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Q&A



Pierre Bechelany Of Fluor

JOSEPH MARKMAN HART ENERGY

ierre Bechelany left Louisiana Tech University with two degrees in mechanical engineering and a job with GE working on a contract for NASA. It turned out that space would be his first but not final frontier. Six weeks into his career, Bechelany received a call from Bechtel with an offer for a job in oil and gas. As a native of the Middle East, the industry was in his DNA and he jumped at the chance. He started in refining but soon moved into the company's pipeline and LNG businesses.

Bechelany joined engineering and construction giant Fluor Corp. (NYSE: **FLR**) in 2010 as vice president of upstream operations. He moved into the pipeline and LNG business in 2013 and was named

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president of the division in August 2017, responsible for the company's global marketing in pipeline, LNG and LNG regasification. A diverse company with a global workforce of more than 56,000 and 2017 revenue of about \$19.5 billion, Fluor's projects on five continents provide capacity of 60 million tonnes per year. Bechelany spoke with Hart Energy at the recent World Gas Conference in Washington, D.C. The edited conversation follows:

Hart Energy: When you sit down to plan an LNG facility and you're talking to the client, what is the first thing you ask?

Bechelany: For us, especially if we are in a competitive bidding situation, we want to know how much front-end engineering was done. My first question: Have you done a full FEED (front-end engineering decign) on it. When you enter into an EPC (engineering procurement construction)

end engineering design) on it. When you enter into an EPC (engineering procurement construction) contract, there is time pressure, scheduling is an issue, price, lump sum etc. You want to make sure all the design options are thought out and people have thought about the process and technology, and make sure you have a very defined scope. For me, it's key



Source: Fluor, Klaipedos Nafta AB

Fluor provided project management and advisory services for the Klaipedos Nafta LNG import terminal located in Klaipeda, Lithuania.



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before we can commit to the EPC phase, especially if it's lump sum.

Hart Energy: So you want to know how much they know about where they're at?

Bechelany: Yes, because that depends on the amount of effort we need to spend. We do a lot of verification. We make sure they have done what they have supposed to have done and give us the documents before we can give them a price.

Hart Energy: What are clients asking for when they talk to you about their projects?

Bechelany: Every client will tell you: costs and schedules. That's what they want. At the end of the day,

the client wants to know what it's going to cost, because at the end of the day, they're going to go and sell the gas or sell the products to their customers. They want to know when we're going to finish it so they can have a contract with their customers. They need to deliver the gas. Otherwise they're going to go and buy on the spot market to make their commitments.

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FRAC SPREAD

What A Difference A Regional Hub Makes

JOSEPH MARKMAN | HART ENERGY

The decline of ethane rejection has blown out the price differential between Conway, Kan., and Mont Belvieu, Texas, and signals a southbound pipeline constraint.

"Before additional infrastructure is operational, pricing at Conway is likely to remain relatively weak," wrote Marissa

CURRENT FRAC SPREAD (CENTS/GAL)				
JULY 20, 2018	Conway	Change from Start of Week	Mont Belvieu	Last Week
Ethane	11.48		34.35	
Shrink	17.81		18.40	
Margin	-6.33	-5.34%	15.95	-10.81%
Propane	70.17		91.33	
Shrink	24.60		25.42	
Margin	45.57	-8.39%	65.91	-6.75%
Normal Butane	79.73		107.33	
Shrink	27.85		28.78	
Margin	51.88	-1.88%	78.55	-6.16%
Isobutane	99.90		117.15	
Shrink	26.75		27.64	
Margin	73.15	-7.52%	89.51	-7.42%
Pentane+	131.20		148.14	
Shrink	29.79		30.78	
Margin	101.41	-3.59%	117.36	-5.61%
NGL \$/Bbl	25.99	-3.32%	34.97	-5.39%
Shrink	9.81		10.14	
Margin	16.18	-5.30%	24.84	-6.77%
Gas (\$/mmBtu)	2.69	0.13%	2.78	-1.85%
Gross Bbl Margin (in cents/gal)	37.03	-5.65%	57.91	-6.83%
NGL Val	lue in \$/mmBtu	(Basket Value)		
Ethane	0.63	3.42%	1.89	-6.22%
Propane	2.44	-5.57%	3.17	-5.44%
Normal Butane	0.86	-1.19%	1.16	-5.04%
Isobutane	0.62	-5.59%	0.73	-6.17%
Pentane+	1.69	-2.77%	1.91	-4.86%
Total Barrel Value in \$/mmbtu	6.24	-3.38%	8.86	-5.49%
Margin	3.56	-5.87%	6.08	-7.06%

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. Anderson, senior energy analyst for BTU Analytics Inc., in a recent **report**. "In particular, ethane at Conway will likely be related to regional natural gas prices to encourage ethane rejection."

