

Farrell: No One Energy Source Can Meet Utility Demands

As electric demand increases, all fuels will be needed

BY **FRANK NIETO** | MIDSTREAM MONITOR,
MIDSTREAMBUSINESS.COM

Ten years ago, the U.S. energy industry was finalizing plans to import approximately \$100 billion worth of liquefied natural gas (LNG) to make up for the rapid decline in domestic natural gas production.

What a difference a decade makes. Now the U.S. is estimated to have at least a century's worth of natural gas supplies and domestic production reached an all-time high in 2012 with natural gas import levels falling to their lowest levels in more than 20 years. It is now believed that the U.S. will be a net exporter of natural gas within the next decade.

"There is no question that America's emergence as a global natural gas superpower would make a great story for our country," Thomas Farrell III, chief executive of Dominion said during a recent speech at the U.S. Chamber of Commerce's Institute for 21st Century Energy in Washington, D.C.



Already the country's economy is experiencing tremendous benefits from this increase in production as domestic natural gas prices have fallen from \$13 per thousand cubic feet (/Mcf) in 2008 to around \$2/Mcf in 2012. Currently prices have risen above \$4/Mcf, but the country still has very low prices compared to the rest of the world. By comparison, prices in Europe are trading about three times as high and Asian prices are approximately four times as high.

"With those kinds of price differentials, it is no wonder that companies like Germany's BASF have announced

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NGL PRICES & FRAC SPREAD | Week in Review

Gas Price Increases Causing Coal Displacement

BY **FRANK NIETO** | EDITOR, MIDSTREAM MONITOR, MIDSTREAMBUSINESS.COM

Natural gas liquids (NGL) prices were up across the board at both hubs the final week of April. These increases improved frac spread margins at both Conway and Mont Belvieu. With dipping natural gas prices, the shoulder season is in full force. Indeed, natural gas prices fell 3% at both hubs due to mild weather that has seen cooling and heating demand stagnate in the early spring. The Conway price fell to \$4.12 per million Btu (/MMBtu) and the Mont Belvieu price dropped to \$4.23/MMBtu.

CURRENT FRAC SPREAD (CENTS/GAL)				
May 6, 2013	Conway	Change from Start of Week	Mont Belvieu	Last Week
Ethane	21.62		29.34	
Shrink	27.32		28.04	
Margin	-5.70	40.45%	1.30	342.44%
Propane	88.12		95.90	
Shrink	37.74		38.75	
Margin	50.38	6.07%	57.15	3.98%
Normal Butane	120.18		127.70	
Shrink	42.72		43.87	
Margin	77.46	3.46%	83.83	1.87%
Isobutane	126.13		132.37	
Shrink	41.04		42.13	
Margin	85.09	9.70%	90.24	2.32%
Pentane+	220.28		209.24	
Shrink	45.69		46.91	
Margin	174.59	2.67%	162.33	8.31%
NGL \$/Bbl	38.67	2.93%	40.37	2.85%
Shrink	15.05		15.45	
Margin	23.61	7.32%	24.92	6.51%
Gas (\$/mmBtu)	4.12	-3.29%	4.23	-2.53%
Gross Bbl Margin (in cents/gal)	52.86	7.60%	56.84	6.45%
Gross Bbl Margin (in cents/gal)				
Ethane	1.19	15.74%	1.62	3.90%
Propane	3.06	1.85%	3.33	1.25%
Normal Butane	1.30	0.96%	1.38	0.31%
Isobutane	0.79	5.11%	0.82	0.72%
Pentane+	2.84	1.37%	2.70	5.68%
Total Barrel Value in \$/mmbtu	9.17	3.45%	9.85	2.68%
Margin	5.05	9.69%	5.62	6.99%

NGL PRICES						
Mont Belvieu	Eth	Pro	Norm	Iso	Pen+	NGL Bbl
April 24 - 30, '13	29.34	95.90	127.70	132.37	209.24	\$40.37
April 17 - 23, '13	28.24	94.72	127.30	131.42	198.00	\$39.25
April 10 - 16, '13	28.48	94.08	130.76	133.70	206.52	\$40.03
April 3 - 9, '13	28.31	91.48	135.44	139.24	208.04	\$40.19
April '13	28.58	93.99	131.09	135.73	205.91	\$40.07
March '13	27.95	89.66	141.09	145.14	212.62	\$40.69
1st Qtr '13	25.68	86.42	157.72	166.41	222.63	\$42.07
4th Qtr '12	26.59	88.74	162.76	181.71	215.67	\$42.69
3rd Qtr '12	32.34	89.27	142.76	161.88	200.54	\$41.03
2nd Qtr '12	37.00	97.80	160.76	175.08	207.57	\$44.54
April 25 - May 1, '12	47.09	116.40	191.54	203.78	235.03	\$52.55
Conway, Group 140	Eth	Pro	Norm	Iso	Pen+	NGL Bbl
April 24 - 30, '13	21.62	88.12	120.18	126.13	220.28	\$38.67
April 17 - 23, '13	18.68	86.52	119.04	120.00	217.30	\$37.57
April 10 - 16, '13	21.52	86.32	121.72	128.50	213.45	\$38.11
April 3 - 9, '13	24.72	87.00	127.56	134.13	212.75	\$39.13
April '13	22.05	87.03	123.12	129.73	216.88	\$38.62
March '13	25.29	85.20	134.11	143.21	217.48	\$39.91
1st Qtr '13	23.94	81.81	153.43	160.39	222.63	\$41.11
4th Qtr '12	18.45	79.24	164.46	174.39	209.16	\$39.94
3rd Qtr '12	14.60	70.25	124.35	165.61	195.68	\$34.99
2nd Qtr '12	11.18	72.63	135.80	161.38	203.31	\$35.72
April 25 - May 1, '12	13.70	84.96	156.76	189.96	224.84	\$40.92

