

## Outlook for Canadian Gas Deliverability

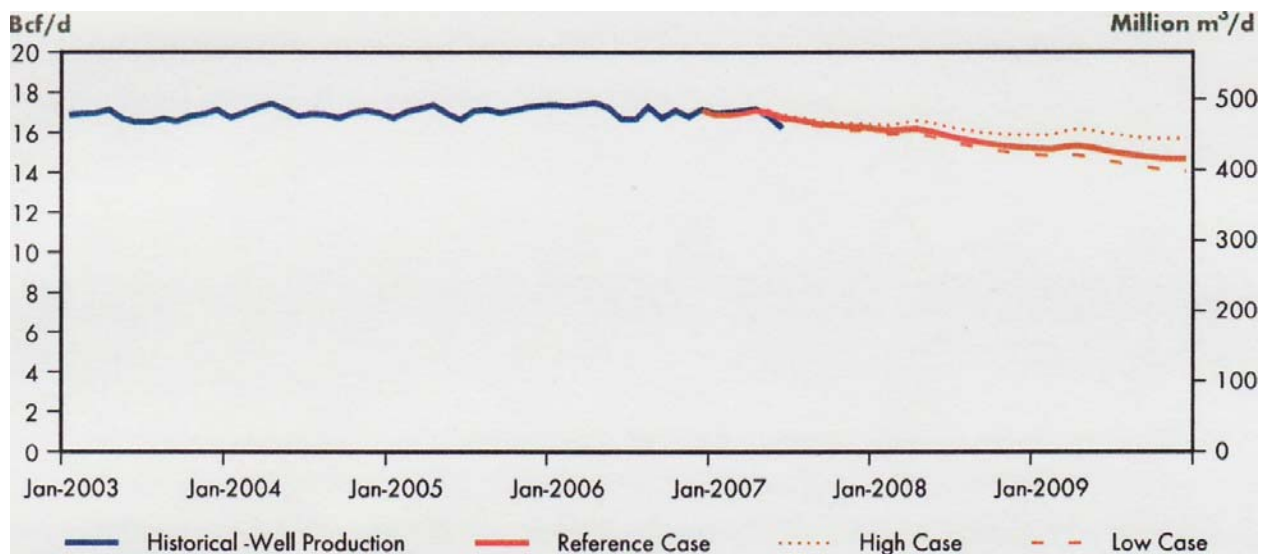
Canadian natural gas is an important part of the North American gas market, providing about 25 percent of combined U.S. and Canadian production for the past several years. The value of producers' sales for Canadian marketable natural gas in 2006 was 42 billion \$Cdn1. This report provides an outlook for Canadian gas deliverability to the end of 2009.

Canadian gas deliverability has been fairly stable since 2000 at about 480 million m<sup>3</sup>/d (17 Bcf/d). Approximately 98 percent of the total Canadian volume comes from the Western Canada Sedimentary Basin (WCSB) with most of the rest from Atlantic Canada. Deliverability from Atlantic Canada is expected to average around 12.4 million m<sup>3</sup>/d (0.44 Bcf/d) in the short term.

Deliverability expectations for the WCSB in the short term are less certain. Drilling and development activity in the WCSB hinges primarily on the price of natural gas in the North American market. That price is volatile, influenced by uncertainties such as weather-driven market demand, availability of imported liquefied natural gas (LNG), and possible supply disruptions in the Gulf of Mexico.

To reflect the short-term uncertainty of the North American natural gas market, deliverability in this report is projected under three scenarios intended to reflect different levels of drilling investment that may occur: Reference Case, High Case and Low Case. Deliverability decreases under all three scenarios. Canadian deliverability is projected to fall to between 410 and 449 million m<sup>3</sup>/d (14.5 to 15.8 Bcf/d) in 2009 from the 2006 level of 483 million m<sup>3</sup>/d (17.1 Bcf/d)

### Outlook for Canadian Gas Deliverability - Reference, High and Low Cases



In the moderate Reference Case scenario, Canadian gas deliverability in 2009 is projected to decrease by almost 59 million m<sup>3</sup>/d (2.1 bcf/d) to 424 million m<sup>3</sup>/d (15.0 Bcf/d).

For the past several years, new wells drilled in the WCSB have had, on average, comparable decline rates over their lifetimes, but have been less productive at start-up than in the past. Initial productivity of new WCSB gas wells fell sharply in the late 1990s, but those decreases have been more moderate recently. Over their first year and half of production, the annual decline rate of the average gas well is 55 percent. For the two following years, the annual decline rate is a more gradual 30 percent.

With initial well productivity decreasing from year to year, natural gas producers were maintaining overall WCSB deliverability at a stable level by increasing the number of wells drilled annually. Improving technology and relatively high North American natural gas prices encouraged producers to invest, even though costs to develop and produce new gas supplies were also rising.

As market prices for natural gas softened in 2006, the costs of maintaining such high levels of activity could not be sustained. A slowdown in natural gas drilling began in 2006 and has now persisted for over a year. Drilling and service companies have reduced the prices they charge over the past year as a result of lower utilization of drilling rigs and services, but some expenses are more difficult to cut due to the high costs of labour, steel and fuel. Further service cost reductions are becoming more challenging, so price becomes the key factor with the potential to change the economics for development of new gas supplies in the WCSB.

Over the past few years, progressively greater proportions of total gas drilling investments are targeting the western side of the WCSB. The deeper wells on the western side are more expensive to develop and drill but also tend to produce more gas supply than the shallower wells on the eastern side. Many of the natural resources on the western side of the basin are more extensive "resource play" deposits.

Although its level of drilling activity has also slowed over the last year, development of coalbed methane (CBM) resources in Alberta remains a bright spot for Canadian deliverability. With ongoing development of the Horseshoe Canyon coals and the start up of the Mannville CBM development, CBM production is expected to increase to approximately 23 million m<sup>3</sup>/d (0.81 Bcf/d) by 2009 in the NEB's Reference Case projection.

Given Canada's large natural gas resource base and ongoing innovation and efficiency, Canadian deliverability will continue to constitute a key part of North American gas supplies.