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HARTENERGY

Chesapeake Energy Refocusing On Core

Chesapeake Energy Corp. take a large step out of the midstream

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

The second quarter of 2012 saw Chesapeake Energy Corp. take a large step out of the midstream through the \$2 billion sale of Chesapeake Midstream Partners (now Access Midstream Partners) MLP to Global Infrastructure Partners (GIP). During its recent conference call to discuss second-quarter (2Q) earnings, the company stated that it anticipates fully extracting itself from the midstream through the sale of its Chesapeake Midstream Development (CMD) in 3Q.

These sales, along with its continuing sale of interest in producing assets, is aimed at improving the company's liquidity and focusing its efforts on its core strategy of unconventional gas, liquids and oil production.

"We believe Chesapeake's performance can improve even further from this very high level [of production] as we progress from operations designed for new asset identification and capture to a more manufacturing-like operations approach designed to maximize efficiency and returns as we shift more fully into harvest mode. We are now able to increasingly focus on developing just the core of our core



areas of our plays," Aubrey McClendon, the company's chief executive, said during the conference call.

Nick Dell-Osso, Chesapeake Energy's CFO, said that the sale of its midstream assets also lessened the company's CapEx spending forecast for 2013 by more than \$2.1 billion while enabling the company to retire the \$4 billion term loan that was put in place in May. The remaining proceeds from these sales will be used to pay any outstanding balances on its \$4 billion corporate revolver, which was 100% undrawn as of June 30.

"Our goal is to exit 2012 with no more than \$9.5 billion in longterm debt, which implies having nothing drawn under our \$4 billion corporate revolving credit facility...[W]e intend to

complete our 2013 projected asset sales of \$4.25 billion

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HIGHLIGHTS FROM TODAY'S EDITION



FRANK NIETO Editor, Midstream Monitor & MidstreamBusiness.com fnieto@hartenergy.com

PROCESSING TRENDS Necessary sales

Kinder Morgan completed \$1.8B in asset sales in order to complete its El Paso acquisition. **PAGE 5**

SNAPSHOT

LNG exports may struggle A new study claims that there are economic headwinds facing LNG exporters. PAGE 11



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NEWS & TRENDS Wyoming gas storage services start

Ryckman Creek Resources opened a storage hub this week near the Opal hub. PAGE 9



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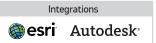
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NGL PRICES & FRAC SPREAD | Week in Review

Greater Crude Prices Help Improve Heavy NGL Prices

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

Heavy NGL prices posted gains at both hubs this week as crude oil prices approached \$100 per barrel (/bbl) for much of the week, due to fears from unrest in the Middle East.

Butane and its sister product, isobutane, experienced the greatest improvements at both hubs as refiners begin to focus on making winter-grade gasoline. The Conway price for butane rose 15% to \$1.40 per gallon (/gal), its highest price since it was \$1.41/gal the week of

CURRENT FRAC SPREAD (CENTS/GAL)							
August 24, 2012	Conway	Change from Start of Week	Mont Belvieu	Start of Week			
Ethane	20.20		33.23				
Shrink	17.97		18.23				
Margin	2.23	211.18%	15.00	-12.85%			
Propane	81.26		92.96				
Shrink	24.82		25.19				
Margin	56.44	13.74%	67.77	-0.94%			
Normal Butane	140.30		152.56				
Shrink	28.10		28.52				
Margin	112.20	20.01%	124.04	9.64%			
Iso-Butane	185.85		166.98				
Shrink	26.99		27.39				
Margin	158.86	19.54%	139.59	9.41%			
Pentane+	203.78		219.18				
Shrink	30.05		30.50				
Margin	173.73	2.23%	188.68	6.59%			
NGL \$/Bbl	39.15	7.82%	43.52	2.46%			
Shrink	9.90		10.05				
Margin	29.25	11.37%	33.48	3.93%			
Gas (\$/mmBtu)	2.71	-1.45%	2.75	-2.14%			
Gross Bbl Margin (in cents/gal)	66.02	11.80%	76.55	3.55%			
M	IGL Value in \$/	mmBtu					
Ethane	1.11	6.60%	1.83	-7.28%			
Propane	2.82	8.62%	3.23	-1.26%			
Normal Butane	1.52	14.99%	1.65	7.23%			
Iso-Butane	1.16	15.95%	1.04	7.33%			
Pentane+	2.63	1.67%	2.83	5.28%			
Total Barrel Valuein \$/mmbtu	9.23	8.11%	10.57	1.33%			
Margin	6.52	12.65%	7.82	2.61%			

