

Ontario needs a long-term energy plan that will take us to Net Zero



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Ontario is facing an energy dilemma. Several analyses confirm that the province has significantly underestimated the need for new low-carbon electricity generation stemming from: electrification of Ontario's economy to displace fossil fuel use in industry, transportation, electricity generation, and buildings; the loss of 3,000 MW of low-carbon electricity from the Pickering Nuclear Generating Station scheduled for the mid 2020s; and a population projected to increase by more than a third in the next 24 years. The Green Ribbon Panel forecasts that Ontario's electricity demand could triple before 2050.

The province's planning and procurement processes need to be reengineered to provide transparency and to integrate Ontario's climate, economic and societal planning goals. The current focus is clearly on the short-term and is dependent on building more natural gas generation and backstopping more intermittent renewables. Multiple independent analyses recommend that to get to Net Zero carbon emissions, Ontario must take a longer-term focus that builds on the province's successful "made-in-Ontario", low-carbon, low-cost, baseload nuclear generation.

Today, natural gas produces almost ten percent of Ontario's electricity and it's on the rise. Some natural gas generation will be needed until new low-carbon supply can be built, but to achieve Net Zero, all of that supply will have to be phased out and replaced by low-carbon sources. Even though federal legislation prohibits the operation of natural gas generation beyond 2035, the Ontario government recently directed the IESO to procure another 1,500 MW of new natural gas generation utilising contracts stretching out to 2040. More natural gas generation means higher greenhouse gas emissions and the eradication of reductions achieved by closing Ontario's coal stations. It also means greater exposure to price and supply volatility in North American natural gas markets. In October, the U.S. Energy Information Agency predicted natural gas home heating costs will rise 27% this winter.

There's a lot at stake, as global leaders are equating long-term, low-carbon energy security with economic competitiveness.

For more than sixty years, Ontario has made safe, reliable, and affordable nuclear power the foundation for driving economic growth and ensuring long-term energy security. This low-carbon nuclear workhorse currently provides approximately 60 percent of Ontario's electricity. Bruce Power and Ontario Power Generation (OPG) are investing to extend the operating lives of the 6,500 MW Bruce and 3,500 MW Darlington nuclear generating stations, creating even more high-quality jobs and GDP stimuli for decades to come. In addition, OPG's new 300 MW small modular reactor (SMR), at the Darlington site, scheduled for 2028, and SMR activity in other provinces will provide even more jobs and economic stimulus.

Canada's home-grown nuclear technology provides significant environmental and healthcare benefits. Each year nuclear power generation helps Canada avoid 80 million tonnes of carbon emissions – equivalent to taking 15 million cars off our highways. The safe restart of laid-up reactors at Bruce Power enabled Ontario's coal station closures which dramatically reduced the province's carbon emissions while improving our air quality. Ontario's nuclear fleet also produces and distributes an increasing variety of life-saving medical isotopes to a global market forecasted to reach \$17 Billion (U.S.) by 2023.

The industry's success has been underpinned by Canada's robust and internationally admired regulatory and monitoring

oversight, top quality reactor designs, and a highly trained workforce. Waste management is highly regulated, monitored and funded. According to NRCAN, Canada's nuclear industry generates annual revenues of over \$6 Billion. There are more than 200 nuclear industry supply chain companies across Canada and approximately 76,000 direct and indirect jobs are supported by this Ontario-centric industry.

Ontario urgently needs an integrated climate, economic and societal plan that maximizes domestic prosperity and gets us to Net Zero on time. Planning should be practical and build on our proven strengths and expertise to maximise environmental and economic benefits. New, large-scale, nuclear generation has to be the centrepiece.

The Time to Secure Ontario's Economic Future..... Is Now

Ontario's economic success requires a practical plan to transition to low-carbon energy sources

- Global leaders are equating long-term, low-carbon energy security with economic competitiveness
- Ontario's carbon emissions from electricity generation are about to rise dramatically with construction of new gas plants
- Ontario's Green Ribbon Panel Report forecasts that electricity demand could triple before 2050
- The harsh reality - it takes time to plan, approve, and construct new low-carbon electricity generation on the scale needed

Ontario needs a long-term electricity plan that integrates our carbon reduction, economic and societal goals to achieve a Net Zero energy future

FROM THE PEOPLE WHO HELP KEEP THE LIGHTS ON.

