

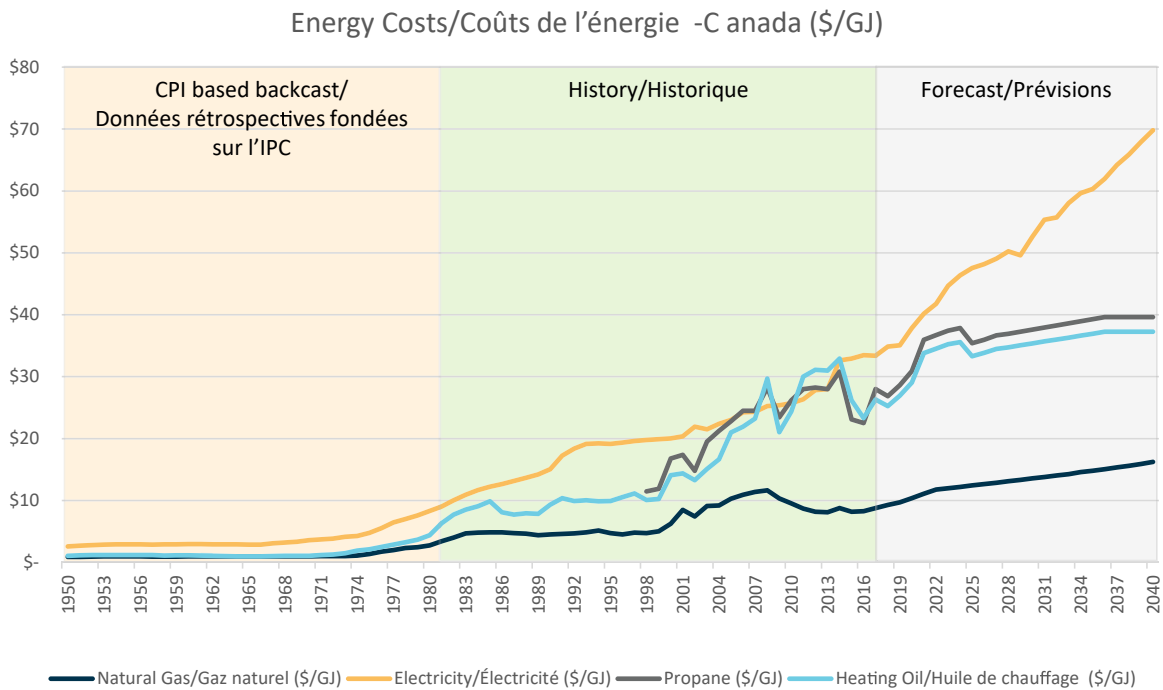


# CGA by the Numbers:

## Residential energy costs: past, present, and future

In this issue of By the Numbers we look at the long term history, current level, and future outlook for the main residential energy cost options. What we see is that natural gas is the lowest cost energy option for residential consumers and has been for many decades. The most recent energy outlook from the National Energy Board (NEB) expects that cost advantage to continue to grow in the future.

Using Statistics Canada data for energy spending, energy use, and the consumer price index for the main energy forms available to consumers, we've constructed a chart that shows the cost per unit of energy (Gigajoule - GJ) back to the year 1950. Then using the most recent NEB forecast (reference case scenario) for natural gas, electricity, and oil prices, we've projected out those costs to the year 2040.



What we see is that electricity costs have always been higher for consumers. Even at times when gas prices have been much higher than they are today, gas has been the more affordable option. Since 1980, the spread has only continued to grow, with the cost advantage becoming more and more dramatic looking out into the next few decades. Currently it is three times more affordable to use natural gas energy than electricity-based energy and that cost advantage gap is expected to grow to over four times by 2040. This cost advantage means that over the 2000 to 2017 period a typical single family home using about 100 GJs of energy per year would have a cumulative savings of more than \$35,000 by using natural gas versus electricity. The comparative advantage of natural gas is real, and growing: the historical record shows it, the forecasts predict it.