Item	05
Manager's Report No.	01
Council Meeting	01/01/08

TO: CITY MANAGER

2001 January 02

FROM: DIRECTOR FINANCE

SUBJECT: THE CANADIAN NATURAL GAS MARKET

Purpose: To provide Council with information related to the current increase in natural gas prices.

REPORT

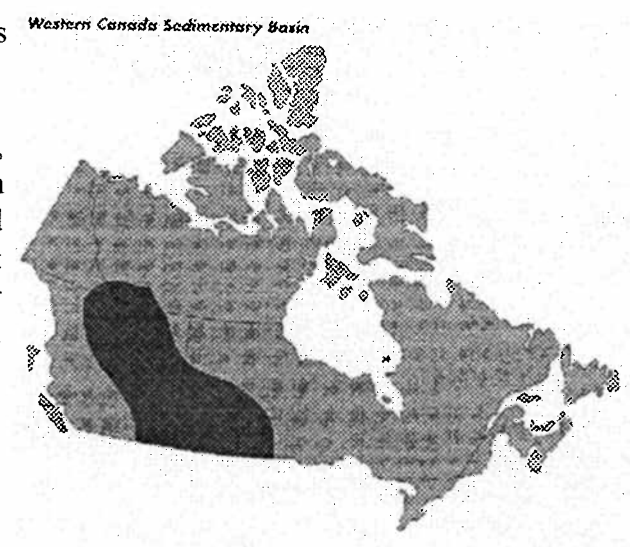
At its meeting on 18 December 2000, Council discussed the current crisis in natural gas price increases and requested the information provided in this report.

Natural Gas Production

Strong economic growth in North America over the past decade has lead to increased demand for energy. The fastest growing sector of energy demand is the use of electricity, the generation of which is increasingly from natural gas fired power plants due to their relatively lower capital cost and lower environmental impact.

Natural gas accounts for 29% of Canada's energy consumption (24% in the U.S.).

Natural gas in Canada comes, primarily, from the Western Canada Sedimentary Basin comprised of Alberta, Saskatchewan and parts of British Columbia, North West Territories and Manitoba (Figure 1). Other areas containing natural gas are Ontario and offshore Nova Scotia.

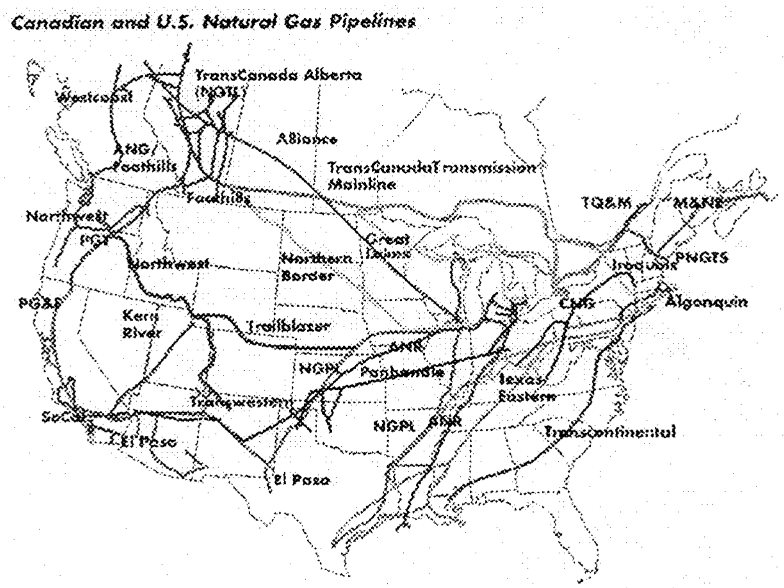


Canadian natural gas production (1999) totals 16.4 billion cubic feet per day (Bcf/d) from the following sources:

	Bcf/d	
Alberta	13.6	83%
British Columbia	2.0	12%
Saskatchewan	0.6	4%
All others	0.2	1%

Of the natural gas produced in Canada 55% is exported to the U.S. generating $11 billion in annual revenues and supplying 15% of the U.S. demand for natural gas (4% in 1985).

Canada is part of an integrated North American natural gas market with pipelines connecting supply basins with regional markets (Figure 2). Buyers purchase natural gas from a number of suppliers and have the gas delivered through numerous pipelines. Local distribution companies receive gas off the pipelines at "hubs" and deliver it to consumers within their franchise area. The local distribution companies are regulated by provincial regulatory boards or commissions or directly by a provincial government (B.C. Utilities Commission in British Columbia). It should be noted that local distribution companies are not allowed to make a profit on the commodity price of gas. British Columbia's largest local distribution company is B.C. Gas.



Prior to 1998 Canadian pipelines were operating at near capacity and excess gas supply conditions existed in western Canada, creating intense gas competition. Consequently, prices were kept low as determined by local market conditions. In the fall of 1998, additional pipeline capacity from the Western Canada Sedimentary Basin, along with expansions of west-to-east pipelines in the U.S. alleviated the capacity constraint and provided the ability to sell to higher priced American markets. The price of western Canadian gas steadily rose to the North American levels with the increased exposure to larger markets.