NGL PRICES						
Mont Belvieu	Eth	Pro	Norm	lso	Pen+	NGL Bbl
August 15 - 21 '12	33.23	92.96	152.56	166.98	219.18	\$43.52
August 8 - 14 '12	35.84	94.15	142.28	155.57	208.18	\$42.48
August 1 - 7 '12	35.38	88.24	132.14	151.98	197.32	\$40.34
July 25 - 31, '12	36.48	88.98	134.88	161.02	189.92	\$40.48
July '12	33.11	87.19	131.77	150.81	186.00	\$39.04
June '12	28.19	78.11	127.86	141.05	169.28	\$35.60
2nd Qtr '12	37.00	97.80	160.76	175.08	207.57	\$44.54
1st Qtr '12	53.93	125.90	192.36	204.32	238.95	\$55.05
4th Qtr '11	84.49	144.13	188.16	227.18	224.44	\$61.34
3rd Qtr '11	76.03	153.87	188.27	208.52	237.59	\$61.59
August 17 - 23, '11	69.35	153.18	185.28	205.98	226.95	\$59.53
Conway, Group 140	Eth	Pro	Norm	lso	Pen+	NGL Bbl
August 15 - 21 '12	20.20	81.26	140.30	185.85	203.78	\$39.15
August 8 - 14 '12	18.95	74.81	122.01	160.28	200.44	\$36.31
August 1 - 7 '12	15.56	61.84	107.82	155.02	190.78	\$32.67
July 25 - 31, '12	13.76	58.80	110.10	150.63	187.58	\$31.80
July '12	7.80	57.01	103.02	145.79	183.28	\$29.81
June '12	7.20	53.58	106.56	131.70	173.06	\$28.42
2nd Qtr '12	11.18	72.63	135.80	161.38	203.31	\$35.72
1st Qtr '12	26.93	103.34	168.65	184.75	227.16	\$45.92
4th Qtr '11	34.29	129.43	160.82	204.27	196.08	\$48.23
3rd Qtr '11	46.69	143.07	166.30	199.68	210.98	\$53.06
August 17 - 23, '11	40.40	144.78	160.90	202.00	196.08	\$51.00

(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. Source: Frank Nieto

May 9. The Mont Belvieu price rose 7% to \$1.53/gal, the highest price at the hub since the week of May 23 when it was \$1.54/gal.

Conway isobutane prices were greater than their Mont Belvieu counterparts for the third straight week. The Conway price rose 16% to \$1.86/gal while the Mont Belvieu price rose 7% to \$1.67/ gal. These were the highest prices at the hubs since May.

Although C5+ has the closet correlation to crude oil prices, they experienced the smallest gains of any





NGL PRICES & FRAC SPREAD | Week in Review

Continued from heavy NGL at both hubs this week. The Mont Belvieu price rose 5% to \$2.19/gal while the Conway price rose 2% to \$2.04/gal.

As heavy NGL prices improved at both hubs, light NGL prices moved in opposite directions between the two hubs with the Conway prices improving and the Mont Belvieu prices dropping.

The Mont Belvieu ethane price dropped 7% to 33¢/gal, although the price was stable throughout the week following a steady drop last week as the market reacted to fears of oversupply along with inventory sell-offs by several petrochemical companies. This was the lowest price at the hub in five weeks.

