

Investing in Ontario's Nuclear Fleet Means Lower Costs and GHG Emissions, More Jobs and Better Energy Security



By MEL HYATT
President
Power Workers' Union

On August 8th, Montreal's *La Presse* newspaper, reported that Hydro-Québec and Ontario were finalizing a historic 20-year power exchange agreement. Ontario's Ministry of Energy subsequently issued a statement describing the report as inaccurate and incompatible with Ontario's core objectives.

Ontario's Energy Minister requires that future agreements with Quebec meet 3 principles. Any proposal must be cost effective and cost less than other supply options. It must include firm capacity that meets Ontario's resource requirements. Finally, it must validate the provinces' shared goal of reducing greenhouse gas (GHG) emissions, particularly from domestic natural gas generation.

Under the 2017 Quebec offer, an expansion of last fall's 7-year energy exchange agreement, Hydro-Québec would sell 8 terawatt hours (TWh) per year to Ontario's Independent Electricity System Operator (IESO) for 20 years. This is 4 times more electricity annually than Quebec provides to Ontario today, representing about 6% of our province's electricity consumption.

The 2016 deal provides 500 megawatts (MW) of surplus power annually at a fixed, above market price (average export price of 4.8 cents/kilowatt-hour (kWh)) when available from Quebec. The deal states that these imports are to reduce Ontario's GHG emissions and reliance on natural gas generation. GHG reductions from the exchange are estimated to be relatively small at about a million tonnes a year. That's because today, Ontario rarely uses its existing natural gas generation and much of it is under long-term contracts. As Quebec's generation is limited in winter, Ontario is committed to supply 500 MW to Quebec at those times.

This 2016 arrangement is purported to save Ontario ratepayers \$70 million over the 7-year agreement. In the winter, Quebec will effectively store the 500 MW and sell it back to Ontario in summer instead of Ontarians paying U.S. states to accept our province's electricity surplus.

Under the latest offer, Ontario would pay the Quebec Crown Corporation significantly more - 6.12 cents per kWh plus an annual increase of 2% in the sale price over the 20 years. Effectively, Quebec would store more of Ontario's surplus, importing it "free of charge" and then selling it back to Ontario when needed and available.

The 8 TWh proposal would not supply secure baseload electricity, nor could it compete on price with Ontario's low-cost, GHG-free, nuclear and hydroelectric production. Ontario already has one of the lowest-cost, lowest-GHG emission electricity systems in the world.

Fortunately, Ontario has already made smart, "good-for-the-province" decisions by securing the low-cost, low-carbon nuclear baseload generation that will help reliably power the province's economy for decades to come.

In the fall of 2015, the Ontario government announced an agreement with Bruce Power to refurbish the 8-unit station. This secured 6,300 MW of low-cost, low-carbon, 24/7 electricity to the 2060s. The agreement also supports tens of thousands of good, existing Ontario jobs, while creating tens of thousands of new ones.

In December 2015, Ontario committed to the continued operation of two Ontario Power Generation (OPG) Pickering Nuclear units to the end of 2022 and four units to the end of 2024. Pickering produces 3,100 MW of safe, low-cost, low-carbon electricity. A 2017 study by Strapolec, an independent energy market analyst, concluded the extended

operations would avoid 18 million tonnes of GHG emissions, sustain 40,000 person years of employment, save electricity customers over \$600 million, and curtail spending billions of ratepayers' dollars for out-of-province energy imports.

Ontario announced the refurbishment of the 4-unit Darlington Nuclear Station in early 2016 securing 3,500 MWs of low-cost, low-carbon electricity to 2055. Station refurbishment sustains more than 2,000 operations and maintenance jobs and creates over 5,000 additional construction jobs to 2025. The 180 plus nuclear supply chain companies located in communities across the province are also major beneficiaries.

Electricity trading between Ontario and Quebec has been a long-standing practice and when well-structured, can be mutually beneficial. Going forward, Ontario's key challenge remains negotiating arrangements that best support our province's electricity consumers and economy while achieving real reductions in GHGs. Ontario's nuclear workhorse does just that.

Ontario's Nuclear Workhorse Delivers Benefits Today and Tomorrow

Extending the safe operations of the Pickering Nuclear Station to 2024 and refurbishing the Darlington and Bruce Nuclear Stations are smart, "good-for-Ontario" decisions.

Ontarians benefit in many ways:

- Abundant, affordable and reliable, low-carbon electricity 24/7 for decades to come
- Lower greenhouse gas (GHG) emissions
- Tens of thousands of existing and new jobs
- A vibrant, successful, world-leading, multi-billion dollar a year nuclear industry
- Tens of millions of dollars to fund world-leading Research and Development at Ontario colleges, universities, hospitals and laboratories
- Production of valuable isotopes crucial for medical imaging
- Energy security that is not dependent on energy imports
- Exports of low-carbon electricity and high value products and services that reduce GHG emissions beyond Ontario

Ontario's nuclear advantage is a low-carbon energy workhorse in Ontario's economy.

For more information please go to www.pwu.ca

FROM THE MEN AND WOMEN WHO HELP KEEP THE LIGHTS ON.