Mont Belvieu, by contrast, has experienced an upward swing in ethane prices as new petrochemical facilities open on the Gulf Coast,

she wrote. That makes it viable to bypass Conway when moving Rockies gas to Mont Belvieu, even with higher transportation costs.



The price **CLICK HERE** TO READ MORE ONLINE

differential between the

two hubs is 22.8 cents per gallon (gal) or 67%. It narrowed in the last week by 2.76 cents/gal, or 10.8%. The margin differential in the last week tightened by 2.28 cents/gal or 9.3%. Mont Belvieu's ethane price is 39.6% higher than it was a year ago, while Conway's price is 43% lower.

Ethane rejection is not increasing, **Envantage Inc.** contends, countering the opinion of some other analysts. Demand in the second quarter west of the Marcellus-Utica exceeded the analysts' forecast by about 50,000 barrels per day (bbl/d).

Envantage sees third-quarter demand increasing as Exxon Mobil's Baytown, Texas, cracker begins production this summer and Indorama's Lake Charles, La., facility restarts.

"Between now and 2020, ethane supplydemand balances will be tight, causing spikes in

ethane prices at Mont Belvieu from time to time as more demand comes online," Envantage said. "Bottlenecks will be exposed, such as inadequate takeaway and fractionation capacity, or any brine limitations at Mont Belvieu."

In the week ended July 13, storage of natural gas in the Lower 48 experienced an increase of 46 billion cubic feet (Bcf), the U.S. Energy Information Administration reported, compared to the Bloomberg consensus forecast of 56 Bcf and the five-year average of 62 Bcf. The figure resulted in a total of 2.249 trillion cubic feet (Tcf). That is 24% below the 2.959 Tcf figure at the same time in 2017 and 19.2% below the five-year average of 2.784 Tcf.

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Analysts: Expect Oil Producers To Boost Capex

Oil producers may be tempted to boost capex in second-half 2018 to fully exploit high prices while the natural gas price outlook appears less promising until LNG facilities come online in 2021, **Drillinginfo**Inc. said in a report of its most recent five-year projections.

Analysts are bullish about short-term dynamics and expect commodity prices to remain at healthy levels but long-term demand will likely hinder production growth and prices.

The U.S. remains on track to pass Russia as the world's leading producer of crude oil, Drillinginfo said, but that distinction will be delayed because of severe production declines in Venezuela and a blockade of Libya's oil ports by a militia leader in the eastern half of the country. Replacing those lost barrels on the world market falls to Saudi Arabia and Russia.

"While this will likely delay the U.S. in reaching the top spot for crude oil production for a while, it will not stop the inevitable," Drillinginfo said. "The robust economics and vast shale resources will make sure of it, especially with \$65+/Bbl prices."



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The analysts expect U.S. dry gas production expansion to slow, but still experience average increases of 2 billion cubic feet per day (Bcf/d) over the next five years, leading to projected output surpassing 90 Bcf/d by year-end 2023.

Assuming a static price of \$60/bbl for West Texas Intermediate (WTI) crude oil, analysts expect gas to continue to average \$2.60 per million British thermal units (MMBtu) through 2020, then move up into the \$2.65/MMBtu to \$2.80/MMBtu range beginning in 2021. LNG export terminals that come online then will add demand and apply upward pressure to natural gas prices. —JOSEPH MARKMAN | HART ENERGY



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MIDSTREAM CONNECT

Outlook For Midstream In Texas

This month's Midstream Connect offers a sampling of the speakers at the 2018 Midstream Texas Conference in Midland.

You can find the full videos of the featured speakers—**Robert Bourne** of Apache Corp.; **legal roundtable** panelists Ben Rhem of Jackson Walker, Jason Fleicher of Gibson, Dunn and Crutcher, and Joseph Dancy of the University of Oklahoma; and economist **Laura D. Speake** of Caterpillar on the video section of the UGCenter.com website.

-JESSICA MORALES AND JOSEPH MARKMAN | HART ENERGY

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