(Above) Data Provided by Intercontinental Exchange. Individual product prices in cents per gallon. NGL barrel in \$/42 gallons | Source: Frank Nieto

(Left) 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 NGPL Midcontinent zone, Mont Belvieu based on Houston Ship Channel.

Shrink is defined as Btus that are removed from natural gas through the gathering and processing operation.

Prices should remain in the \$4.00/MMBtu range this summer should normal weather persist, according to Barclays Capital. The investment firm did note that utilities have begun to switch back to coal as gas prices have improved, and this causes a little concern..

“While balances have tightened, the gas markets cannot afford to price out coal displacement all together, and we expect this dynamic to limit upside risks to prices during the summer season,” according to Barclays Capital’s *Gas and Power Kaleidoscope* for the week of April 30.

NGL PRICES & FRAC SPREAD | Week in Review

The largest price increase for any NGL the week of April 24 was Conway ethane, which rose 16% to 22¢ per gallon (/gal). This was lower than the average price for the product in each of the first four months of 2013. The Mont Belvieu price rose 4% to 29¢/gal, its highest price in a month.

Despite these positives, Wells Fargo Securities' April *NGL Snapshot* noted that ethane prices are likely to remain depressed with limited upward mobility until new ethane crackers come online in 2017. "We project ethane to trade below its floor value (i.e., natural gas-equivalent price plus transportation and fractionation costs) during this period."

While the industry anticipates an increase in ethane cracking capacity, the improvement in ethane prices this week was due to some capacity coming back online. The crackers returning to service were Williams' Geismar facility along with ChevronPhillips' three Sweeney crackers and Flint Hills Resources' Port Arthur cracker. It should be noted that even with ethane prices improving, margins remained negative at Conway and only positive in the theoretical sense at Mont Belvieu.

KEY NORTH AMERICAN HUB PRICES	
2:30 PM CST / May 2, 2013	
Gas Hub Name	Current Price
Carthage, TX	4.21
Katy Hub, TX	4.30
Waha Hub, TX	4.24
Henry Hub, LA	4.28
Perryville, LA	4.23
Houston Ship Channel	4.32
Agua Dulce, TX	3.59
Opal Hub, Wyo.	4.14
Blance Hub, NM	4.11
Cheyenne Hub, Wyo.	4.15
Chicago Hub	4.41
Ellisburg NE Hub	4.21
New York Hub	4.40
AECO, Alberta	3.79

Source: Bloomberg

ate (WTI) crude oil as the market reacted to Energy Information Administration (EIA) statistics that indicated crude stock levels increased at a lesser rate than expected. It is likely that this price increase will retract in the coming weeks judging by WTI prices decreasing in the days after this announcement.

Mont Belvieu C₅₊ had the second-largest price increase of any NGL improving 6% to \$2.09/gal, its highest price in a month. However, it remained lower than the Conway price for the ninth consecutive week. The Conway price rose 1% to \$2.20/gal, which was also the hub's highest price in a month.

These prices improved on the back of a nearly \$5 per barrel (/bbl.) improvement for West Texas Intermedi-

RESIN PRICES – MARKET UPDATE – MAY 3, 2013					
TOTAL OFFERS: 16,970,824 lbs		SPOT		CONTRACT	
Resin	Total lbs	Low	High	Bid	Offer
PP Copolymer - Inj	5,395,748	0.66	0.82	0.675	0.715
PP Homopolymer - Inj	3,361,864	0.66	0.72	0.655	0.695
HDPE - Inj	1,570,024	0.64	0.71	0.625	0.665
LDPE - Film	1,238,208	0.62	0.705	0.685	0.725
HDPE - Blow Mold	1,173,656	0.635	0.68	0.605	0.645
GPPS	928,000	0.88	0.93	0.84	0.89
HIPS	844,000	1.01	1.05	0.96	1.01
LLDPE - Film	705,472	0.68	0.73	0.635	0.675
LDPE - Inj	699,196	0.655	0.7	0.675	0.715
HMWPE - Film	617,288	0.7	0.73	0.645	0.685
LLDPE - Inj	437,368	0.68	0.76	0.635	0.675

Source: Plastics Exchange – www.theplasticsexchange.com

The theoretical NGL bbl. price rose 3% at both hubs with the Conway price up to \$38.67/bbl. with a 7% increase in margin to \$23.61/bbl. The Mont Belvieu price rose to \$40.37/bbl. with a 7% increase in margin to \$24.92/bbl.

