

NATURAL GAS HEATING SEASON REPORT 2022–2023

FALL 2022

INTRODUCTION

Canada's natural gas system offers affordable, reliable, clean energy — a reality that is most appreciated by citizens as we approach winter and need more energy to stay warm. This report looks at Canada's natural gas market as we enter the 2022–2023 winter heating season. A summary of key indicators is provided to help readers understand where market fundamentals sit as the colder months approach, and furnaces are turned back on raising demand for natural gas.

EXECUTIVE SUMMARY

After lower demand during the first half of 2021, natural gas consumption has recovered and even exceeded pre-pandemic levels since the start of 2022. In addition, more than 87,000 new residential customers joined Canada's natural gas system in 2021 to take advantage of this affordable, reliable, clean energy choice — particularly as a winter heating option.

Natural gas production remains strong heading into the heating season. However, current natural gas storage levels are lower than would otherwise be expected — higher demand has persisted throughout the spring and summer, slowing storage refills. In addition, storage had been drawn down significantly early in the year after a cold winter and high industrial consumption.

At a national level, prices for natural gas are averaging \$5.10/GJ going into the heating season, marking a five-year high for the eighth month in a row. Nevertheless, natural gas in Canada continues to have a significant affordability advantage both globally (vis-à-vis gas prices abroad) and domestically. For Canadian consumers, natural gas remains on average the most affordable home heating option when compared with electricity, fuel oil, and propane.

Weather is a key factor affecting (particularly winter) prices for natural gas, as colder weather drives up demand, which can then drive up prices. Current probabilistic outlooks from the Government of Canada show “warmer than normal” temperatures as being more likely for most of the country this winter. This would mean lower natural gas use, lessening the pressure for prices to rise higher.

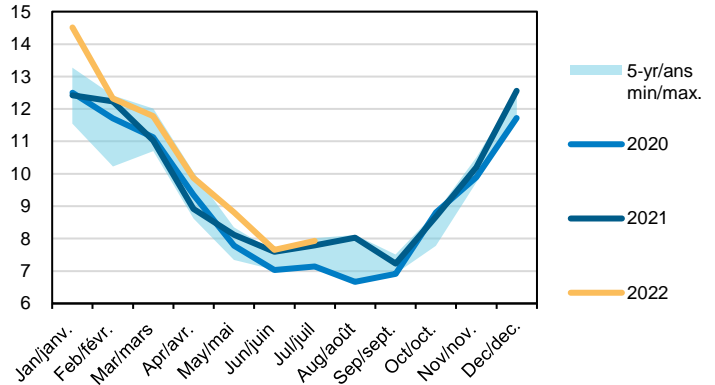
NATURAL GAS DEMAND

Gas demand has bounced back and continued to grow as more customers join the system.

Since the start of 2022, natural gas consumption rebounded from pandemic lows, nearly reaching and sometimes exceeding five-year highs. Much of the demand increase came from the industrial sector as the economy recovered amidst easing pandemic restrictions. Extreme cold was also a significant factor in the high demand earlier in the year. Cities across the country saw record cold temperatures during the 2021-2022 heating season and natural gas was there to meet that higher demand. Over 6.8 million households in Canada used natural gas as the primary heating source in the 2021-2022 season, and residential demand peaked in January of this year at a new five-year high.

More than 87,000 new residential customers joined the natural gas system over the last year,

SALE OF NATURAL GAS - CANADA | VENTE DE GAZ NATUREL - CANADA (BILLIONS OF CUBIC METRES | MILLIARDS DE MÈTRES CUBES)



Source: Statistics Canada Table: 25-10-0055-01 | Source : Statistique Canada 25-10-0055-01

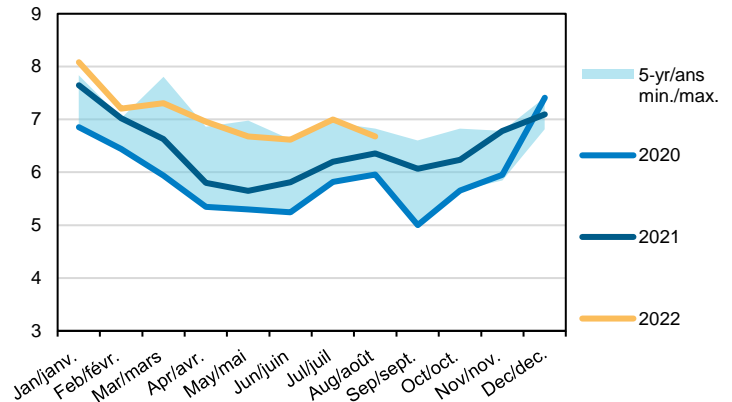
in preparation for the 2022-2023 winter heating season. This brings the total active natural gas customer base of CGA member companies to nearly 7.5 million end-use locations.

