

Shale gas tug-of-war

As two pipelines lead the pack to transport Marcellus NGLs to the US Gulf Coast and into Canada, the supply availability for an Appalachian cracker is questioned, writes Samantha Santa Maria

Since the announcement more than a year ago of several infrastructure projects bent on moving natural gas liquids out of the Marcellus Shale, two proposed pipelines have recently moved to the head of the pack, sources said.

But as these pipes sign up producers and lock down supplies, sources are divided as to whether there will be sufficient supply to feed a new ethane cracker in the region.

NGL supply expectations still vary widely, with Wells Fargo Securities predicting 170,000 barrels/day by 2015, while consulting firm En*Vantage pegs levels at as much as 210,000 b/d and Platts unit Bentek Energy calls for 325,000 b/d by the same time frame.

Meanwhile, the only two pipeline projects that have thus far signed up shippers are MarkWest Liberty Midstream & Resources and Sunoco Logistics' Mariner West and Enterprise Products Partners' Appalachia-to-Texas line.

Mariner West includes building a 40-mile pipeline from MarkWest Liberty's Houston fractionation complex in Pennsylvania to an interconnect with an existing pipeline belonging to Sunoco near Vanport, Pennsylvania. From there, the line would continue to Marysville, Michigan, and cross the border to Sarnia, Ontario, home of a massive petrochemicals and refineries complex. The 50,000 b/d project is slated to come online in July 2013 and could be expanded to 65,000 b/d.

Calgary-based petrochemicals firm Nova Chemicals has signed up for an undisclosed amount of ethane deliveries.

ATEX, meanwhile, is a 1,230-mile, 90,000 b/d system combining new construction with a reversal of an existing propane line from Washington County in southwestern Pennsylvania to Enterprise's benchmark hub at Mont Belvieu, Texas.

Chesapeake Energy, a major Marcellus producer, has signed up to deliver as much as 75,000 b/d on the line when it begins

service in first-quarter 2014. In early January, another major Marcellus producer, Range Resources, committed to a 15-year, 20,000 b/d contract on ATEX.

Shell Chemicals and West Virginia start-up Aither Chemicals, meanwhile, have announced possible new crackers for startup around 2016 or 2017.

Details on Shell's cracker have been scant – the company is studying a location in Pennsylvania – but Aither's Chief Executive Leonard Dolhert said his company is looking to build a small cracker – in the range of 200 million pounds/year – in a year's time, with a full-scale plant within three to five years. "There's enough ethane for both Shell and Aither," Dolhert said.

AVAILABILITY DEBATED

Several analysts, however, were quick to point out that a world-scale cracker would require – depending on its planned output – anywhere between 30,000 b/d and 90,000 b/d of ethane, possibly outpacing most expectations of locally available supply.

While some sources said NGL supplies should be sufficient to support Mariner West, ATEX and a regional cracker, others said the supply-demand balance appeared tight.

"Nova might expand in Sarnia; Westlake is expanding its Calvert City plant in Kentucky, two world-class plants are planned on the Gulf Coast," En*Vantage's Peter Fasullo said. "If Shell is going to build a cracker in Appalachia, they have to act very quickly to secure all the ethane they need. I just don't see a surplus of ethane."

Nova's communications director Pace Markowitz confirmed the company is looking to further expand its cracking facilities between late 2014 and 2017, but did not disclose how many additional barrels it would need.

Along the Gulf Coast, expansions and new builds are rampant. Chevron Phillips Chemical plans to build a cracker in Baytown, Texas, and Dow Chemical also

has announced plans to build a world-scale cracker in the vicinity. Dow's aggressive expansion plans also call for restarting an idle unit in Hahnville, Louisiana, as well as ethylene capacity additions at its Freeport, Texas, and Plaquemine, Louisiana, sites.

LyondellBasell, Williams, BASF-Total, Westlake and Ineos also plan to increase ethane-processing and ethylene production capacity in the Gulf Coast over the next few years.

Platts estimates an additional 300,000 b/d of ethane by 2017 will be needed on the Gulf Coast to support these expansions and new builds — barrels that would have to not only come from shale plays nearby, but also from the Marcellus, sources said.

BILLION-DOLLAR QUESTION

From a supply perspective, however, Petral Consulting president Dan Lippe sounded a far more cautionary note. Given the long-term depressed price environment, producers might further curtail production in the Marcellus, effectively curbing NGL supplies as well. "The question then becomes: Will there be enough supplies to support all the projects the midstream companies want to do?" Lippe asked.

Sources close to the matter said concerns about securing supplies was delaying further news on the Shell project. Other analysts disagreed. "Shell has the upstream production," said Ken Fung, director of North American gas with IHS CERA. "They wouldn't be doing this if they couldn't fully leverage the full value chain."

Tudor Pickering Holt & Co.'s Vice President of Midstream Research Bradley Olsen said the stakes are not insurmountable for Shell or any company intent on siting a cracker in Appalachia. A company would simply need to undercut the pipeline transportation costs, he said.

STORY CONTINUES ON PAGE 46