The most profitable NGL to make at both hubs remained C₅₊ at \$1.75/gal at Conway and \$1.62/gal at Mont Belvieu. This was followed, in order, by isobutane at 85¢/gal at Conway and 90¢/gal at Mont Belvieu; butane at 78¢/gal at Mont Belvieu and 84¢/gal at Conway; propane at 50¢/gal at Conway and 57¢/gal at Mont Belvieu; and ethane at negative 6¢/gal at Conway and 1¢/gal at Mont Belvieu.

The EIA reported that natural gas storage levels continued to experience slow increases for the injection season with a 43 billion cubic feet rise to 1.777 trillion cubic feet (Tcf) from 1.734 Tcf. This was 31% below the 2.572 Tcf figure posted last year at the same time and 6% below the five-year average of 1.895 Tcf. The injection should see an increase in the coming weeks due to coal displacement.

Storage levels are likely to be unaffected by the weather at least for the coming week as the National Weather Service's forecast for the week anticipates normal temperatures in the Northeast. The forecast is anticipating cooler-than-normal temperatures in the Midwest and Gulf Coast, but they are unlikely to fall enough to cause a sizable increase in heating demand. There could be an increase in cooling demand from the West Coast, which is expected to experience much warmer-than-normal temperatures for this time of year in certain sections of the region.

PROCESSING TRENDS | An Inside Look

Bentek: Crude/Condensate Production Could Face Headwinds

BY **FRANK NIETO** | EDITOR, MIDSTREAM MONITOR,
MIDSTREAMBUSINESS.COM

The North American liquids market growth is fast becoming the Energizer bunny of energy: it keeps going and going and going ...

According to Anthony Scott, manager of energy analysis at Bentek Energy, oil production from the U.S. and Canada has increased 35% in the past three years from 8 million barrels (bbl.) per day to more than 11 million bbl. per day. As large as this figure is, the company anticipates it growing even more with another 35% increase expected by 2018.

While speaking at a recent webinar hosted by Wells Fargo Securities, Scott noted that a “significant” amount of this production is comprised of light crude and condensates from the Eagle Ford shale.

Light, sweet crude imports have decreased more than 50% since 2010, and Scott said that the level of imports should disappear entirely by the end of this year. Eventually crude and condensate production could exceed demand, similar to how natural gas production has risen above demand levels. However, Bentek anticipates that in the shortterm, domestic production will displace imports and in the longterm, there should be enough capacity through projects that will address constraints.

“We expect that the severity of the supply-and-demand imbalance will largely hinge on the demand side and how quickly the market can adjust for the glut of light crude,” Wells Fargo said in a research note summarizing the webinar.

Since much of this production is light crude, it presents a significant problem for its domestic absorption due to the fact that most North American refineries are configured to handle heavier crude variants. Until these facilities are reconfigured, the market will continue to be somewhat stagnant. Further complicating the matter is that unlike with natural gas and natural gas liquids, crude oil is illegal to export from the United States.

However, the export issue won't be as much of a problem for condensates, which will also benefit from increased demand from their heavier variants. Scott stated that condensate produced in plays such as the Eagle Ford will be under less price pressure due

to access to the Gulf Coast, while plays such as the Utica will face more pressure since there is less access to end-use markets.

“We are not saying it will be a smooth ride as the market finds balance, but we believe the market has a way of sorting out these issues and E&P operators are not without options in finding a home for their production at an economic price,” according to Wells Fargo.

Kinder Morgan Completes Copano Acquisition

BUSINESS WIRE

Kinder Morgan Energy Partners, L.P. closed its previously announced acquisition of Houston-based Copano Energy, LLC. KMP has acquired all of Copano's outstanding units for a total purchase price of approximately \$5 billion, including the assumption of debt. The transaction, which was approved by the Copano unitholders on April 30 (with more than 99% of the units that voted voting in favor of the transaction) and previously by the boards of directors of both companies, is a 100% unit-for-unit transaction with an exchange ratio of .4563 KMP units per Copano unit.

