

MIDSTREAM

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FEATURES

Gas Delays Possible As Northeast Winter Approaches



Political and environmental resistance, and lagging natural gas production present an array of pipeline challenges for the Northeast, says BTU Analytics.

JOSEPH MARKMAN | HART ENERGY

New pipeline capacity has come online in time for the upcoming winter in the Northeast, but it is unlikely that producers can respond fast enough to meet rising gas demand, said a BTU Analytics LLC expert.

“In the near term, as we get this new capacity coming online this winter, with more Rover capacity coming online, we’re not expecting producers to be able to fill those pipeline commitments with incremental gas very quickly,” said energy analyst Matthew Hoza during a recent webinar. “The reason is that backlog has been depleted.”

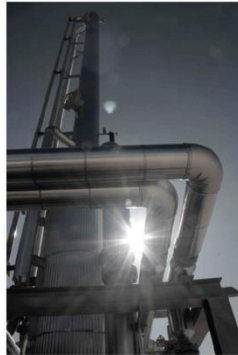
Wells that producers have relied on to quickly and inexpensively ramp up gas production are exhausted, Hoza said, forcing them to drill into new areas to replace those volumes. That will create a lag between new capacity coming online and incremental gas getting to market.

Among Hoza’s other main points:

- U.S. gas demand will continue to shift toward the Gulf Coast, as operations in Texas and Louisiana drive pipeline exports to Mexico and shipborne exports of LNG to Asia, South America and Europe;
- Dominion South pricing will take a hit over the next two years as increasing volumes of associated gas from the Rockies, Permian Basin and Eagle Ford Shale will force Appalachian gas to compete in limited demand markets.

See **DELAY** on Page 3.

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DELAY

Once the near-term natural gas supply issue is resolved, a slew of pipeline projects—among them Constitution (650 million cubic feet per day [MMcf/d] and Northeast Energy Direct 1.2 Bcf/d—could ease the Marcellus-to-New England/New York bottleneck but face political and environmental resistance in the region, he said. BTU Analytics estimates a maximum of 3 Bcf/d of gas that can be moved from Northeast fields to New England markets.

FRAC SPREAD

Editor's Note: Due to unforeseen circumstances this week, the Frac Spread has been delayed and was not available at press time. It will be sent in a separate email.

The weather will determine if that volume will be enough. Last winter's mild temperatures were not much of a test. The winter of 2014-2015, however, especially the month of February, put a severe strain on the system. If a maximum demand situation develops again, Hoza is not optimistic about the result.

"We can only serve 3 Bcf a day of that demand, so in that area there is demand that cannot be served by Northeast piped-in gas," he said.

Adding to his concern is demand from new natural gas-powered power plants in the region. By 2022, piped-in gas from Appalachia will come up 1 Bcf/d short of demand, Hoza said.

"That means a heavier reliance on Canadian imports; an increasingly heavy reliance on LNG imports as well," he said. ■

NEB Report: Canada Expects Slow Decline In Fossil Fuel Usage

In a bid to accelerate market reforms, India will soon build a natural gas trading platform, which could lead to market-determined pricing of gas for domestic and imported supplies.

MARKHAM HISLOP | CONTRIBUTOR

Thanks to more efficient technology and government climate change policies, Canadians will be burning less fossil fuels in the future, according to a new report from the National Energy Board. The decline will likely be very slow between now and 2040, however, and it won't affect the Western Canadian oil and gas sector, which continues to expand throughout the forecast period.

"Energy Futures 2017 shows that real progress is being made towards a low carbon future, says Shelley

Milutinovic, chief economist of the NEB. "Canadian fossil fuel use peaks and then begins to decline, with the extent of that decline depending on future policy and technology assumptions."

Western Canadian natural gas production has been under pressure from cheap U.S. shale gas, losing market share in the American Midwest and Eastern Canada. TransCanada recently lowered transportation tolls on the Canadian Mainline in a bid to cut costs for shippers. "We know our customers are facing new competitive challenges, and we are working with them to find solutions so we can all share in the long-term success of the Western Canada Sedimentary Basin," said Tracy Robinson, TransCanada's senior vice president, Canada Gas. The Canadian Association of Petroleum Producers fears Canadian natural gas exports could fall as much as 50% by 2030.

In the NEB's reference case (which assumes a \$50/ton carbon tax), gas output gradually declines to a low of 14.6 billion cubic feet a day (Bcf/d) in 2022, then rises steadily until it peaks at 16.8 Bcf/d in 2040. Prices are also expected to rise, from a low of \$2 million British thermal units (MMBtu) last year to \$4.30 in 2040, driven by increased demand for power generation and liquefied natural gas exports to Asia. Growth is slower in the high carbon case, primarily in Alberta, which loses 1 Bcf/d over the forecast term.



CANADA

Crude oil production rises 59% (from 4 MMbbl/d in 2016) to 6.3 MMbbl/d by 2040 in the reference case, driven entirely growth in the Alberta oil sands. The high carbon case slows growth by nine per cent and production drops to 5.7 MMbbl/d. Almost all of that increase comes from Alberta in situ production, with mining showing only a slight rise in output. The pace of technology improvement is a major uncertainty, according to the NEB: "EF2017 assumes gradual technological improvement in the sector and more or less rapid technology development could impact the oil sands production projections. Potential advances that could change the supply projections include solvent-based processes, electrification, and CCS technology."

