able to meet our needs, rigorous cost-benefit analysis and the need for system reliability and flexibility.

APPrO therefore recommends that the City further consult with the IESO. It may still wish to go ahead with this Motion, but it would be one based on facts.

Sincerely,

A handwritten signature in black ink, consisting of a large, loopy initial 'D' followed by a series of connected loops and a final horizontal stroke.

David Butters
President & CEO