While Mont Belvieu prices were sluggish, the Conway price continued its rebound from months of scheduled ethane cracker outages. In addition, prices have been supported by increased transportation capacity out of the hub on the Cochin and MAPL pipelines along with ethane rejection in the Mid-Continent. The price rose 7% to 20¢/gal, its highest price since the week of March

KEY NORTH AMERICAN HUB PRICES				
2:30 PM CST / August 23, 2012				
Gas Hub Name	Current Price			
Carthage, TX	2.71			
Katy Hub, TX	2.75			
Waha Hub, TX	2.68			
Henry Hub, LA	2.81			
Perryville, LA	2.72			
Houston Ship Channel	2.76			
Agua Dulce, TX	1.88			
Opal Hub, Wyo.	2.70			
Blance Hub, NM	2.66			
Cheyenne Hub, Wyo.	2.65			
Chicago Hub	2.95			
Ellisburg NE Hub	2.92			
New York Hub	2.90			
AECO, Alberta	2.19			

21 when it was 26¢/gal.

Since Conway ethane trades as an E-P mix, Conway propane prices benefited from improved ethane prices at the hub. Propane prices rose 9% to 81¢/gal in the Mid-Continent. This was their highest price since the week of April 25 when they were 85¢/ gal. The Mont Belvieu propane price fell 1% to 93¢/gal, which remained the hub's second highest price in 15 weeks.

Source: Bloomberg

Frac spread margins were largely improved

at both hubs this week due to a 2% drop in natural gas prices at Conway and Mont Belvieu. Conway ethane had by far the largest increase in margin of any NGL as it rose 200% from last week. Conway butane and isobutane margins had the second largest

RESIN PRICES – MARKET UPDATE – AUGUST 23, 2012						
TOTAL OFFERS: 18,964,424 lbs		SPO	DT	CONTRACT		
Resin	Total lbs	Low	High	Bid	Offer	
LDPE - Film	2,492,944	0.68	0.75	0.68	0.72	
HDPE - Inj	2,418,668	0.67	0.69	0.63	0.67	
PP Copolymer - Inj	2,415,472	0.62	0.75	0.64	0.68	
HDPE - Blow Mold	2,341,036	0.65	0.68	0.63	0.67	
LLDPE - Film	2,095,404	0.68	0.72	0.63	0.67	
PP Homopolymer - Inj	1,977,748	0.65	0.66	0.62	0.66	
HMWPE - Film	1,085,472	0.68	0.7	0.65	0.69	
LDPE - Inj	1,071,840	0.7	0.71	0.68	0.72	
LLDPE - Inj	554,000	0.62	0.71	0.65	0.69	
GPPS	380,000	0.93	0.93	0.86	0.91	
HIPS	380,000	1.04	1.04	0.98	1.03	

Source: Plastics Exchange - www.theplasticsexchange.com

increase at 20% each. Butane had the largest increase in margin at Mont Belvieu as it rose 10% from the previous week.

The Conway theoretical NGL barrel price rose 8% to \$39.12/ bbl with an 11% gain in margin to \$29.25/bbl. The Mont Belvieu NGL barrel improved 3% to \$43.52/bbl with a 4% gain in margin to \$33.48/bbl.

The most profitable NGL to make at both hubs remained C5+ at \$1.74/gal at Conway and \$1.89/gal at Mont Belvieu. This was followed, in order, by isobutane at \$1.59/gal at Conway and \$1.40/gal at Mont Belvieu; butane at \$1.12/gal at Conway and \$1.24/gal at Mont Belveiu; propane at 56¢/gal at Conway and 68¢/gal at Mont Belvieu; and ethane at 2¢/gal at Conway and 15¢/gal at Mont Belvieu.

As the natural gas injection season begins to come to a close, storage growth continued to remain low thanks to increased demand from power generation along with cooling demand. According to the Energy Information Administration, storage levels rose 47 billion cubic feet to 3.308 trillion cubic feet (Tcf) from 3.261 Tcf last week. This was 15% greater than the 2.885 Tcf storage level reported last year at the same time and 12% greater than the five-year average of 2.951 Tcf.

Cooling demand should remain high in the coming week according to the forecast from the National Weather Service. The service anticipates hotter weather throughout much of the country. This warmer weather is expected to extend from the Southwest through the Midwest into the Northeast. Cooler temperatures are expected along the West Coast.



