

# Natural Gas Annual Review 2018

# INTRODUCTION

This is CGA's Annual Natural Gas Review: a snapshot of our industry produced once a year for broad distribution. It shows continued growth in supply and demand, all while the product remains affordable and its environmental footprint continues to decline. Affordable and clean natural gas: a Canadian advantage.

## **EXECUTIVE SUMMARY**

Canada's available natural gas resource base continues to grow with over 200 years of supply (at current rates of production). Regular natural gas supplies are increasingly being augmented with <u>renewable natural gas (RNG)</u>, a 100 per cent renewable energy source, produced from organic waste from farms, forests, landfills, and water treatment plants.

Storage continues to play a key role in ensuring a reliable supply of natural gas year round. This in turn contributes to the status of natural gas as the most affordable energy option for Canadian homes and businesses.

Natural gas use also continued to grow in Canada this past year. Overall, domestic sales rose to just over 94.5 million cubic metres - 3.33 billion cubic feet (bcf) - and 90,000 new customer locations were added to the natural gas grid taking the product to over 7 million locations across the country.

Natural gas continues to have a wide price and/or emissions advantage over oil, electricity, and propane. These benefits are being passed along to consumers, and help explain why natural gas is the most sought after energy option in the country.







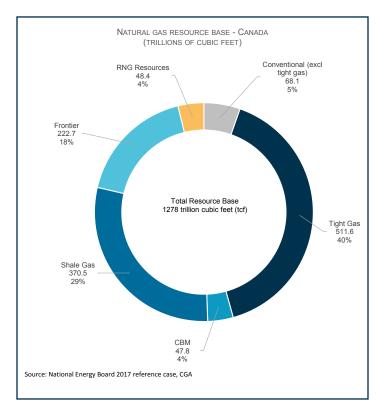
# **NATURAL GAS RESOURCE BASE**

Canada's natural gas resource base continues to provide over 200 years of supply coverage.

Canada's natural gas supply picture remains very robust with increasing amounts of RNG and geologic natural gas being added to the resource base. RNG's resource potential is estimated to be close to 48 tcf or four per cent of the total resource base. Major shale gas resources continue to bolster the supply picture with almost all of the new gas supply being in this form.

Shale development is particularly strong in the United States. Gas from shale has moved the U.S. into the position of now being a major exporter, both by pipeline to Canada and Mexico, and by tanker as liquefied natural gas (LNG) to overseas markets.

This strong supply picture has helped underpin strong growth in natural gas use in Canada. Domestic sales of natural gas topped just over 3.3 bcf in 2017 (over 94.5 million cubic metres) up from 2.6 bcf in 2010. Almost 90,000 new customer locations were added to the natural gas grid in 2017 bringing the total number of active natural gas service locations to just over 7 million across the country.



### NATURAL GAS STORAGE

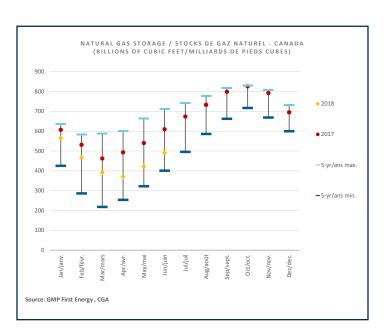
Natural gas storage levels have been key to supply stability and energy affordability.

Canada's gas storage, pushed up to record highs by strong production levels over 2017, have declined over the past six months.

Though growth in the natural gas production base continues, natural gas storage levels are now closer to the lower end of their usual range for this time of the year.

As energy markets move through the rest of the summer season, storage operators will be looking to refill their facilities. This will add to natural gas demand over the coming months.

Overall, natural gas storage capacity in Canada in 2017 was the energy equivalent of over 40 per cent of the electricity generated in Canada last year.







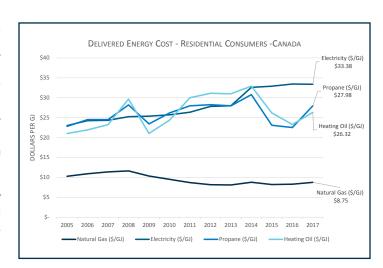


# **NATURAL GAS PRICES**

## Natural gas is Canada's most affordable energy.

Natural gas continues to be the most affordable energy option in Canada by a wide margin. A growing resource base, which includes RNG, and a highly efficient delivery system continue to drive down natural gas commodity prices maintaining a wide affordability advantage for all natural gas end users. Conversely, most other energy commodities have seen their prices increase.

Expectations are that natural gas' price advantage will continue to grow. As a result more homes and businesses will be benefitting from this energy choice.

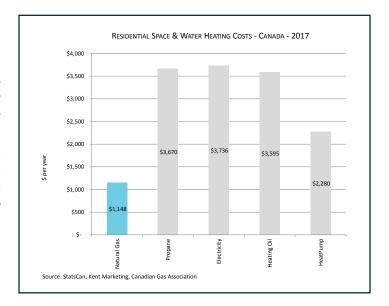


## RESIDENTIAL HEATING COSTS

#### Natural gas' cost advantage is a boost to families.

The average residential natural gas customer saved between \$1,000 and \$2,400 on their energy bill last year compared to other energy options. This affordability advantage has been growing over the last decade providing significant savings for families in Canada who have seen their other energy costs rise.

Space and water heating options for natural gas consumers have also increased. Innovations such as natural gas based heat pumps, compact furnaces, and combined heat and power systems are becoming more available and affordable.









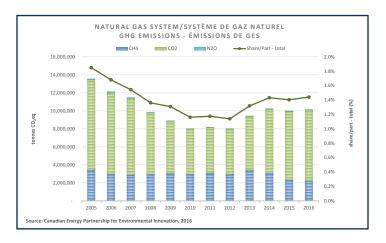
# **NATURAL GAS' EMISSIONS PROFILE**

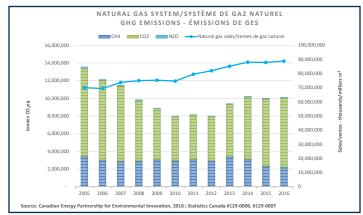
# Canada's natural gas capabilities are an emissions advantage.

Canada reported 704 MT CO<sub>2</sub>eq of GHG emissions in 2016, accounting for 1.6 per cent of the global total. Canada's natural gas delivery system accounts for less than 1.5 per cent of that Canadian total.

Natural gas is increasingly being used as a cleaner energy option for home heating, power generation, and in place of traditional, higher emitting transportation fuels in trucking, transit, and marine applications.

For the third year in a row the emissions profile of the natural gas system has remained level, even as the system is moving an increasing amount of natural gas to Canadian homes and businesses. About 34 per cent of the lifecycle emissions of natural gas come from the combined emissions from natural gas' upstream production, its transmission, storage and distribution to a point of end use.





## CONCLUSION

Clean, affordable energy services from natural gas have proven to be the most reliable way to keep energy costs down for consumers. This has led more and more new consumers to join the natural gas system in Canada.

Both the resource base and the resulting supply of natural gas remain very strong and, increasingly, RNG from waste streams is being brought into the supply stream.

For customers, new, highly efficient end use technologies are available and adding to the benefits that consumers desire when they choose natural gas.

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