“We are delighted to complete this transaction, which will enable us to significantly expand our midstream services footprint and offer a wider array of services to our customers,” KMP chairman and chief executive Richard D. Kinder said in a release. “We will now pursue incremental development in the Eagle Ford Shale play in South Texas, and gain entry into the Barnett Shale Combo in North Texas and the Mississippi Lime and Woodford shales in Oklahoma. The transaction is expected to be modestly accretive to KMP in 2013, given the partial year, and about \$0.10 per unit accretive for at least the next five years beginning in 2014.”

Enbridge To Build East Texas Processing Plant

Enbridge Energy Partners, LP plans to construct a 150 million-cubic-foot-(MMcf)-per-day cryogenic natural gas processing plant near Beckville in Panola County, Texas. The addition of the Beckville plant will expand the Partnership's processing capac-

PROCESSING TRENDS | An Inside Look

ity to approximately 820 MMcf per day in the Cotton Valley and Haynesville shale regions.

The cost of the East Texas Beckville Plant Project is estimated at \$140 million. The plant, to be located in the heart of the productive rich gas Cotton Valley Play, will interconnect with existing natural gas liquids (NGL) infrastructure in the area.

“The Cotton Valley Play is an active natural gas drilling region, and the Beckville Plant Project integrates nicely with our existing and extensive East Texas gathering and gas processing system. This new plant will offer incremental processing capacity for existing and future customers in the 10-county Cotton Valley Play,” Mark Maki, president of the Partnership, said in a release. “The project is consistent with the Partnership’s goal of strengthening our core gas assets and delivering accretive growth.”

Construction of the East Texas Beckville Plant and associated facilities is anticipated to begin in late 2013, with in-service by early 2015.

ETP, ETE Simplify Structures Through Two Transactions

BUSINESS WIRE

Energy Transfer Partners, L.P. and Energy Transfer Equity, L.P. announced the closing of two major transactions, executing on their commitment to simplify their structures and optimize their asset portfolios.

Southern Union Gathering Company to Regency Energy Partners

Southern Union Company (Southern Union), an affiliate of ETE and ETP, closed on its previously announced agreement to contribute Southern Union Gathering Company, LLC, the owner of Southern Union Gas Services, Ltd. (SUGS), to Regency Energy Partners LP (NYSE: RGP) in exchange for \$1.5 billion of cash and Regency equity. The transaction includes a 5,600-mile gathering system in West Texas and New Mexico and approximately 500 million cubic feet per day of processing and treating facilities.

ETP Acquires ETE’s Interest in ETP Holdco

ETP closed on its previously announced agreement to acquire ETE’s 60% interest in ETP Holdco Corp. for \$3.75 billion of cash and ETP equity. ETP Holdco is an entity formed by ETP and ETE in 2012 to own the equity interests in Southern Union and Sunoco, Inc. With the closing of this acquisition, ETP now owns 100% of ETP Holdco.

The contribution of SUGS to Regency and ETP’s acquisition of ETE’s interest in ETP Holdco represent important steps in executing on ETE’s and ETP’s commitment to simplify their structures and optimize their asset portfolios. These completed transactions follow the December announcement by ETE and ETP that Southern Union’s local distribution companies (LDCs), Missouri Gas Energy and New England Gas Company, would be sold. The sale of the LDCs is expected to close in the third quarter of 2013.

Rush To Improve Shale-Related Midstream Infrastructure

BY KRISTIE SOTOLONGO | HART ENERGY

Infrastructure continues to improve in the Mississippi Lime formation with numerous expansion projects in progress throughout the play in western Oklahoma, north-central Oklahoma and south-central Kansas.

And while U.S. Midcontinent plays such as the “Miss Lime” offer a vast amount of existing oil and natural gas infrastructure and assets with an identifiable upside, pipeline and plant-capacity limitations still exist.

With production only expected to increase from the Miss Lime, Granite Wash, Cana Woodford and other booming plays in the region, it is clear that significant infrastructure investments will be required to drive the upgrading and building of new gathering systems, processing plants and fractionators for gas and natural gas liquids (NGLs) and takeaway pipelines for crude oil to ensure capacity can meet projected supply.

Ensuring crude, residue gas and NGLs reach optimal markets and command the highest price at the lowest marketing cost is absolutely essential. Without that assurance, the potential for increased and faster payout for shale operators is arguably at risk.

PROCESSING TRENDS | An Inside Look



GETTING TO WORK | Speakers at Hart Energy's recent DUG Midcontinent show said that they are focusing efforts on midstream improvements in the Mississippi Lime.

That is where full-service midstream companies like Superior Pipeline Co. come in. Founded in 1996 and acquired by Unit Corp. in 2004, the Tulsa-based firm has numerous assets geographically well situated in the Mississippi Lime. Those assets include green-field plants in Kay County, Oklahoma, and Reno County, Kansas.

"For a lot of us, the key impacts of the Mississippi Lime still amount to a science project," said Bill Ward, vice president of supply and business development at Superior. "We have a unique opportunity to react fast and provide midstream services for this emerging play."

