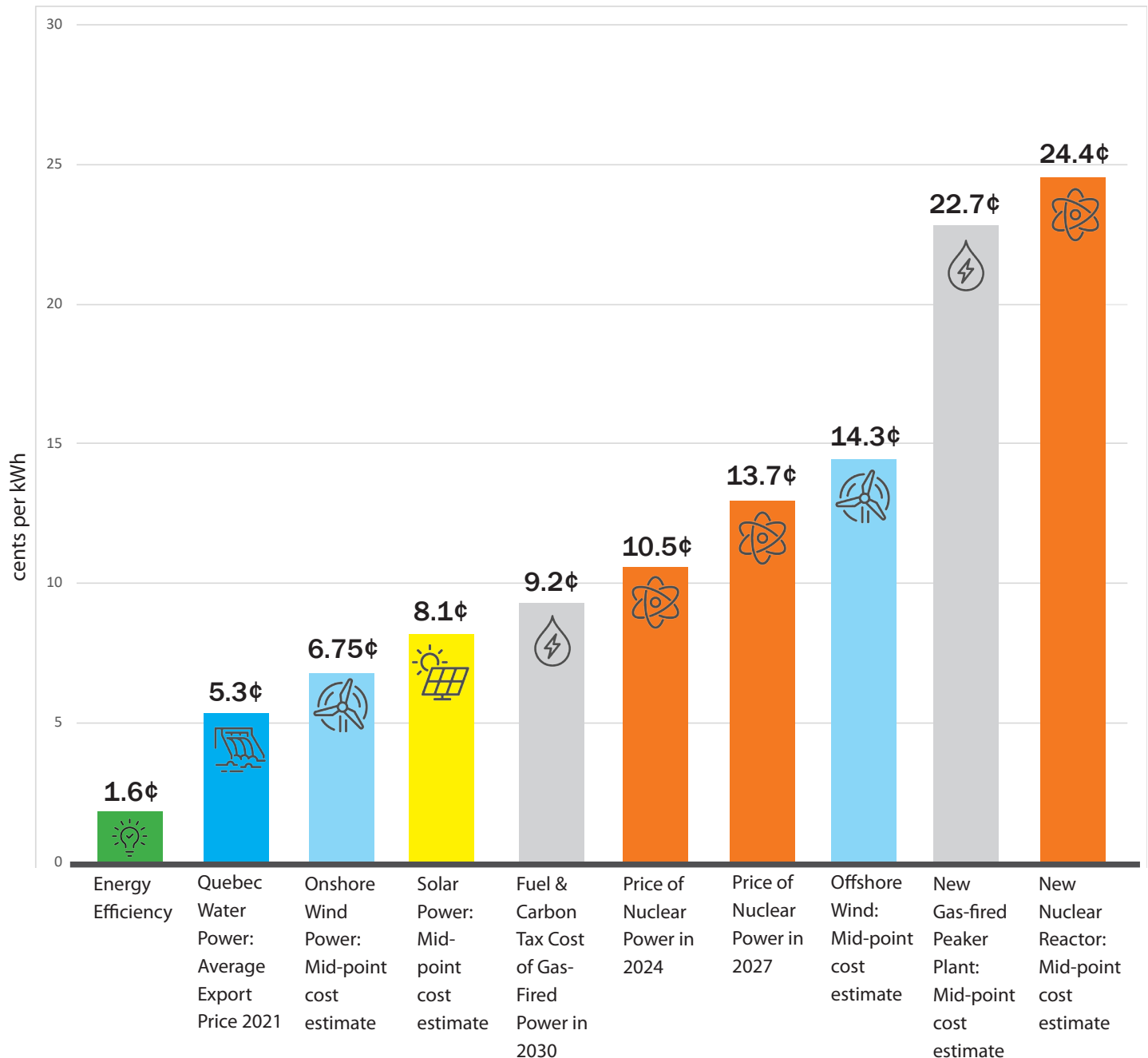


# Ontario's Electricity Options: A Cost Comparison

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## Notes

**Energy efficiency:** In 2022 the Independent Electricity System Operator's (IESO) average levelized unit energy cost (LUEC) of procuring a kWh of electricity savings was 1.6 cents. Email to Ontario Clean Air Alliance from Customer Relations, IESO, (December 7, 2023).

**Quebec water power – average export price in 2021:** Hydro Quebec, *Annual Report 2021*, page 100.

**Onshore Wind:** According to Lazard, the cost of onshore wind is 2.4 to 7.5 cents per kWh (US \$). We have converted these costs to Canadian dollars by multiplying them by 1.35. Lazard, *Lazard's Levelized Cost of Energy Analysis – Version 16.0*, (April 2023) page 2. In March 2023 Hydro Quebec accepted seven bids for wind power at an average price of 6.1 cents per kWh (2022 CDN \$). Hydro Quebec, [Press Release](#), "Hydro-Quebec accepts seven projects totalling nearly 1,150 MW of wind power," (March 15, 2023).

**Utility Scale Solar:** According to Lazard, the cost of utility-scale solar PV is 2.4 to 9.6 cents per kWh (US \$). We have converted these costs to Canadian dollars by multiplying them by 1.35. Lazard, *Lazard's Levelized Cost of Energy Analysis – Version 16.0*, (April 2023) page 2.

**OPG's Price of Nuclear Power in 2024:** Ontario Energy Board Docket No. EB-2020-0290, Ontario Energy Board, *Payment Amounts Order Ontario Power Generation Inc.*, (January 27, 2022), pages 5 & 8.

**Fuel & Carbon Tax Cost of Gas-Fired Power in 2030:** The IESO's 2022 Annual Planning Outlook is forecasting that the cost of gas at Dawn, Ontario will be \$3.76 per mmbtu (2022 CDN \$). This entails that the fuel cost of a combined-cycle gas power plant will be approximately 2.6 cents per kWh. In 2030 the federal carbon tax will be \$170 per tonne. If 100% of the gas plants' carbon pollution is subject to the carbon tax, their carbon tax will be 6.6 cents per kWh. <https://www.ieso.ca/Sector-Participants/Planning-and-Forecasting/Annual-Planning-Outlook>

**Offshore Wind:** According to Lazard, the cost of offshore wind is 7.2 to 14.0 cents per kWh (US \$). We have converted these costs to Canadian dollars by multiplying them by 1.35. Lazard, *Lazard's Levelized Cost of Energy Analysis – Version 16.0*, (April 2023) page 2.

**OPG's Price of Nuclear Power in 2027:** Ontario Energy Board Docket No. EB-2020-0290, I1-01-Environmental Defence-028.

**Gas-Fired Peaker Plant:** According to Lazard, the cost of a new gas-fired peaker plant is 11.5 to 22.1 cents per kWh (US \$). We have converted these costs to Canadian dollars by multiplying them by 1.35. Lazard, *Lazard's Levelized Cost of Energy Analysis – Version 16.0*, (April 2023) page 2.

**New Nuclear Reactor:** According to Lazard, the cost of a new nuclear reactor is 14.1 to 22.1 cents per kWh (US \$). We have converted these costs to Canadian dollars by multiplying them by 1.35. Lazard, *Lazard's Levelized Cost of Energy Analysis – Version 16.0*, (April 2023) page 2.

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