

MIDSTREAM

Monitor

MARCH 2, 2018 | VOLUME 36 | ISSUE 9

FEATURES

LNG At Dominion Cove Point Moving Out Soon

JOSEPH MARKMAN
HART ENERGY

PITTSBURGH—Projects like Cove Point LNG have been on the horizon for so long that Don Raikes' simple declaration at the recent Marcellus-Utica Midstream Conference drew a few gasps.

"Our projected in-service date is early March 2018, very soon," said Raikes, senior vice president for Dominion Midstream Operations' gas infrastructure group. "We made our first LNG two days ago."

The conversion of Dominion's (NYSE: [D](#)) 1,000-acre facility from import facility to major bi-directional terminal was not just *going* to happen but was *happening*.

"Cove Point is a game-changer, both in terms of Northeast market and world LNG," Raikes said.

At least part of the

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reason is that its Maryland home on the Eastern Seaboard positions Cove Point near the mighty Marcellus Shale. It's a point that is not lost on potential customers.

"When I toured the world selling Cove Point capacity with my team, the one word that you didn't need an interpreter for—wherever you were—is Marcellus," Raikes said. Subscribers include representatives from LNG-thirsty countries such as ST Cove Point, a joint-venture of Sumitomo Corp. and Tokyo Gas Co. Ltd.; and the U.S. affiliate of GAIL (India) Ltd.

While access to natural gas from the Marcellus and Utica is a key selling point, along with the Cove Point's stature as only the second U.S. LNG export facility to begin operation (after Cheniere Energy Inc.'s Sabine Pass, La.) and first on the East Coast, Raikes also emphasized the tolling business model. ■

Analyst: Appalachian Hub Could Be A Game-Changer

PITTSBURGH—A world hungry for energy needs Appalachia, one of its greatest resource centers, to develop a multi-commodity energy hub, an analyst told attendees at the recent Marcellus-Utica Midstream Conference.



That hub should be "a chain of value chains. Not just one, but multiple," said Greg Haas, director of integrated energy at Stratas Advisors.

NGL will be particularly critical to the concept, he said, noting that its plentiful supply in the Marcellus and Utica shales "is the driver for all the concepts and the energy around this concept of an energy hub."

The Stratas 10-year forecast shows roughly 2 million barrels a day (MMbbl/d) of incremental growth up to about 6 MMbbl/d of production. Of that, 2.9 MMbbl/d is in Petroleum Administration for Defense District (PADD) 1, covering the East Coast, and PADD 2, covering the Midwest.

The challenge is to find markets for NGL like ethylene and propylene. Asia, which now accounts for 51% of global demand, might be a good place to start.

"The important thing is to note with all the planned expansions of ethylene crackers on the continent, it's clear that we're going to have to take market share from somewhere," Haas said. "And our sense is that it will come out of Asia as well as out of the European manufacturers."

It won't be easy, though. Asia's ethylene crackers are "a little more competitive than we had initially thought," Haas said.

Still, creating a super-value chain hub puts Appalachia in a high-stakes worldwide competition with the potential for a tremendous outcome. With Appalachia facing competition domestically and abroad, a multi-commodity hub would position the region to take advantage of the glut of supply.

Haas outlined several major projects that have moved into Appalachia already, intent on getting good foothold on storage, NGL output, and olefins production, among other operations.

Asian companies are in the mix. Even during the conference, South Korea's Daelim Industrial Co. joined Thailand's PTT Global Chemical in a partnership to move forward with a proposed \$6 billion ethane cracker in Ohio.

The Mariner East 2 pipeline expansion and a Utica-Marcellus-to-Texas pipeline could prove significant in dreams for an Appalachian midstream energy hub, Haas said. He noted that Mariner has been delayed by a state judge "because of some construction-related concerns, but the project sponsors, as I understand it, are still committed toward the 2018 startup."

And throughout greater North America, Canadian projects such as Kinder Morgan's Utopia Pipeline, which just came online, "helps feed the other crackers north of the border." — ERIN PEDIGO | HART ENERGY



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FRAC SPREAD

Butanes Rally, Propane Makes A Comeback

JOSEPH MARKMAN | HART ENERGY

While our collective focus may be on the earliest Opening Day (March 29) in Major League Baseball history, it might be time to start thinking about the World Series.

CURRENT FRAC SPREAD (CENTS/GAL)				
MARCH 2, 2018	Conway	Change from Start of Week	Mont Belvieu	Last Week
Ethane	14.58		23.88	
Shrink	16.28		17.56	
Margin	-1.70	-13.01%	6.32	-7.41%
Propane	68.72		91.11	
Shrink	22.50		24.26	
Margin	46.22	-4.67%	66.85	9.42%
Normal Butane	83.78		95.28	
Shrink	25.47		27.46	
Margin	58.31	6.13%	67.82	16.11%
Isobutane	96.00		112.38	
Shrink	24.46		26.37	
Margin	71.54	6.24%	86.01	19.09%
Pentane+	135.50		137.80	
Shrink	27.24		29.37	
Margin	108.26	3.99%	108.43	3.17%
NGL \$/Bbl	26.73	1.18%	31.88	6.43%
Shrink	8.97		9.67	
Margin	17.76	1.97%	22.20	8.27%
Gas (\$/mmBtu)	2.46	-0.33%	2.65	2.43%
Gross Bbl Margin (in cents/gal)	40.53	1.51%	52.00	8.40%
NGL Value in \$/mmBtu (Basket Value)				
Ethane	0.80	1.39%	1.31	-0.38%
Propane	2.39	-3.29%	3.16	7.47%
Normal Butane	0.90	4.07%	1.03	11.80%
Isobutane	0.60	4.48%	0.70	14.71%
Pentane+	1.75	3.09%	1.78	3.01%
Total Barrel Value in \$/mmbtu	6.44	0.68%	7.98	6.19%
Margin	3.98	1.31%	5.34	8.16%