Two disadvantages B.C. currently has in the natural gas network are the limited number of pipeline supply options and no market area storage capacity. A newly built BC Gas Southern Crossing Pipeline will provide increased access to Alberta gas and therefore improve supply options. BC Gas has also been further diversifying its supply sources and will be modifying its purchasing practices to reduce gas purchase costs.

BC Gas buys most of its gas through annual and seasonal contracts that are indexed to the "hub" at Sumas/Huntingdon where several pipelines interconnect and where numerous buyers and sellers trade gas. Historically, the pricing of gas has been influenced by supply/demand dynamics in the Pacific Northwest and California as they are likely some of the largest competitors for the purchase of gas from the Sumas/Huntingdon hub.

In the next several years, demand for natural gas is expected to grow considerably in the Pacific Northwest as requirements increase for new electricity generation. Currently, two gas-fired generators are under construction, several more have been proposed in the Pacific Northwest, BC Hydro's Burrard Thermal plant is planned to be expanded and additional generation facilities are planned for Vancouver Island. In the past the producing sector has responded to higher gas prices by drilling more wells, thereby providing a higher level of supply which positively impacts the price of gas on the open market.

Alberta

Over 80% of Canadian natural gas production originates in Alberta. Until late 1998 gas prices, in Alberta, were considerably below North American standards. As discussed earlier, lack of access to external markets created an over supply condition in Alberta, creating lower prices until additional pipeline capacity was added along with expansions of west-to-east pipelines in the U.S. Natural gas prices have since risen to near North American standards.

Part of the gas bill, paid by consumers in Alberta, is a common province-wide transmission toll, the intra-provincial tolls for gas transmission are lower than the tolls charged for gas leaving the province. This toll difference has kept the price of gas marginally below North American standards.

To help offset higher energy costs to consumers (natural gas and gasoline), the provincial government has announced that it will provide a $300 Energy Tax Refund to every Alberta resident over the age of 16.

Industrial customers, in Alberta, can purchase their gas from marketers or directly from producers at wholesale prices. Using long term gas delivery contracts and futures commodity contracts, many of Alberta's major industrial users have locked in gas prices at rates lower than the current prices. However, if high market prices remain in effect industrial users will be facing higher prices or the prospect of using alternative fuels at the expiry of their existing arrangements.

Saskatchewan

SaskEnergy sells natural gas to its customers on a one-year fixed price basis. This has sheltered customers from current market conditions. The practice of using the one-year fixed price basis is currently being reviewed and may change in the future. Under a new rate schedule, in effect November 2000, the cost of gas supplied has increased by about 41% over the 1999 price.

As in Alberta, the close proximity to the gas production areas results in lower gas transportation costs that are reflected in lower transmission tolls. The transmission tolls are under a two year rate freeze for 2000 and 2001.

Manitoba

Almost all gas consumed in Manitoba comes from Alberta and Saskatchewan. The difference in the price of gas in Manitoba is roughly equivalent to the increased cost of transporting the gas to Manitoba.

In October 2000, Municipal Gas Manitoba, an energy marketer, was offering residential customers a three-year fixed rate for natural gas supply.

The largest distributor of natural gas in Manitoba has recently received approval to adjust rates on a quarterly basis to keep up with the rapidly changing prices of natural gas. They also have accumulated significant amounts in their deferral accounts (the difference between the cost of gas included in consumer rates and the actual cost of gas) which must, ultimately, be recovered from consumers.

Ontario

Natural gas prices in Ontario are linked to Alberta and Chicago. Prior to 1998, the price of natural gas in Ontario was significantly higher than Alberta. With the construction of additional pipeline capacity out of the Alberta market in 1998, the price differential has decreased and is now equal to about the value of transporting the gas to Ontario.

In October 2000 energy marketers in Ontario were offering three and five-year fixed price contracts for the supply of natural gas.

Quebec

Natural gas prices in Quebec are linked to prices in Alberta, which in turn, depend fundamentally on the North American gas supply and demand conditions. Rates are adjusted every month, on a rolling basis. Consumer gas prices have increased significantly over the period 1995 to 2000.

In order to diversify supply sources, the construction of a pipeline system linking the Quebec natural gas market to the Atlantic offshore facilities at Sable Island is being proposed. This would provide an additional source of gas for consumers in the province.

Atlantic Canada

Natural gas service has just very recently been established for Nova Scotia and New Brunswick with the connection to the Sable Island offshore energy project.

As part of the initial development agreement for the Sable Island area discounts of service tolls by 10% for the initial eight years and 4% for each of the succeeding two years were negotiated.

Summary

The combination of rapid economic growth, a preference for gas-fired electricity generation in the United States, and low gas prices led to sustained growth in natural gas demand throughout the 1990s. Canadian and U.S. gas markets have increasingly evolved into an integrated North American market. Natural gas can be bought from many supply sources and delivered to any market centre through an extensive North American pipeline grid. With the increased integration of the markets, regional supply and demand forces impact the price paid for natural gas throughout the market place.

The information for this report was supplied by the Canadian National Energy Board.

for Rick Earle
DIRECTOR FINANCE