INTRODUCTION

Canada’s natural gas system offers affordable, reliable, clean energy. This report looks at the main indicators for Canada’s natural gas market as we enter the 2021–22 winter heating season. A summary of these key indicators is provided to help readers understand where market fundamentals sit as the colder months approach, furnaces are turned back on, and demand for natural gas peaks.

EXECUTIVE SUMMARY

After lower demand due to the global pandemic and lockdowns, natural gas consumption is rebounding quickly as the Canadian economy recovers. In addition, nearly 60,000 new customers joined Canada’s natural gas system in 2020 to take advantage of this affordable, reliable, clean energy choice — particularly as a winter heating option.

Natural gas supplies, also affected by the pandemic, have now recovered, and remain strong heading into the heating season. However, current natural gas storage levels are lower than would otherwise be expected as demand growth outpaced production growth over the summer months — slowing storage refills. Storage had been drawn down significantly early in the year to meet high demands in Texas due to its severe winter storm in February.

At a national level, prices for natural gas are averaging $3.14/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 for consumers, compared with electricity and other heating options.

Weather is a key factor affecting (particularly winter) prices for natural gas, as colder weather drives up demand, which can then drive up price. Current probabilistic outlooks from Environment and Climate Change Canada show “warmer than normal” temperatures as being more likely for most of the country this winter which, if it is the case, will mean lower natural gas use, lessening the pressure for prices to rise higher.
NATURAL GAS DEMAND

Gas demand recovers while residential customers continue to join the natural gas system.

Many months in 2020 — when the pandemic and lockdowns were at their most dramatic — saw natural gas consumption hit lows well below the five-year average (see chart to the right). Most of the reduction in demand came from the industrial and commercial sectors as the economy slowed dramatically. Demand in the residential sector remained relatively unchanged. Natural gas consumption began to recover to 2019 levels starting in mid-2021 as the economy began to pick up again.

Over 60,000 new residential customers joined the natural gas system this past year, in preparation for the 2021–22 winter heating season. This brings the total active natural gas customer base of CGA member companies to just over 7.4 million end-use locations.

Over 6.7 million of those locations are households in Canada that use natural gas as their primary heating source. That is more than those using electricity, heating oil, or propane.

NATURAL GAS PRODUCTION

Canada’s natural gas production levels are recovering.

Similar to the trends seen on the demand side, Canadian natural gas production reached five-year lows in 2020 as a result of the pandemic and lockdowns (see chart to the right). Production has bounced back, exceeding pre-pandemic levels as of June 2021. As a result, supply is abundant going into the 2021–22 heating season, although production level recovery has lagged slightly behind the demand recovery.
NATURAL GAS STORAGE

Natural gas storage levels are towards the lower end of five year averages.

In February 2021, natural gas inventory levels dropped significantly as Canadian exports surged to assist Texas customers needing natural gas in the face of extreme winter storms. This meant a lower starting point for refilling inventories in the Spring. Since then, natural gas storage facilities have been refilling, but at a lower than expected rate as demand recovery was faster than expected and has outpaced production recovery (as noted above). As production continues to recover, inventories are expected to improve, but may remain toward the lower end of five-year averages as we enter the 2021–22 heating season. Lower inventories could mean that there is upward pressure on prices in the case of a cold winter or other adverse event.

NATURAL GAS PRICES

Natural gas is Canada’s most affordable energy.

Prices were averaging $3.14/GJ through September this year, up from an average of $1.95 during the same period last year. Since February 2021, commodity prices have reached five-year highs for every month. However, higher domestic pricing pales in comparison to many international markets. For example, prices in Europe have increased by nearly 500% in the past year. Low inventories, reduced production, colder weather, and high demand for LNG in Europe have all been contributing factors. Rising North American prices are to some degree a consequence of more integrated global natural gas markets, as demand has risen for LNG exports from North America to meet European and other market needs. However, North America maintains a series of significant advantages that keep natural gas the most affordable energy option, including abundant local supply, significant storage, robust and integrated markets and extensive infrastructure. Canada is particularly well positioned by all these measures.
Natural gas continues to be the most affordable energy option in Canada. Compared to the other major heating fuels, natural gas customers can save as much as $3,500 per year on their energy bills. Even accounting for the recent increase in natural gas prices, a residential heating bill using natural gas would cost less than $1,200 per year, which remains by a large margin the most affordable heating option.

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 2021, 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

The Canadian market is well placed for the 2020–21 winter heating season. Though prices have increased recently, supply is abundant, and the current prediction is for a low probability of “below normal” temperatures across most of the country.

Current storage levels are at the low end of five-year averages at this time of the year which may put some upward pressure on prices.

In terms of end-use market dynamics, more residential customers continue to join the system. Domestic sales of natural gas have recovered quickly from pre-pandemic levels. Production levels — though not rebounding as quickly as demand, have also recovered to pre-pandemic levels, ensuring Canada will have abundant supply to meet winter needs.