Speaking at Hart Energy's DUG Midcontinent conference here on April 23, Ward said his company offers producers a "modular concept" or "staged" approach to construction projects by designing systems that can be scaled-up for future growth.

The event panel highlighted midstream legacy infrastructure and new projects.

Referencing a 50 million-cubic-foot (MMcf) per-day Bellmon plant in Kay County, Ward said key challenges for producers typically include start-up capital, volume forecasts and profiles, timelines, gas composition, product takeaway capacity, lead time for expansion and product pricing.

"In the development phase, we prefer to secure an anchor tenant to build from the core, design a system for scale-up for future growth, and we offer rapid deployment of manpower and inventory plants," he said. "Initial refrigeration processing is required for start-up, and cryogenic processing and piping is installed for future growth."

Additional services include constructing large-diameter piping systems (steel or poly pipe) to provide low-pressure gas gathering,

establishing right-of-way with dual-line rights and adding locations for centralized compression as required, Ward said.

"We feel this is an exciting new trend for not only the producer sector but also pipeliners," he added.

A few of the larger players in Miss Lime include Apache Corp., Chesapeake Energy, SandRidge, EOG Resources, Devon Energy and Range Resources, with SandRidge being the biggest acreage holder.

Although the Miss Lime is still in the "discovery" stage, critical efficiencies and optimization techniques are taking hold and as evidenced by state oil production data. Other Oklahoma players in addition to Superior are indeed moving the needle.

For Velocity Midstream Partners LLC, the focus is on engineering, acquiring, owning and operating efficient and cost-effective gas-gathering and transportation pipelines, compression-treating and processing assets in Louisiana, Oklahoma and Texas.

"Ironically, although we're also based here in Tulsa, all of the projects we've been involved with to date have been in Eagle Ford in South Texas and none yet in Oklahoma," said Rick Wilkerson, Velocity Midstream president and chief executive.

"Historically, the wellhead was trucked to pipe or a refinery. The Midcontinent is fairly well-piped, so the focus should be on gathering, intermediate pipes and other transport options in order to reduce trucking costs which can be exorbitant," Wilkerson said. "The economics work beautifully as long as there are the proper IPs [initial productions], EURs [estimated ultimate recoveries] and such."

M3 Midstream's Scio Fractionator To Come Online This Summer

M3 Midstream LLC announced that it is on track to complete the first phase of construction of its 90,000 barrel (bbl.) per day Scio, Ohio fractionation plant this summer.

The facility is part of the company's more than \$1 billion Utica East Ohio system, which will also include the 600 million cubic feet per day Kensington and Leesville cryogenic natural gas processing plants.

The Scio plant will also include a rail-loading facility serviced by the Ohio Central Railroad that will have the capacity to transport 10,000 bbl. of natural gas liquids per year.

PIPELINES & TRANSPORTATION | Developments

TransCanada Forced To Push Back Start Up Of Keystone XL Again

TransCanada Corp. announced that continued delays on receiving a Presidential permit for the Keystone XL pipeline has pushed back an expected start time for the project to the second-half of 2015. The company previously anticipated beginning operations on the system in late 2014 or early 2015.

Company officials declined to say how much additional capital would be required to complete the project, which was previously stated to cost approximately \$5.3 billion, but Russ Girling, chief executive of TransCanada's, said during the company's annual meeting that it was not "inexpensive to [maintain] a project with this of delays."

U.S. officials from both the State Department and the Obama administration have stated a final decision is expected sometime this year on the project, which will transport crude from the Alberta tar sands to the Gulf Coast of Texas. The State Department recently released an environmental assessment that stated the pipeline would not adversely impact the environment.

The project unexpectedly became a political flashpoint as environmentalists put pressure on President Obama to block the pipeline even after TransCanada submitted a plan that would re-route the pipeline to avoid environmentally sensitive areas in Nebraska. Thus, to many in the energy industry, this continued opposition has become more of a referendum on the oil industry itself rather than a fight against a single project.

Savage To Offer Crude-by-Rail Services For Utah Terminals

Salt Lake City-based supply chain management company Savage Services announced that it's offering expanded services at its terminals in Salt Lake City and Price, Utah, including crude-by-rail transloading services and associated car storage on a manifest basis.

The terminals will provide Uinta Basin crude—bound for key refinery markets—access to rail transportation, according to an announcement from Savage.

The Price terminal is the first facility in the area to offer crude-by-rail origination services on the Union Pacific Railroad, the announce-

ment noted. With Savage Bingham & Garfield in Salt Lake City, these terminals will have a 9,000 barrel-per-day transloading capacity.

Kirk Aubry, Savage president and chief operating officer, said in a statement that oil producers in the Uinta Basin need to get their crude to market and the lack of petroleum transloading in the area led the company to apply its crude-by-rail experience to the Savage terminals.