NATURAL GAS EXPORTS

Gas exports remain high as international demand – driven by economic growth and security concerns – grows.

In parallel with domestic demand growth, international demand has risen – as evidenced by higher pipeline exports of natural gas into the United States. After exceeding the five-year high in January 2022, exports have remained close to that level thus far through the year. As with the Canadian situation, a return to economic growth (in the US and abroad) and severe cold (in the US) have been factors contributing to greater export demand. Global energy security concerns – driven largely by Russia’s invasion of Ukraine – have also triggered export demand growth. Canadian supply – unable

EXPORTS OF NATURAL GAS / EXPORTATIONS DE GAZ NATUREL - CANADA (BILLIONS OF CUBIC METRES | MILLIARDS MÈTRES CUBES)



Source: CER

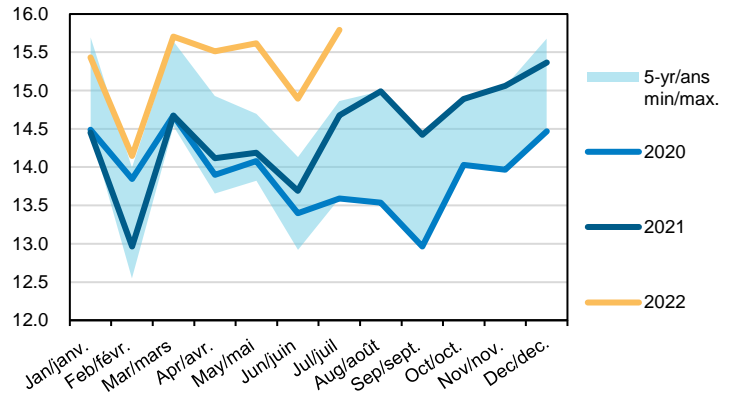
to meet global markets directly – is contributing to them indirectly through exports into the US.

NATURAL GAS PRODUCTION

Canada’s natural gas production reaches record levels.

After declining in the first half of 2021, natural gas production levels have bounced back, even exceeding pre-pandemic levels. The increase in production comes at a much needed time, when demand domestically and abroad is rising. Since March 2022, Canada has seen the highest daily production levels in 20 years. Supply is abundant going into the 2022-2023 heating season, which will help put some downward pressure on prices.

NATURAL GAS PRODUCTION / PRODUCTION DE GAZ NATUREL - CANADA (BILLIONS CUBIC METRES / EN MILLIARDS MÈTRES CUBES) 2020-2022



Source: Statistics Canada Table: 25-10-0055-01 | Source : Statistique Canada 25-10-0055-01

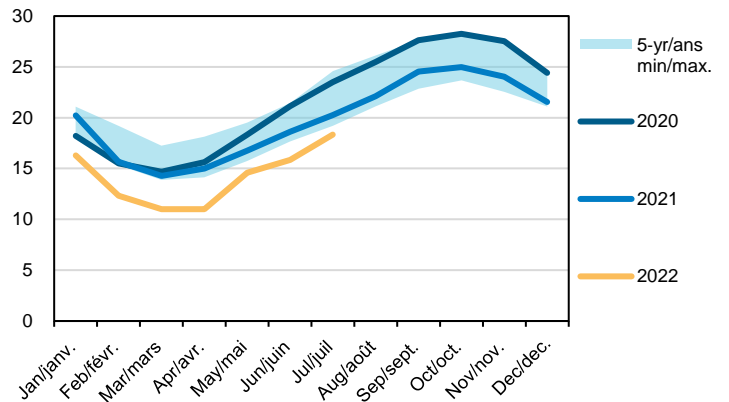
NATURAL GAS STORAGE

Natural gas storage levels reach five-year lows.