PROCESSING TRENDS | An Inside Look

Kinder Morgan To Sell \$1.8B In Assets BUSINESS WIRE

Kinder Morgan Energy Partners LP (KMP) announced Monday that it has agreed to sell some of its assets to Tallgrass Energy Partners LP (Tallgrass) for approximately \$1.8 billion in cash, in order to gain regulatory approval for its acquisition of El Paso Corporation.

KMP announced it intends to sell Kinder Morgan Interstate Gas Transmission (KMIGT), Trailblazer Pipeline Company, the Casper-Douglas natural gas processing and West Frenchie Draw treating facilities in Wyoming and the company's 50% interest in the Rockies Express Pipeline (REX) to Tallgrass. The transaction is expected to close in the fourth quarter.

In March 2012, Kinder Morgan, Inc. (NYSE: KMI) announced that it had reached an agreement with the Federal Trade Commission to sell certain KMP assets in the Rockies in order to obtain regulatory approval of its acquisition of El Paso Corporation, which closed in May.

DCP Midstream Partners CEO To Retire

BUSINESS WIRE

DCP Midstream GP LLC announced August 20 that chief executive and president, Mark Borer, plans to retire at the end of 2012.

According to the company, Borer will continue as CEO and as a director on the board of directors through December 31, 2012. In addition, he will continue in an advisory role through March 2013 to ensure a smooth transition.

"I would like to thank Mark for his leadership and value creation as CEO of the partnership over the past six years," Tom O'Connor, the chairman of the board , said in a company announcement. "During his tenure as CEO, the partnership successfully executed and financed over \$2 billion of transactions and is well positioned for continued growth with an investment grade balance sheet and low cost of capital."

The board of directors has appointed Bill Waldheim president, effective September 1, 2012.



Waldheim is currently the president of the natural gas liquids, gas, and crude oil logistics business unit for DCP Midstream, LLC, a position he has held since 2011. Prior to that time, he was president of DCP Midstream, LLC's northern business unit since 2009 and was responsible for executive management of commercial and operations of assets in the Midcontinent, Rocky Mountain, Michigan and Gulf Coast regions as well as being responsible for downstream marketing of gas, NGLs and condensate.

Summit Midstream Files For \$302MM IPO

Summit Midstream Partners filed plans with the U.S. Securities office for an initial public offering to raise up to \$301.9 million in common units. The company will trade on the New York Stock Exchange under the "SMLP" symbol.

The company is headquartered in Dallas with 385 miles of gathering pipeline, 147,600 horsepower of compression and dehydration assets in the Barnett and Piceance. According to a *Reuters* report, the company plans to use part of the proceeds to repay debt.

How many units the company plans to sell, along with their cost, were not made available at this time, but the company stated that it plans to grow through strategic partnerships with producers as well as acquisitions.



PROCESSING TRENDS | An Inside Look

AltaGas Completes Blair Creek Expansion

AltaGas Ltd. (AltaGas) announced August 21 the completion of the Blair Creek, British Columbia, facility expansion, which will provide processing capacity to producers developing the liquidrich Montney resource play.

The Blair Creek expansion will add 50 million cubic feet per day. The volumes represent approximately a 5% increase in total gas processing throughput and will add \$8 to \$10 million of annual EBITDA. The expansion is underpinned by long-term contracts with three active producers in the area.

KBR To Increase Plant Capacity

KBR was awarded a general works contract for phase two construction at a raw gas processing and compression facility near Dawson Creek, British Columbia, the company announced August 22.

KBR's Canadian subsidiary, KBR Wabi, will execute construction and related site support for the expansion of the facility, increasing the existing capacity to 100 million cubic feet per day (MMcf/d). The award follows KBR's recent work for delivering piperack fabrication and module assembly for phase one of the Dawson Creek plant.

"This contract represents an opportunity for KBR to further expand its business in the rapidly increasing shale gas market in British Columbia," Karl Roberts, senior vice president, KBR Canada, said in a company statement.

Russia To Increase Oil Exports To Asia

European resistance to oil-linked gas prices will drive Russia to seek Asian export partners, predicts a new report by international business intelligence firm GlobalData.