The Price and Salt Lake City terminals "will be fully operational for manifest services" starting in May, "and as market demand increases, unit train capacity and crude tank storage will be considered.

"The transloading services and rail line connections offered at these terminals provide crude coming from the Uinta Basin the flexibility to be delivered to the East Coast, West Coast and Gulf Coast refinery markets. These Savage terminals are also positioned to meet the growing needs of inbound or outbound oilfield materials, as customer needs dictate," according to Savage.

SemGroup To Acquire Mississippi Lime Processing, Gathering Assets

SemGroup Corp. executed a definitive agreement to acquire the equity interests of Mid-America Midstream Gas Services, LLC, a wholly owned subsidiary of Chesapeake Energy Corp., which is the owner of gas gathering and processing assets in the Mississippi Lime play for \$300 million in cash. The transaction is expected to close by the third quarter of 2013 and is subject to certain regulatory approvals and closing conditions.

The acquisition includes 200 miles of gathering pipeline; the 200 million-cubic-feet-(MMcf) per day Rose Valley I cryogenic processing plant, which is expected to be operational the first quarter 2014; the 200 MMcf-per-day Rose Valley II cryogenic processing plant that is expected to be operational first quarter 2016; approximately 540,000 net acre dedication in the core of the Mississippi Lime play, supported by a recently announced joint venture between Chesapeake Energy and Sinopec International Petroleum Exploration and Production Corp.; and a 20-year, 100% fee-based gas gathering and processing agreement with Chesapeake Energy.

PIPELINES & TRANSPORTATION | Developments

“We are very excited about the acquisition of these key assets. These assets are positioned for exceptional growth and will significantly increase our strategic position in the Mississippi Lime play,” Norm Szydlowski, president and chief executive of SemGroup said in a release. “This purchase expands our scale in highly attractive, liquids-rich areas with strong producer activity and organic growth opportunities, while adding to our future inventory of drop down assets for Rose Rock Midstream.”

Rose Valley plants I and II require approximately \$125 million of additional capital expenditures for completion, as well as additional capital related to future well connects. Combined with our existing facilities, SemGroup will have a total processing capacity of 600 MMcf per day in Northern Oklahoma and with approximately 655,000 net acre dedications within the core of the Mississippi Lime play, opportunity to further grow as production increases.

SemGroup will fund the acquisition under existing committed credit facilities. LCT Capital, LLC and Citi acted as financial advisors to SemGroup.



DECLINE | The majority of the public opposes LNG exports, according to a UT Energy Poll.

has received approval to export to non-Free Trade Agreement countries. It will be the first LNG export facility built since the 1960s.

A large percentage of people think domestic natural gas production creates jobs, provides energy security and boosts manufacturing. Those polled ranked natural gas costs least high, followed by electricity, heating oil and gasoline.

However, the Center for Liquefied Natural Gas (CLNG) notes that each \$1 billion of LNG sold creates 6,000 construction and manufacturing jobs. Selling some of the United States' natural gas would also reduce the trade deficit by billions. And a single LNG terminal would generate more than \$10 million annually in federal, state and local tax revenues.

Bill Cooper, president of CLNG, wrote to the Department of Energy that the overwhelming weight of evidence from export applicants shows that the United States has an abundance of natural gas supply, “which is more than sufficient to meet the growing domestic demands, including electric power generation, manufacturing and industrial, commercial and residential, and still support LNG exports.

“There have been no studies at all introduced to the contrary in any of the proceedings,” he said.

The poll also found that hydraulic fracturing continues to be a touchy subject with support slipping. About 45% of respondents familiar with hydraulic fracturing support using it for fossil fuel extraction down from 48% a year ago. The practice is opposed by 41%.

[READ THE FULL ARTICLE ONLINE](#)

Poll: Four Out Of Ten Oppose Natural Gas Exports

BY **DARREN BARBEE** | HART ENERGY

As the natural gas industry invests billions of dollars for planned export facilities, a UT Energy Poll shows many Americans oppose shipping such resources to other countries.

A March poll by the University of Texas at Austin found 39% of respondents think natural gas should stay at home, while 28% support exports.

Hydraulic fracturing also remains a contentious matter, with opinion sharply divided. But the degree to which respondents understand the decades-old technology drives opinion on natural gas exports. The survey found that 37% of participants familiar with hydraulic fracturing were likely to support natural gas exports compared with 20% of those who are not.

About 30 applications have been filed with the government to build liquefied natural gas (LNG) facilities, Daniel Yergin, vice chairman of IHS, said on April 17. Each such facility would cost \$10 billion or more. Cheniere Energy Inc.'s Sabine Pass Liquefaction LLC

NEWS & TRENDS | Up To Date

Mont Belvieu Expansions On Schedule

Mont Belvieu is on track to complete its fractionation expansion on time, with the project set to come online later this year, according to Genscape's Natural Gas Liquids (NGL) Monitor.