After a harsh winter and high industrial demand, natural gas inventories reached their lowest levels in the last five years by the end of March 2022. This meant a lower starting point for refilling inventories in the spring.

Recently, natural gas storage facilities have been refilling at a higher rate than in previous years. While the higher production rates have helped rebuild inventories, sustained high exports and high industrial demand throughout the spring and summer mean that inventory levels have grown more slowly than usual. If production rates remain as high as they are now, inventories are expected to grow steadily but may remain at the lower end of the five-year average heading into the 2022-2023 heating season. Lower inventories could mean that there is upward pressure on prices in the case of a cold winter or other adverse events.

NATURAL GAS STORAGE / STOCKS DE GAZ NATUREL - CANADA (BILLIONS CUBIC METRES / MILLIARDS MÈTRES CUBES)



Source: Statistics Canada Table: 25-10-0057-01 | Source : Statistique Canada 25-10-0057-01

NATURAL GAS PRICES

Natural gas is still Canada's most affordable energy.

Prices were averaging \$5.10/GJ through September this year, up from an average of \$2.12 during the same period last year. Since February 2022, commodity prices have reached five-year highs for every month of this year. Since peaking at \$6.86/GJ in June 2022, prices have dropped in recent months, falling to \$4.29/GJ in September 2022.

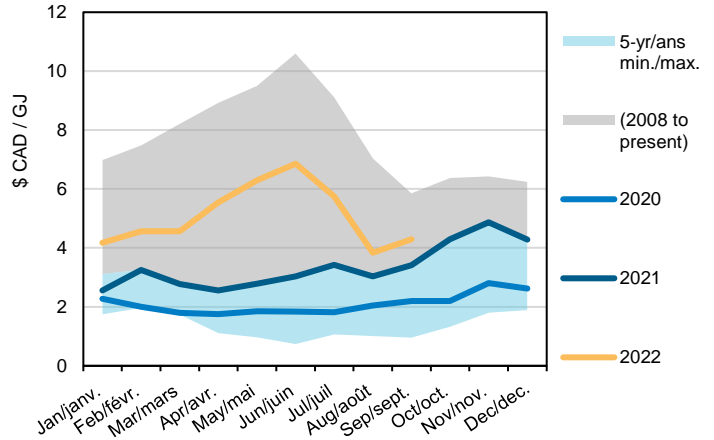
While this year's higher prices are concerning for consumers, especially after several years of very low prices, a longer-term view demonstrates that natural gas remains well below the averages of the last few decades. North America's abundant supply and readily available recoverable resources continue to ensure that the affordability advantage of gas remains.

Compared with global averages, Canadian prices remain among the lowest in the world. The energy crisis in Europe has caused gas prices to soar over the last year. In September 2022, the spot prices in Europe were more than 17 times higher than the price of gas in Alberta, and while prices are trending down on global markets, they remain much higher than in Canada.

North America maintains a series of significant advantages that keep natural gas the most affordable energy option, including abundant local supply, significant storage, and robust and integrated markets. This is particularly true in Canada. Compared to US Gulf Coast markets, prices in Alberta have been on average \$2.50 USD/mmBtu cheaper in 2022.

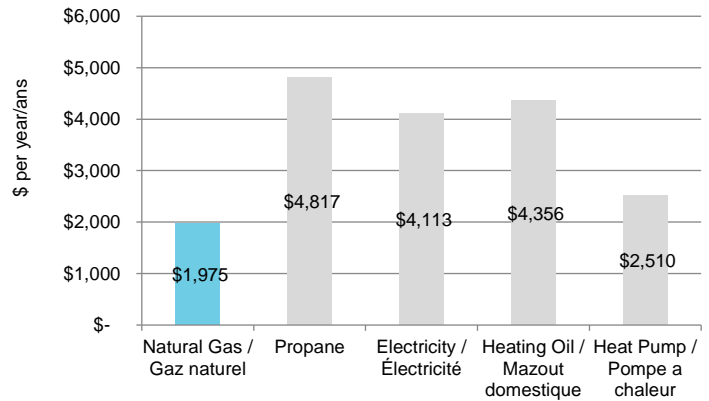
Even accounting for the higher 2022 prices, natural gas continues to be the most affordable energy option in Canada. Compared to the other major heating fuels, natural gas customers can save significantly on their energy bills. The average residential heating costs using natural gas

**NATURAL GAS PRICE / PRIX DU GAZ NATUREL
ALBERTA MARKET PRICE**



Source: NGX

**RESIDENTIAL SPACE & WATER HEATING COSTS |
LOCAUX RÉSIDENTIELS ET COÛTS DU CHAUFFAGE DE
L'EAU - CANADA - 2021**



Source: StatsCan, Kent Marketing, Canadian Gas Association

are consistently lower than other heating options in virtually every market across the country.

