



OTC 19069

Pipeline Capacity for Transporting New East Coast Supplies—Is There Enough?

Robert L. Whitwham, Maritimes & Northeast Pipeline

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This paper was prepared for presentation at the 2007 Offshore Technology Conference held in Houston, Texas, U.S.A., 30 April–3 May 2007.

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Abstract

The potential exists for significant new sources of natural gas to develop in Atlantic Canada and the U.S. Northeast over the next five to ten years. Incremental supplies are expected to come from both conventional (offshore and onshore basins) and unconventional (LNG, CNG, and/or CBM) sources. The Maritimes & Northeast Pipeline system is a critically important part of the energy infrastructure that delivers gas to growing markets in the region. Capacity of this transmission pipeline can be efficiently and economically expanded to accommodate new supplies. This can be accomplished within or adjacent to the existing pipeline corridor, thereby minimizing impacts on landowners and the environment.

Introduction

Maritimes & Northeast Pipeline

Maritimes & Northeast Pipeline (“MNP”) is a 685 mile natural gas transmission pipeline system that transports gas produced offshore Nova Scotia by the Sable Offshore Energy Project (“SOEP”) to markets in Atlantic Canada and the U.S. Northeast. Constructed in 1999, the MNP mainline extends from the SOEP gas processing plant at Goldboro, Nova Scotia, through the provinces of Nova Scotia and New Brunswick, and the states of Maine, New Hampshire, and Massachusetts (Figure 1). MNP interconnects with the North American pipeline grid at three locations: Westbrook, Maine (Portland Natural Gas Transmission System); Dracut, Massachusetts (Tennessee Gas Pipeline); and Beverly, Massachusetts (Algonquin Gas Transmission). Compressor stations are located at Baileyville, Maine, and Richmond, Maine. Approximately 125 miles of lateral pipelines serve markets in Halifax and Point Tupper, Nova Scotia, as well as Moncton and Saint John, New Brunswick.

The design capacity of the MNP system is approximately 530 mmcf in Canada, and 400 mmcf in the United States. Capacity of the U.S. portion of MNP (“MNP U.S.”) is slated

to be doubled to approximately 800 mmcf by November, 2008 through the addition of new compression facilities.

MNP is owned by affiliates of Spectra Energy, ExxonMobil, and Emera.

Market Overview

The U.S. Northeast¹ is a well-developed and dynamic energy market. With almost ten million natural gas customers in the eight-state area (15% of the U.S. total), natural gas represents approximately 24% of the region’s primary energy consumption. The U.S. Northeast constitutes the anchor market for natural gas supply and infrastructure development north of the mid-Atlantic region.

Annual gas consumption in the U.S. Northeast is approximately 2.5 tcf. Demand is forecasted to grow at a rate of 1.1% per annum over the period 2005 to 2021, according to U.S. Energy Information Administration statistics. This represents an increase in annual consumption of approximately 0.5 tcf, and will be driven by demand in the industrial and power generation sectors.

Gas supply to the region comes from U.S. domestic production, predominantly the Gulf Coast area (53%); western and eastern Canadian imports (40%); and imported LNG, predominantly from Trinidad and Tobago (7%). LNG is expected to constitute an increasing portion of the natural gas supply mix in the coming years due to flat or declining production from conventional North American sources.

Natural gas prices in the U.S. Northeast have experienced significant volatility in the last several years due to increasing demand, constrained supplies, and regional bottlenecks in the pipeline grid. In its *Statistical Guide to the Northeast Gas Industry 2006*, the Northeast Gas Association emphasizes that it is imperative that the region increase its natural gas supply and expand the natural gas pipeline infrastructure to meet future market demand and enhance price stability.

The Atlantic Canadian natural gas market is relatively undeveloped at this point in time. While not large enough to justify new supply projects by itself, it does provide a degree of market optionality for suppliers. Demand growth has been limited, to a certain extent, by the constrained supply situation. However, as new supply sources come on stream in the region, gas consumption is expected to increase. As in the U.S. Northeast, the industrial and power generation sectors will drive gas demand growth in the region.

¹ The U.S. Northeast includes the states of Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Rhode Island, and Vermont.