



## CGA by the Numbers: The battery no one talks about: Natural gas storage in Canada

In this issue, we provide an illustrative explanation of natural gas storage in Canada.

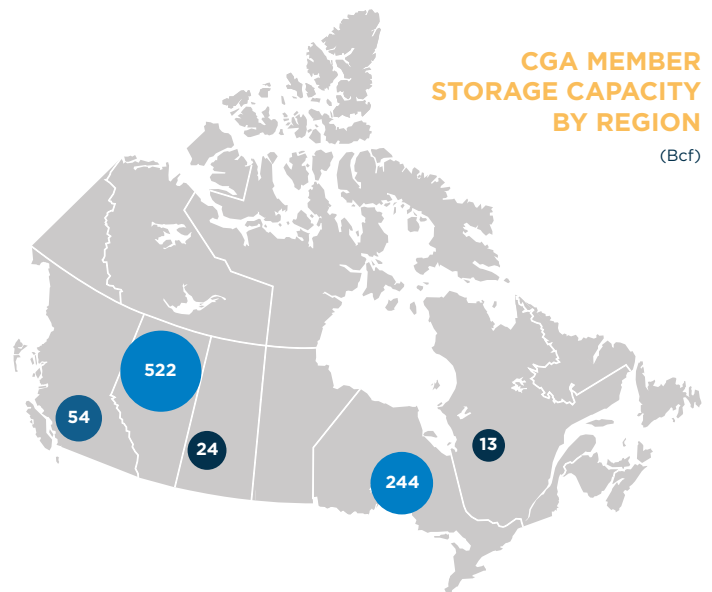
The Canadian natural gas system has the capacity to store more than 850 billion cubic feet (bcf) of natural gas. Natural gas storage capability in Canada is concentrated in Alberta, our largest producing region, and in Ontario, our primary consuming region. However, storage facilities also exist in Saskatchewan, British Columbia and Quebec.

Over the course of the winter heating season, stored natural gas is used to meet peaks in demand, helping ensure reliable energy services to all customers. Canada's current natural gas storage capacity is equivalent to the annual energy needs of around 11 million residential homes in Canada. This storage capacity is equal to just over 263 billion kilowatt hours (KWh) of energy,<sup>1</sup> the energy that could be stored by 19.4 billion Tesla Powerwall home electricity storage systems.<sup>2</sup> Every home with a gas furnace in Canada would need more than 2,500 Powerwalls<sup>3</sup> to have the same kind of energy back-up.

This ability to easily store natural gas for use whenever it is needed is one of its key benefits compared to other energy forms such as wind power, solar power, nuclear power, coal, and most forms of grid electricity.

These facilities are “filled” over the lower-priced summer months. When winter arrives, they can be used to respond to increases in demand due to weather or other events. In a typical year, storage facilities reach their maximum level in October and are drawn down to their lowest level by March.

Natural gas storage facilities can be geological, often old depleted wells, salt caverns or old aquifers. Natural gas can also be stored above ground as liquefied natural gas (LNG) in large cryogenic facilities. The Canadian natural gas system has, and makes use of, all of these forms of storage and has derived significant economic and environmental benefits from their provision of year-round access to clean, affordable natural gas.



<sup>1</sup>Based on an average HHV of 0.0385 GJ/m<sup>3</sup>.

<sup>2</sup>Based on the useable energy capacity of 13.5 KWh for a Tesla Powerwall.

<sup>3</sup>Based on 7.2 million active natural gas customers.