According to the latest study, Russia is being forced to reevaluate its natural gas export strategy as the rest of Europe – the destination of 93% of the country's gas exports in 2011 – grows increasingly disillusioned with the country's pricing system.



For years, Russia and many of the other countries on the continent have been dependant on one another in a natural gas import/ export relationship, but due to a decline in gas prices on the spot market and the rising price of Russian gas, European utilities are starting to take their business elsewhere.

Russia's gas monopoly, Gazprom, has recently been forced to renegotiate its prices with some of the major European utility companies, agreeing to link 15% of export volumes to the spot market price in several deals.

The Russian firm has also offered price discounts of up to 10% to many of its customers including Italy's Eni, Edison and Sinergie Italiane, France's GDF Suez, Germany's Wingas, Slovakia's SPP and Austria's EconGas.

However, these discounts do relatively little to counter Russia's exponential gas export price increase – from \$244.44/million cubic meters (mcm) in July 2009 to \$452.16/mcm in June 2012 – prompting European firms to escalate imports of Liquefied Natural Gas (LNG) from countries in the Middle East and Africa.

Matthew Jurecky, Director of Energy Research and Consulting at GlobalData, said: "Weakened demand for natural gas during an economic crisis in the European Union has further lessened the region's appetite for oil-price linked gas from Russia.

"Europe was already open to alternative sources after enduring the political games that have threatened supply over the past few years."

Just as Europe looks to diversify its gas imports, Russia aims to ease its dependence on European gas purchases. GlobalData predicts that Russian gas exports to Asia will climb significantly before the end of the decade, from 11.8 billion cubic meters (bcm) in 2012 to 44.2 bcm by 2020. China, Japan and South Korea are expected to be Russia's primary export locations during this time period thanks to growing demand for LNG in these countries.



PIPELINES & TECHNOLOGY | Developments



THE POLARIS PIPELINE | The pipeline was placed into service this week and will transport production from the Kearl oil sands near Fort McMurray, Canada, to Edmonton.

Polaris Pipeline Begins Service

Inter Pipeline Fund (TSX: IPL.UN) announced that its Polaris pipeline system has entered commercial service for the Kearl oil sands project owned by Imperial Oil Resource Ventures Ltd. With the commencement of linefill and wet commissioning activities, Inter Pipeline is now generating cash flow under a 25-year diluent transportation agreement with Imperial. Construction of a new \$91.1 million pipeline lateral and facilities from the Polaris system to the Kearl project was completed on schedule and below budgeted cost.

Imperial has contracted for 60,000 barrels per day (b/d) of firm ship-or-pay transportation capacity on the Polaris pipeline system. Under the shipping contract, Inter Pipeline will earn approximately \$36 million of EBITDA on an annual basis for the next 25 years. Cash flow is not dependent on commodity prices or throughput levels and all operating costs flow through to Imperial. The Polaris system previously formed part of Inter Pipeline's Corridor oil sands pipeline system. With the start-up of commissioning activities, approximately \$100 million of capital has been removed from Corridor's rate base. The Polaris pipeline system is currently being expanded under a \$1 billion capital program to provide diluent service to the Christina Lake, Narrows Lake and Foster Creek projects owned by Cenovus and ConocoPhillips. Upon completion, capacity on the Polaris system is expected to increase from approximately 120,000 b/d to 820,000 b/d. Inter Pipeline has announced long-term shipping arrangements representing approximately 50% of total expansion capacity and is aggressively pursuing opportunities to attract new third party shippers to the system.

During a recent conference call to discuss Q2 earnings, Bill van Yzerloo, the company's CFO, said that Inter Pipeline Fund plans on spending more than \$2 billion to expand and integrate the Polaris and Cold Lake systems. This will entail adding more than 800 kilometers of new pipeline and installing seven new pump stations on the systems in order to create what he called "a very significant diluent and bitumen blend transportation system.

"Key to this development is a backstopping arrangement we've executed to maintain the timeline for transportation of diluent and diluted bitumen for three oil sands projects owned by Cenovus Energy and ConocoPhillips, the Foster Creek, Christina Lake and Narrows Lake projects. Volume commitments under this arrangement are expected to total [more than] 800,000 b/d of firm capacity under long-term cost-of-service type of agreements," he said.



