



# Canadian Natural Gas: Market Fact Sheet

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Natural Gas Division  
Petroleum Resources Branch  
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Natural Resources  
Canada

Ressources naturelles  
Canada

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# Canadian Natural Gas: Market Fact Sheet<sup>1</sup>

## Resources

- Large areas of Canada are underlain by hydrocarbon-bearing sedimentary rock. Natural gas resources are located primarily in an area known geologically as the Western Canada Sedimentary Basin (WCSB). This geologic region includes most of Alberta, significant portions of British Columbia and Saskatchewan, as well as parts of Manitoba and the Northwest Territories. Natural gas resources also exist in the Yukon, the Northwest Territories, and Nunavut, as well as Ontario, New Brunswick, offshore Nova Scotia and Newfoundland and Labrador.
- There is an estimated 594 Trillion cubic feet (Tcf) of natural gas resources remaining in Canada<sup>2</sup>. This includes proved reserves (wells currently producing), an estimate of discovered resources (wells in the far north not yet on production because of a lack of pipelines) and undiscovered resources (amounts geologists estimate will be found in the future). At current production rates, these resources would last more than 90 years.

## Production

- Canada is the third largest producer of natural gas in the world behind Russia and the United States.
- Canada currently produces about 6.3 Tcf of natural gas every year.
- Canadian natural gas produced from the WCSB accounts for almost 98 per cent of the total natural gas produced in Canada and contributes nearly 25 per cent of total Canada-United States natural gas production.
- Alberta, British Columbia and Saskatchewan contribute roughly 80, 16 and 4 per cent, respectively, to the production from the WCSB, while natural gas from offshore Nova Scotia provides most of the remaining production. Smaller amounts of natural

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<sup>1</sup>For more detailed information, statistics and analysis on the Canadian natural gas market, please refer to the following report, "[Canadian Natural Gas: Review of 2004 and Outlook to 2020](#)," located on Natural Resources Canada's Web Site.

<sup>2</sup>Resource estimates are as of the latest estimates generated by the National Energy Board (NEB) and the Alberta Energy and Utilities Board (EUB). Resource estimates are from the NEB's "*Canada's Conventional Natural Gas Resources*" (April 2004), the NEB's "*Canada's Energy Future: Scenarios for Supply and Demand to 2025*" [Techno-Vert Case] (July 2003), and the NEB/AEUB report "*Alberta's Ultimate Potential for Conventional Natural Gas*" (March 2005).

gas are also produced in Ontario, southern Yukon, New Brunswick, and the Northwest Territories.

## **Transportation**

- Canada operates within an integrated North American natural gas market, where natural gas can be bought from many supply sources and delivered to many markets through an extensive North American pipeline grid.
- The Canadian natural gas market is served by a network of approximately 80,000 kilometres of high-pressure steel transmission pipelines that carry natural gas from producing regions to domestic consuming regions (from Vancouver Island to Quebec City) and with major export points across Canada for delivery to markets in the United States (from California to New England).
- The largest Canadian transmission system is operated by TransCanada PipeLines Limited (TransCanada). TransCanada, which wholly-owns nearly 40,000 km of transmission pipeline in Canada (Alberta System, Canadian Mainline, Foothills System, and the B.C. System) connects natural gas supplies produced in the WCSB to large downstream markets in Ontario, Quebec and the United States.
- Canada's Maritimes natural gas market is served by the Maritimes & Northeast Pipeline (MNP), which commenced operation in late 1999. MNP, the region's only pipeline, serves markets throughout Nova Scotia, New Brunswick and the US northeast.
- Other major natural gas pipeline systems in Canada (from west to east) include: Duke Energy Gas Transmission (formerly Westcoast), Pacific Northern Gas, Terasen Gas, Alliance Pipeline, TransGas, TransQuebec and Maritimes Pipeline, GazMétro, and Union Gas.

## **Storage**

- The working natural gas capacity of all storage facilities in North America is estimated at over 4.5 Tcf, of which about 600 Billion Cubic Feet (Bcf) or 13 per cent, is located in Canada.
- North American storage facilities are capable of delivering about 39 Billion Cubic Feet per day (Bcf/d) of natural gas during peak demand periods. Deliverability from Canadian storage during these periods can be over 7 Bcf/d or about 18 per cent of the peak North American storage deliverability.

- The majority of natural gas storage in Canada is split between Alberta (in the west) and Ontario (in the east). Storage capacity is 340 Bcf in western Canada and 250 Bcf in eastern Canada.

### **Domestic Demand**

- Natural gas accounts for about 25 per cent of all the energy consumed in Canada and the United States.
- Canadian natural gas requirements are met virtually entirely by domestic sources, as Canada produces natural gas in excess of what is required for domestic consumption.
- Canadian natural gas demand in 2004 was nearly 3 Tcf.
- Canadian natural gas demand is dominated by the industrial sector, typically accounting for about 35 per cent of total domestic demand. Combined, the residential and commercial sectors account for 40 per cent of total Canadian natural gas demand. The power generation sector consumes about 10 per cent. The remaining 15 per cent is natural gas demand for transportation, which includes own-use natural gas consumption by producers and pipeline companies, as well as minor amounts of natural gas for vehicles.
- Natural gas is the source of heating for nearly half of all Canadian homes. There are about 6,083,000 natural gas consuming households in Canada, representing 22 per cent of total Canadian demand for natural gas.
- Canada's largest consuming markets are Ontario, Alberta, and British Columbia, which combined, typically account for more than 80 per cent of total demand.
- Natural gas use in Alberta is dominated by the industrial sector, representing more than half of Alberta's natural gas demand and more than all of British Columbia's total demand.
- In Ontario, the most populous province in Canada, natural gas demand is dominated by residential and commercial users, accounting for more than half of Ontario's total demand.

### **Exports**

- The United States consumes more natural gas than it produces, therefore natural gas imports are required to make up the difference. United States natural gas imports are currently satisfied by pipeline via Canada and by large ocean vessels

that carry liquefied natural gas (LNG) from Trinidad and Tobago and other countries.

- Canada is the number one supplier of natural gas imports to the United States, supplying roughly 85 per cent of its imports, which in turn fulfills 16 per cent of overall United States natural gas consumption.
- Canada typically exports (gross) around 3.5 Tcf of natural gas, or 55 per cent of its current production, to the United States. About 440 Bcf (or 1.2 Bcf per day) of natural gas is imported into Ontario each year from the United States. Thus, on a net basis, Canada is a large exporter of natural gas to the United States.