Despite the pervasive hype around electrification of transportation, the NEB predicts EVs will be adopted very slowly in Canada and have a negligible impact on consumption. Only 11,500 EVs were sold in Canada last year, just 0.6% of all passenger vehicle sales, and the reference case assumes that will rise to three percent in 2020 and 16% in 2040; self-driving technology is not widely adopted and has little impact on adoption. The technology case is much more optimistic because it assumes Quebec will continue to provide large EV subsidies (currently \$8,000, higher than the U.S. federal subsidy), forecasting EVs to make up six percent of total sales in 2020 and 47% in 2040.

Even so, more stringent fuel economy standards and higher EV adoption only reduces transportation energy consumption (primarily gasoline and diesel fuels) declines an average of less than one per cent a year (0.5% in the reference case and 0.6% in the high carbon case). And that calculation includes the impact of higher fuel economy standards for freight hauling and other commercial trucking applications, according to Matthew Hansen, an NEB analyst who worked on the forecast. "New for this report is the inclusion of the emission standards for heavy-duty vehicles. These are key elements behind reduced transportation and total fossil fuel projections," he wrote in response to emailed questions.

Canadians shouldn't be surprised that consumption of oil and gas will play a large role in the economy long past 2040. "Energy systems are complex and diverse, so changes in factors like energy efficiency can take time to work through the system," says Hansen. "The share of emerging technology can increase rapidly, but when you start from a small base it can take a while to have a big impact. So, in that sense, fossil fuels continuing to play a large part of the energy system in these scenarios is not surprising, but it also highlights the bending of the fossil fuel trajectory in these scenarios as a pretty significant change."

That trajectory bends very slowly over the next 20 years or so. The NEB's reference case - which is based on the current economic outlook, a moderate view of energy prices, and climate and energy policies similar to those of today - shows Canadian fossil fuel use peaking around 2019 and flattening out in the long term.

Technologies that could bend the trajectory more steeply and more quickly, such as electric vehicles, are immature and, barring unforeseen technical disruptions, will be a long time making a significant impact on Canadian oil and gas consumption, according to Hansen. ■

Court Lifts Stay For Williams Atlantic Sunrise Natural Gas Pipe

A U.S. federal appeals court on Wednesday lifted a temporary stay of construction on Williams Cos Inc.'s nearly \$3 billion Atlantic Sunrise natural gas pipeline from Pennsylvania to South Carolina.

Some energy traders had worried the stay could have caused a delay in the pipeline's in service date, which would keep gas trapped in the Marcellus shale.

Williams has said it expects to complete the pipeline in mid-2018. Atlantic Sunrise will transport up to 1.7 billion cubic feet (bcf) of gas from the Marcellus shale in Pennsylvania to markets in the U.S. Mid-Atlantic and Southeast.

The U.S. Court of Appeals for the District of Columbia dissolved the Nov. 6 stay on Wednesday because the petitioners opposed to the pipeline "have not satisfied the stringent requirements for a stay pending court review."

TransCanada Revenue Tops Estimates On Strength In US Pipelines

TransCanada Corp. reported better-than-expected quarterly revenue on Nov. 10, helped by performance in the company's U.S. natural gas pipelines.

Revenue from the company's U.S. natural gas pipelines unit rose to C\$337 million (\$265.40 million) in the third quarter ended Sept. 30, from C\$332 million a year earlier.

However, revenue in its Canadian natural gas pipelines fell 4% to C\$316 million.

TransCanada is trying to build its 830,000 barrels per day Keystone XL pipeline project as Canadian companies attempt new projects in the face of fierce environmental opposition and concerns about slowing oil sands growth.

The company said it would only decide in December whether to proceed with the project after gauging demand from oil shippers and is awaiting a decision from Nebraska's Public Service Commission.

REUTERS

France's Total Buys Engie's LNG Business For \$1.5 Billion

Total said on Nov. 8 it has acquired the upstream liquefied natural gas (LNG) interests of French power and gas utility Engie for around \$1.5 billion, in a deal which is set to make it the world's second largest player in the LNG market, with a 10% share.

Total said the portfolio includes liquefaction plants, notably Engie's interest in the Cameron LNG project in the U.S., long-term LNG sales and purchase agreements, an LNG tanker fleet as well as access to regasification capacities in Europe.

Total's Chief Executive Patrick Pouyanne told reporters in a call that the acquisition would give it a share of the markets in Europe and Asia, where Engie had some long-term LNG contracts.

"The acquisition of Engie's upstream LNG business enables Total to accelerate the implementation of its strategy to integrate along the full gas value chain, in an LNG market growing strongly at 5% to 6% per year," he said.

The combination of the portfolios will allow Total to manage an overall volume of around 40 million tonnes of LNG per year by 2020, making it the second largest global player among oil majors with a worldwide market share of 10 percent, Pouyanne said, second behind rival Shell.

Total currently has a market share of about 6%.

"With the equity stake in the Cameron LNG project, Total will also become an integrated player in the US LNG market, where the group is already a gas producer," Pouyanne said.

REUTERS

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