PIPELINES & TECHNOLOGY | Developments

Mexico Plans \$8B Pipeline Expansion

The Mexican government plans to invest \$8 billion to expand the its natural gas pipeline system that could feed off the South Texas and Eagle Ford shale plays.

According to a report in the *Houston Chronicle*, the country plans to expand its 5,500-mile natural gas pipeline system and is focused on building infrastructure in central and northwest Mexican cities.

"Mexico has a unique opportunity, we have access to the world's cheapest gas," Mexican Energy Minister Jordy Herrera said of the U.S. supply in an announcement earlier this year. "This is competitiveness for the industry of our country."

Kinder Morgan and other Houston-based pipeline companies are lining up to offer their services to the Mexican government should the plan come to fruition, but these expansion plans are all dependent on the new Congress that begins September 1.

In the meantime, Mexican officials plan to award contracts to U.S. and Mexican companies in October for construction of \$3 billion worth of new pipelines from just below the Rio Grande deep into industrialized central and Northwest Mexico.

Sunoco Moves Forward On Permian Express

Sunoco Logistics Partners LP announced that it has enough binding shipping commitments to proceed with phase I of the Permian Express Pipeline.

According to an August 21 *Reuters* report, the company said it has enough shippers for the 90,000 (bbl.) per day pipeline to begin operations in the first quarter of 2013.

The pipeline will run from Wichita Falls, Texas to Sunoco's Nederland Terminal, which has over 22 million barrels of crude, petroleum products and feedstock storage capabilities. Phase II of the system will increase the flow to 150,000 bbl. per day in the third or fourth quarter of 2013.

Sunoco plans to keep the open shipping until September 6.

Alliance Pipeline Names President, CEO

Alliance Pipeline Ltd. has named Terrance Kutryk president and chief executive, the company announced August 16.

Kutryk most recently served as senior vice president, midstream and refined products with Husky Oil Operations Limited, where he was responsible for Husky's global commodity marketing, logistics and trading, storage, refining and upgrading business, pipelines, cogeneration, retail and wholesale operations, asphalt marketing, product supply and distribution and new ventures. Mr. Kutryk is also Chairman of the Board for Sultran Ltd. and Pacific Coast Terminals Company Ltd.

Kutryk will succeed Murray Birch, who retired in July and will begin his position October 1.

Alberta Calls For Safety Review Of Pipelines

Alberta, Canada, has called for a safety review of its network of oil and natural gas pipelines.

According to local reports, the Canadian province along with The Energy Resources Conservation Board (ERCB) have requested an independent third-party review of the area's pipeline integrity management, response to pipeline incidents and the safety of pipelines located near bodies of water.

Through the requested reviews, the ERCB aims to determine if regulatory requirements remain relevant and to identify areas of improvement.

All reviews are expected to be complete no later than November 30.



NEWS & TRENDS | Up To Date

Golden Pass Applies To Export LNG



EXXONMOBIL | ExxconMobil joined the growing list of companies seeking to take advantage of price differentials by exporting LNG from the U.S. to foreign markets.

Golden Pass Products LLC (Golden Pass), a joint venture by Qatar Petroleum International and ExxonMobil, has submitted an application to the U.S. Department of Energy (DOE) to export liquefied natural gas (LNG) from the Golden Pass LNG receiving terminal at Sabine Pass, Texas, the company announced August 17.

The proposed project involves construction of natural gas liquefaction and export capabilities at the existing Golden Pass LNG facility. It would have the capacity to send out approximately 15.6 million tons of LNG per year. New infrastructure required to export will be located on the existing property, which currently contains two berths for LNG tankers, five storage tanks and access to the Golden Pass pipeline. The expanded facility would then have the capability and flexibility to both import and export natural gas.

If developed, the project would represent approximately \$10 billion of investment on the Gulf Coast, generating billions of dollars of economic growth at local, state and national levels and millions of dollars in taxes to local, state and federal governments. The project would generate approximately 9,000 construction jobs over five years with peak construction employment reaching about 3,000 jobs.

