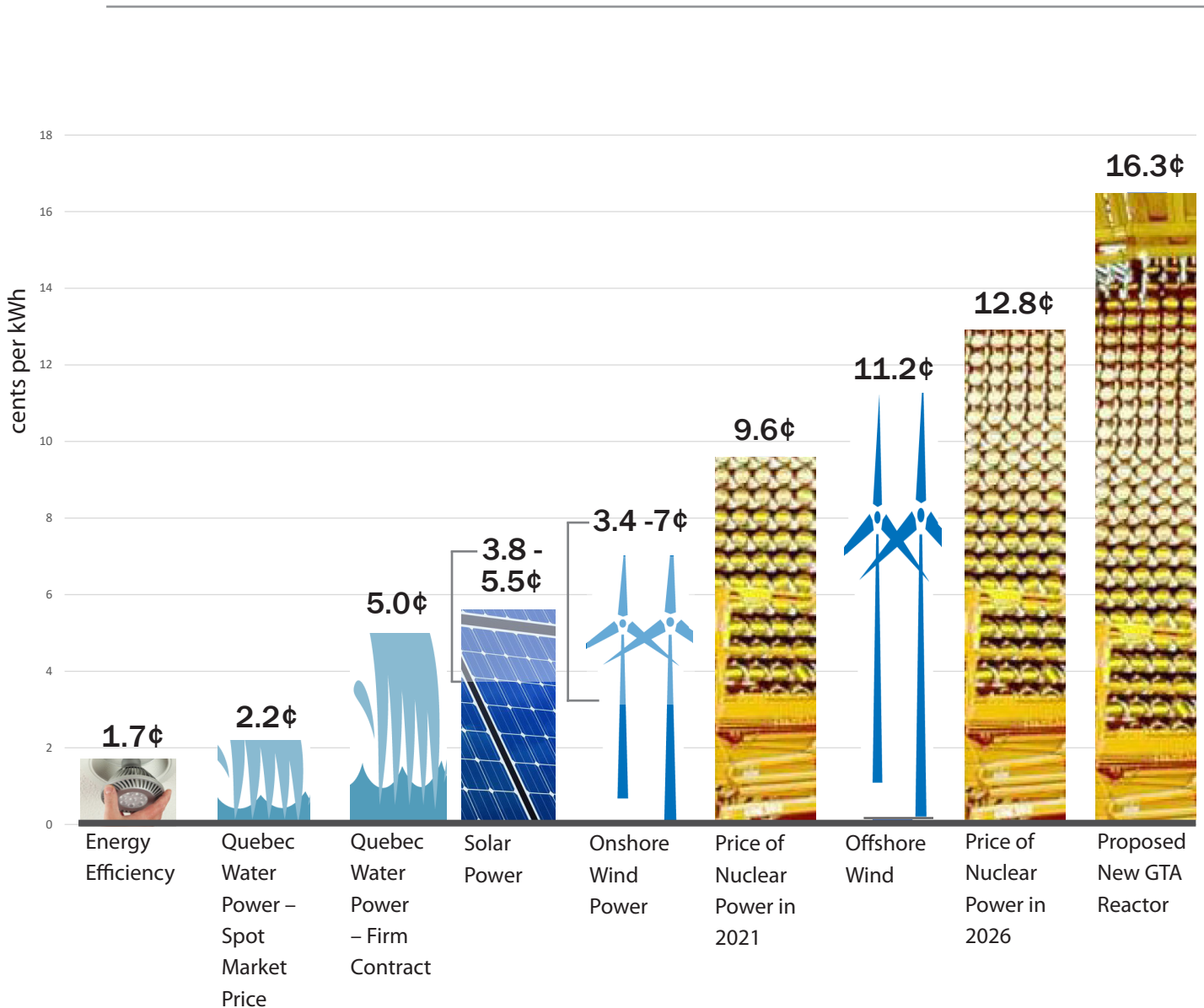


Ontario's Electricity Options: A Cost Comparison



ONTARIO
CLEAN AIR
ALLIANCE
RESEARCH

CleanAirAlliance.org

Notes

Energy efficiency: In 2017 the Independent Electricity System Operator's (IESO) average levelized unit energy cost (LUEC) of procuring a kWh of electricity savings was 1.69 cents. Independent Electricity System Operator, *2017 Report on Energy-Efficiency Activities*, page 8.

Quebec water power – spot market price: In 2017 the average price of Ontario's spot market electricity purchases from Quebec was 2.2 cents per kWh. Financial Accountability Office of Ontario, *Electricity Trade Agreement: An Assessment of the Ontario-Quebec Electricity Trade Agreement*, (Spring 2018), page 7.

Quebec water power – firm contract: On June 22, 2017 Hydro Quebec offered to sell Ontario 8 billion kWh per year, for 20 years, at a price of 6.12 cents per kWh. In August 2017 Hydro Quebec lowered its proposed price to 5 cents per kWh, but the Government of Ontario still refused to accept the offer. Letter from Steve Demers, Vice President, Hydro Quebec to Peter Gregg, CEO, Independent Electricity System Operator, (June 22, 2017); and Pierre Couture, "Hydro Quebec l'Ontario en ligne de mire", *Journal de Montreal*, (August 16, 2017).

In 2017 the average price of Hydro Quebec's short and long-term electricity exports was 4.7 cents per kWh. Hydro Quebec, *Annual Report 2017*, page 76.

Utility Scale Solar: According to Lazard, the cost of utility scale solar PV is 2.9 to 4.2 cents per kWh (US \$). We have converted these costs to Canadian dollars by multiplying them by 1.3. Lazard, *Lazard's Levelized Cost of Energy Analysis – Version 14.0* (October 2020) page 2.

Onshore Wind: According to Lazard, the cost of onshore wind is 2.6 to 5.4 cents per kWh (US \$). We have converted these costs to Canadian dollars by multiplying them by 1.3. Lazard, *Lazard's Levelized Cost of Energy Analysis – Version 14.0* (October 2020) page 2.

OPG's Price of Nuclear Power in 2021: Ontario Energy Board Docket No. EB-2020-0290, Exhibit I1, Tab 1, Schedule 2, Table 2.

Offshore Wind: According to Lazard, the cost of offshore wind is 8.6 cents per kWh (US \$). We have converted this cost to Canadian dollars by multiplying it by 1.3. Lazard, *Lazard's Levelized Cost of Energy Analysis – Version 14.0* (October 2020) page 2.

OPG's Price of Nuclear Power in 2026: Ontario Energy Board Docket No. EB-2020-0290, Exhibit I1, Tab 1, Schedule 2, Table 2.

Proposed New GTA Nuclear Reactor: Ontario Power Generation (OPG) is proposing to build a small modular reactor (SMR) near Oshawa. The Canadian nuclear industry is forecasting that the cost of electricity from a SMR will be 16.3 cents per kWh; however they note that if there is a 3% capital cost overrun the cost will rise to 21.5 cents per kWh. They are hoping that the first commercial SMR will be in-service by 2030. Canadian Small Modular Reactor Roadmap Steering Committee (2018), *A Call to Action: A Canadian Roadmap for Small Modular Reactors*, pages 35 and 54.

Thanks to the M.H. Brigham Foundation, the Echo Foundation, the Green Sanderson Family Foundation, and the Taylor Irwin Family Fund at the Toronto Foundation for their generous financial support.



CleanAirAlliance.org