Marcellus Takeaway Expansions and Impact on Gas Basis
Can pipeline expansions keep up with power and LNG export demand?

Morningstar Commodities Research
19 October 2016

Contents

Jordan Grimes
Director, Power and Gas
+1 312-244-7046
Jordan.Grimes@morningstar.com

Data Sources for this Publication

- Argus
- EOXLive
- PointLogic

To discover more about the data sources used **Click Here**

Executive Summary

Although Marcellus and Utica natural gas producers did see some basis improvement and higher realized prices this summer as a result of warmer weather, increased power demand, and pipeline maintenance, this proved to be fleeting as demand subsided as we moved into the shoulder season. Dominion South cleared at its lowest price ever, $0.31 per million British thermal unit, possibly causing some economic curtailments. Furthermore, pipeline delays from some key Marcellus expansion projects are beginning to be priced into the forward curve. But as longtime market observers will point out, completing these large greenfield expansions to move gas east was always going to be a major risk to the market. As developers iron out routing and environmental impact concerns, drilled but uncompleted wells, or DUCs, will sit uncompleted, which keeps a lid on Marcellus supply zones. On the positive side for producers that already own firm transmission on completed pipelines, demand zones downstream of the Marcellus could see upside in 2017-18 as large combined-cycle power plants come on line in PJM as well as liquefied natural gas export demand from Cove Point and Gulf Coast LNG with firm rights to nominate from the Marcellus and Utica. By 2019, as major pipeline project are completed, we expect the marginal cost of Marcellus plus transport will be setting prices at most gas demand zones in the midcontinent and East Coast.

In this report, we analyze the impact of each pipeline expansion on eastern supply and demand zone gas prices as well as incremental power and LNG demand coming on line downstream.

Key Takeaways

- Bullish: Power demand from the PJM combined-cycle buildout will increase demand substantially on both Marcellus supply and eastern demand zones.
- Bullish: Exports from both Cove Point and Gulf Coast LNG will source gas from the Marcellus and Utica, finding a much-needed home overseas.
- Bearish: Probable delays of pipeline expansion projects Atlantic Sunrise, Atlantic Coast, and NJR PennEast could temper Marcellus supply zone prices as DUCs sit waiting to be completed.
- Bearish: Winter New England gas prices will continue to see downward pressure with the completion of Algonquin Incremental Project and Constitution pipeline.

Marcellus and Utica Takeaway Outlook

We are in the midst of one of the largest regional expansions of gas pipeline infrastructure in the last 50 years because of the need to find markets for rapidly growing production out of the Marcellus and Utica. The first wave consists largely of brownfield loops and reversals on existing infrastructure that passes over or around the Marcellus and Utica shale. However, as we discussed in a previous outlook, the second wave of pipeline expansions consists of many greenfield projects that face a much higher risk of cancellation, delay, or rerouting. Greenfield pipeline projects are more expensive and problematic, since they involve tougher regulatory and environmental hurdles at the federal, state, and local level. Greenfield projects also need to secure new rights of way. Projects crossing the more densely populated Northeast face pushback from locals and political risk at the state level as witnessed in the recent case of New York Gov. Andrew Cuomo blocking construction of the Constitution pipeline. These delays limit DUC completion in the Marcellus and curtail production, which in the short run could provide support to demand zones, including Henry Hub.

Our analysis of the impact of historical Marcellus pipeline completions on the market helps guide our forward outlook on both Marcellus supply and demand zone prices. We see several key drivers of both flows and prices going forward. In the short run, 2017-18, we believe gas demand in the mid-Atlantic East Coast (Transco Zone 5, Transco Zone 6 Non-NY) will outpace supply as combined cycles come on line in PJM Interconnection and Cove Point ramps up nominations for export. But as a flood of Marcellus gas comes on line in early 2019, we see prices in these zones being set by the marginal cost of Marcellus supply plus transport. To the west, we think project delays are less of an issue and that they will be more a function of firm market subscriber interest and not Federal Energy Regulatory Commission and state discretion. Pipeline expansions to the Gulf will offer the cheaper Marcellus gas downstream, but transport costs and LNG exports from Sabine Pass, Cameron, Freeport and Corpus Christi facilities will temper the bearish impact. As we describe below, these facilities will own firm rights to nominate upwards of 2.1 billion cubic feet per day from the Marcellus and Utica via pipeline expansions. Exhibit 1 shows the step-in capacity as pipeline projects come on line. We exclude pipeline projects that we do not view as pure Marcellus or Utica takeaway capacity as they nominate gas downstream of major constraint points.

To continue reading the full 34 page report, please contact: commodity-research@morningstar.com

About Morningstar® Commodities Research

Morningstar Commodities Research provides independent, fundamental research differentiated by a consistent focus on the competitive dynamics in worldwide commodities markets. This joint effort between Morningstar's Research and Commodities & Energy groups leverages the expertise of Morningstar's 23 energy, utilities, basic materials, and commodities analysts as well as Morningstar's extensive data platform. Morningstar Commodities Research initially will focus on North American power and natural gas markets with plans to expand coverage of other markets worldwide.

Morningstar, Inc. is a leading provider of independent investment research in North America, Europe, Australia, and Asia. The company offers an extensive line of products and services for individuals, financial advisors, and institutions. Morningstar's Commodities & Energy group provides superior quality market data and analytical products for energy data management systems, financial and agricultural data management, historical analysis, trading, risk management, and forecasting.

For More Information
+1 800 546-9646 North America
+44 20 3194 1455 Europe
commoditydata-sales@morningstar.com

MORNINGSTAR®

22 West Washington Street
Chicago, IL 60602 USA