Expansions include Lone Star NGL LLC's 100,000 barrel-(bbl.)-per-day Fractionator II, which is scheduled to go in service in the fourth quarter, as well as ONEOK Partners LP's 75,000 bbl.-per-day MB-2 train, set to go live in the third quarter. Additionally, Enterprise Products Partners LP's Fractionator VII and Fractionator VIII are scheduled to go into service in the fourth quarter. Each fractionator has 85,000 bbl.-per-day capacity.

First to come online this year will be a 100,000 bbl.-per-day Targa Resources Corp. subsidiary train, which is set to go online this quarter. This is all according to Genscape, which collects energy market fundamentals and monitors more than half of Mont Belvieu's fractionation capacity.

"By covering 60% of fractionation by capacity at Mont Belvieu, Genscape is able to provide customers with a comprehensive early warning system for operational upsets," Jacob Eubank, a Genscape data integrity oil analyst, said in a public statement. "Having insight into events that cause ripples throughout the entire petrochemical feedstock complex and affect olefin price changes is a distinct market advantage."

Aquatech Opens New Marcellus Water Treatment Plant

Aquatech opened its central water treatment facility in Tioga County, Pennsylvania. Local governmental officials Erick J. Coolidge, Tioga County commissioner, and Diana Barnes, superintendent of Northern Tioga School District, joined John L. Augustine III, community outreach manager of the Marcellus Shale Coalition, and Aquatech executives in the ceremonies that included brief presentations, a ribbon cutting and plant tours.

Devesh Mittal, vice president and general manager of Aquatech's shale gas division, said in a release, "Aquatech is committed to delivering added value to our customers through innovative

solutions, developed by leveraging our vast experience and ongoing research & development in water treatment technologies. Our Tioga facility clearly demonstrates this commitment by bringing to regional shale gas operators a comprehensive portfolio of services that offers a cost sustainable solution for their water treatment needs."

The Tioga plant utilizes Aquatech's MoSuite set of technologies to deliver a menu of wastewater treatment and recycle services. MoSuite is an effective combination of MoTreat and MoVap process units, a pretreatment and distillation evaporator specifically designed to treat drill fluids, frac flowback, production brine and other wastewaters from exploration and production of conventional and unconventional oil and gas. The suite of processing units delivers a tiered menu of services including filtration, disinfection, solids handling, pretreatment and evaporation concentration.

Uganda To Build New Oil Refinery

Uganda's government and an international trio including the China National Offshore Oil Corp. (CNOOC), France-based Total and London-based Tullow Oil has agreed to build a \$4.27 billion oil refinery and export pipeline in the country—essentially ending a two-year gridlock that has seen commercial oil production stalled Uganda's western border, according to a report from *The EastAfrican*.

"We have wasted too much time," Ugandan President Yoweri Museveni was quoted as saying in a report from online news service *Uganda Picks*. "We are now with the issue of oil for seven years. We need to make our final decisions."

The agreement settles a long-drawn-out debate over how Uganda would develop its estimated 3.5 million barrels of new-found oil reserves, according to *Uganda Picks*.

The two parties haven't decided on oil production targets as a final plan is still under negotiation, but a decision is expected in the next few weeks, *The EastAfrican* reported.

The Ugandan government favors extracting smaller volumes of resource over a period of time, delaying depletion while enabling macroeconomic management of revenues, according to *The EastAfrican*.

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SNAPSHOT | Industry Insight

In First Place: An Interview With Cheniere's Charif Souki

BY PAUL HART | EDITOR, MIDSTREAM BUSINESS



OPEN MARKET SUPPORTER |

Cheniere's Souki contends that the market dictate what fuels are favored and where they will be sent.

terminal outside Corpus Christi, Texas. Charif Souki, Cheniere's co-founder and chief executive, visits with us and discusses the future of Cheniere and the LNG business.

MIDSTREAM | Unconventional natural gas has transformed the U.S. energy business, turning the future from gas importer to gas exporter. You've been involved in both businesses. How has Cheniere adapted?

SOUKI | Painfully! We developed the white elephant [LNG imports] of the past decade. When we finally brought the plant on in 2008, it had become questionable as to whether it would be needed as an import facility, although a year earlier, in 2007, it was still a very popular idea. Then by 2009, it became clear that it wouldn't be needed.

So we had to adapt. We had a fragile capital structure and in 2009, toward the middle of the year, we started seriously looking at liquefaction. We had all these existing facilities, storage and docking. Would it make sense? Would the numbers support it?