Price, Shrink of 42-gal NGL barrel based on following: Ethane, 36.5%; Propane, 31.8%; Normal Butane, 11.2%; Isobutane, 6.2%; Pentane+, 14.3%, Fuel, frac, transport costs not included. Conway gas based on Midwest region, Mont Belvieu based on Houston region. Shrink is defined as Btus that are removed from natural gas through the gathering and processing operation.

14.7% in the past week to \$1.1238/gal, its high point for the year and highest level in almost 13 months. The week's margins also widened dramatically at Mont Belvieu: 16.1% for butane and 19.1% for isobutane.

Ethane has hovered around 24 cents/gal for the past four weeks as the New York Mercantile Exchange near-month Henry Hub price has averaged about \$2.70 per million Btu. En*Vantage does not expect ethane balances to tighten until mid-year when demand reaches 1.8 million barrels per day and the ethane spread could reach 10 cents/gal. Last week's spread narrowed to 6.32 cents/gal from 6.83 cents/gal the week before. ■

Granted, they haven't played the games yet, but the Fall Classic is penciled in to start on Oct. 23 and by then propane inventories could be tight. That's because the Mariner East 2 NGL pipeline is expected to be operational by then—third quarter, most likely—and En*Vantage predicts that the market will start to worry about sufficient propane supplies for the winter.

"There will likely be a repeat of last year's cycle where propane prices relative to crude will be highest in the summer and fall months and lowest in the winter and spring months," En*Vantage said.

Propane climbed back over 90 cents a gallon (gal) at Mont Belvieu, Texas, in the past week for the first time in five weeks and was 10% higher than the five-day average of two weeks ago.

En*Vantage believes propane stocks could descend below 35 million barrels before the end of March. By the end of May, they should recover to about 44 million barrels.

Butane, which tumbled below \$1/gal shortly after the start of the year, has jumped 19.6% at Mont Belvieu in the last two weeks. En*Vantage speculated that the sudden volatility in butane prices may have been caused by international traders buying for export markets. A major buyer or buyers could have been caught short.

The Mont Belvieu price for isobutane soared



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INDUSTRY VOICE

Integrated Measurement Automation Serves Today's Lean, Mean and Agile Midstream Industry

How are today's midstream companies operating profitably in light of \$60 oil?

Granted, they're processing more of it since drilling and production have ramped up—but they're also exploiting the numerous transformations in their business processes they began when oil was below \$50.

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They're lean and mean. They've increased their organizational agility. They've digitized. And they're embracing millennials. Millennials will soon constitute a majority of the workforce in the United States and have new expectations when it comes to technology deployment in the workplace.

Today, the industry is putting the latest technology to work. Midstream companies are taking advantage of such recent developments as Big Data analytics, fog computing, machine learning and the Internet of Things (IoT).

Measurement departments have found themselves directly in the center of the transformations that are sweeping the industry. They are supporting the dynamics of today's newly-agile and digitized organizations. That means providing instant access to up-to-date measurement information throughout the organization while maintaining one source of truth.

Flow-Cal has been a key enabler of the digitalization and business process transformations that midstream measurement operations have put into practice. Our integrated measurement automation application, FLOWCAL Enterprise, is capable of managing natural gas, natural gas liquids (NGLs), chemicals, crude oil and refined products. It allows measurement professionals to track the flow of gas and liquids from the wellhead to the tailgate of a midstream operation. (SPONSORED CONTENT)

5 Ways to Attract a New Generation of Midstream Drivers

The shortage of qualified drivers has been a challenge for trucking companies in recent years. The problem continues to grow as the current workforce of long-haul and regional drivers age and retire with fewer recruits coming up to replace them. And now, with oil prices and production starting to climb again, the shortage is likely to hit the oil and gas industry hard, unless companies find ways to attract and incentivize a new generation of drivers. [Try a Brother Mobile Printer for Free](#)

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A recent report¹ from the American Trucking Associations notes: "The driver shortage is really a problem for the entire supply chain as 70.6% of all freight tonnage is moved on the nation's highways." According to the report, the shortfall is expected to rise by the end of 2017 to the highest level on record as freight volumes recover and the industry transitions to the use of electronic logging devices to record driver hours-of-service."

Some freight transportation companies are seeking creative ways to recruit new drivers offering incentives such as sign-on bonuses, training for CDLs, on-the-job apprenticeships, and other enticements to make the driver lifestyle more appealing for a diverse new generation of truckers. The energy sector might do the same by offering on-the-job training, financial incentives, and/or a range of lifestyle perks. (SPONSORED CONTENT)

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