The affordability advantage of gas will only be compounded as innovation continues to develop new technology options like natural gas-powered heat pumps and combined heat and power systems. While natural gas customers are seeing the burden of more and more carbon tax and related regulatory costs on their bills, the fundamental value proposition of Canada's most affordable and reliable energy choice remains strong.

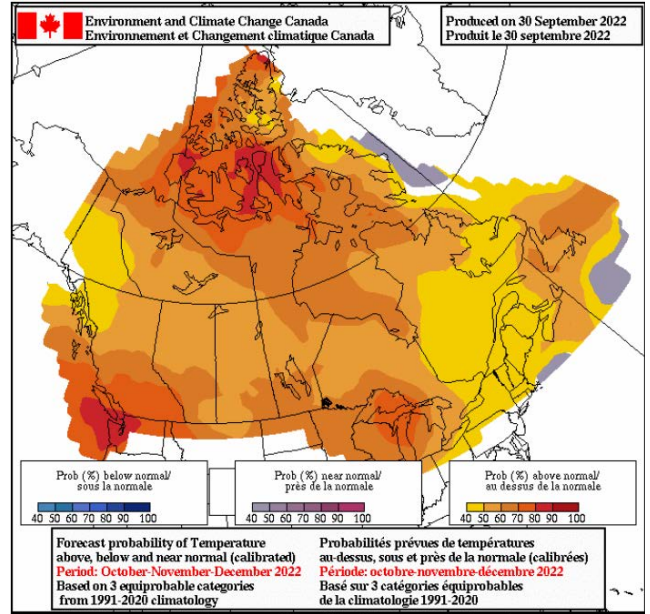
WINTER WEATHER

Forecast shows “warmer than normal” winter likely for most of the country.

Environment and Climate Change Canada’s outlook, as of October 2022, predicts a high probability for “above normal” temperatures this coming winter heating season (October to March) for most of the country, except for the west coast.

Generally speaking, colder and snowier winter weather would lead to more energy use by homes and businesses.

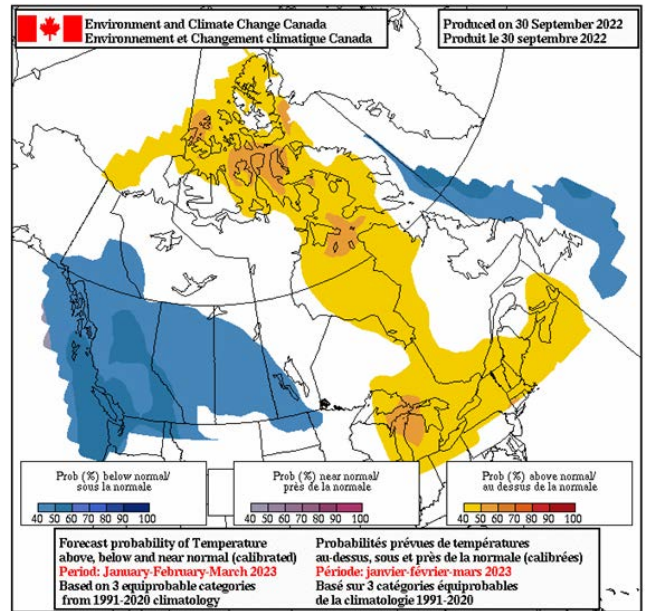
The implication of warmer weather is that supply and pricing are less likely to face upward pressures despite lower than typical inventories coming into this winter season.



SUMMARY

While the crisis in Europe and higher costs around the world contribute to global energy security concerns, Canada and Canadian natural gas consumers remain well-positioned heading into the 2022-2023 winter heating season.

Production and demand are higher than average, and current storage levels are lower than average, but the fundamentals of the Canadian gas market mean consumers can continue to expect an affordability advantage in natural gas over other energy options.



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