We started doing our homework. By the middle of 2010, we became convinced that it was a good idea. We announced the project and the rest is history. It took a lot of work to start answer-

The gap between natural gas prices in North America and elsewhere has created the potential for a new U.S. industry—liquefied natural gas (LNG) exports. But getting in the LNG game has high hurdles. Cheniere is the first organization to accomplish those goals. Construction is under way on its first liquefaction plant—adjacent to a little-used gas import terminal—with a late 2015 start-up date. Meanwhile, Cheniere has permitting under way for a second liquefaction

ing all the questions that we needed to answer before we knew whether we had a valid business plan for exports or not.

MIDSTREAM | Cheniere faced significant hurdles in gaining regulatory approval for the project, not only export permits, but environmental permits and many other reviews. How did you manage this complex permitting process?

SOUKI | I don't think of permitting as hurdles. It is a complex process but it's very visible, and it's very transparent. I've said this many times and I stand by it: I have not met a civil servant yet who doesn't want to get a project permitted. So if you treat them right, and if you treat them with respect, and if you don't fudge the truth, and if you accept that there are things, together, we don't know—both the regulator and ourselves—you work through in good faith. It is not a big problem.

MIDSTREAM | Building a liquefaction plant the size of the one you have planned in Louisiana (18 million tons per year) is a massive operation. What has been the biggest challenge? Is the project on schedule for startup in 2015?

SOUKI | First, yes, the project is on schedule for startup in 2015. I don't think there's one big challenge. There are a lot of reasonable challenges that you have to address simultaneously. You have to address the regulatory process. You have to address the construction risk—and here we are very fortunate to have Bechtel as the general contractor. They have built the biggest portion of liquefaction facilities around the world, so they're an extremely good partner to have in our camp.

Then you have to handle the commercial side and make sure that your customers are happy and accept your business model. And you have to handle the politics, both domestically and internationally. Given the size of the project, we have to ramp-up with a significant number of people. We need to continue to attract quality people to the company.

MIDSTREAM | How would you reply to critics of LNG exports?

SOUKI | First, the most significant critics haven't expressed an opinion, all they say is we ought to go more slowly. Well, everybody's been looking at LNG exports for years now, and all they have come up with are different studies. No one has been able to demonstrate that LNG exports would not be beneficial for the U.S. and other countries.

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LEAD STORY | From The Front

plans to expand their U.S. manufacturing operations. Since 2009, BASF has invested close to \$6 billion in North America, including a new chemical plant now under construction in Louisiana,” he said.

Of course, a big portion of this story coming to fruition depends on how much LNG will be allowed to be exported and where these volumes can be shipped. Additionally, unconventional natural gas production faces various political, regulatory and policy challenges that could hinder forecasts.

“We would be wise to guard against irrational exuberance, especially in light of mankind’s track record at foretelling the future. The unanticipated—in some form or fashion—may be the most predictable thing of all,” Farrell said.

It is for this reason that Dominion and other utilities have shied away from an “all-in” approach to natural gas and instead leaned towards an “all-of-the-above” approach that uses a variety of energy resources.

Farrell noted that while natural gas is the cleanest hydrocarbon, it has a history of price volatility. Coal is an abundant “work horse” fuel, but it has heavy environmental baggage. Nuclear energy has low costs and is carbon-free, but it has high capital costs and long license delays.

As for renewables, he noted that advocates fail to recognize the necessary large real estate footprint these projects require. In addition, they are unpredictable and are located in remote places, which necessitate new transmission lines to reach consumers.

“For Dominion to replace its current generation fleet in Virginia, we would have to use 15% of the land mass of the entire state—and a much larger percentage of the usable land—not including all of the transmission lines, towers and substations that would have to

be built. Ever hear that indisputable fact from those who advocate going all-in on renewable energy?” he said.

“The truth is we do not have the luxury of rejecting any of our fuel options. All of them have their benefits—and drawbacks. And none of them, alone, can meet rising electricity needs at the scale we require.

“The lesson is clear: It is too risky to rely too heavily on any one fuel source to meet large-scale electricity needs. Government attempts to intervene and select a preferred fuel type have never worked. Times change, markets change, political agendas change. Fuel diversity is always the best policy,” Farrell said.

Fear over LNG exports overstated

While opponents of LNG exports claim that it could hurt U.S. manufacturers and petrochemical producers, Farrell said that this isn’t the case. “LNG exports will create incentives for American companies to drill for more natural gas, create more economic growth, more jobs and more government revenues while at the same time boosting international stability, supporting our country’s geopolitical interests and reducing our trade deficits.”

He noted that opponents of exporting LNG, including energy-intensive industrial users, have claimed that it would raise the price of natural gas, harm the economy and hinder the manufacturing renaissance.

They are not completely wrong that gas prices will increase, but most studies say these increases will be modest, according to Farrell. “Exporting LNG is likely to increase domestic gas production as supplies expand and contract. If more markets are available to their sale, there will be more demand, more investment and even more production. In other words, more trade brings more supply to market and with it, more jobs and economic growth.”

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