The application filed with the DOE is to export natural gas to nations that have existing free trade agreements (FTA) with the United States. A similar application is planned for non-FTA countries.

New Wyoming Gas Storage Services Launched

BUSINESS WIRE

Ryckman Creek Resources, LLC, a wholly owned subsidiary of Peregrine Midstream Partners LLC, has commenced commercial gas storage services at its new high-deliverability, multi-cycle (HDMC) Ryckman Creek Gas Storage Facility in Southwestern Wyoming near the Opal Hub. Notice of Ryckman Creek's commencement of service was filed with the FERC on August 21, the date customers began injecting gas at an aggregate rate exceeding 230 MMcfd.

Ryckman Creek has interconnections with five interstate pipelines, all of which are connected to the Opal Hub, including the Questar, Ruby, Kern River, Northwest and Overthrust pipelines. Combined meter capacity is in excess of 1 Bcfd. Receipts and deliveries with Cheyenne Plains, CIG, WIC and REX can also be scheduled through the Overthrust pipeline. All interconnections are currently operational except Ruby, which is scheduled to start service in late September. Maximum Phase I injection capability is 350 MMcfd with a maximum withdrawal capability of 480 MMcfd.

Construction of the 35 Bcf facility began in late September 2011. Pad gas injections started on May 1, 2012, followed by injection and withdrawal testing during July and August to commission the facility. Ryckman Creek received final tariff approval from the FERC on July 18.

"We expect to reach a total injection rate of nearly 300 MMcfd by September," said Jeff Foutch, Peregrine's Executive Vice President and Chief Commercial Officer. "Our customers are doing mostly daily parks right now through the end of this month in anticipation of base-loading injections starting September 1 through the end of October.



NEWS & TRENDS | Up To Date



PEREGRINE MIDSTREAM PARTNERS | Peregrine began commercial operations at its Ryckman Creek Gas storage facility near the Opal hub this week.

Depending on the weather and the forward curve, we could very well see gas injections into November as well. We anticipate an active fall-winter storage season, especially since we are connected to pretty much all of the pipes coming out of Opal. We also will be holding an open season this fall for additional FSS capacity that will be available next spring."

Initial working gas capacity for Ryckman Creek's first phase is 18 Bcf for the 2012-13 gas storage season, which will increase to 25 Bcf by spring 2013 and 35 Bcf by spring 2014. A Phase II expansion would increase total working gas capacity to 50 Bcf or more depending on market demand.

Florida Natural Gas Vehicle Coalition Formed

A collection of 15 major companies have joined forces to form The Florida Natural Gas Vehicle Coalition, in an effort to secure natural gas vehicle (NGVs) funding for the Sunshine State.

TECO/Peoples Gas, Trillium CNG and Florida Natural Gas are just a few of the companies that comprise this newlyformed partnership, which is in search of grants, tax credits and other incentives for purchase of NGVs, similar to those received in Texas and several other states. "It is vital to Florida's economic future that we have a conversation about transportation, freight mobility and logistics in the next legislative session," Florida State Representative said in an August 14 announcement. "I believe that natural gas vehicle will be an all important component of that discussion."

According to FNGVC's recently released Economic Impact Study, NGV incentives could create over 10,000 jobs, \$300 million in new wages and \$1 billion in economic output over two decades.

Tundra To Increase Oil Storage Capacity

Tundra Energy Marketing, a crude oil company in the Williston Basin, is increasing capacity at its Cromer, Manitoba, oil storage terminal. The company announced August 17 that it will be increasing from 70,000 barrels capacity to 460,000 barrels.

Tundra plans to construct two 205,000 barrel storage tanks that are expected to be operational by the end of 2013.

Crude Terminal Begins Operations In Florida

The Alabama & Gulf Coast Railway (AGR), a RailAmerica Inc. (RA) property, is now serving a new crude oil-unloading terminal developed by Genesis Energy, L.P. The Walnut Hill, Fla., terminal, which started service on Monday, August 13, is designed to receive approximately 100-car unit trains of crude oil via the AGR from various shale regions in the U.S. and Canada.

After being transported in unit trains along the AGR, the crude oil will be off-loaded into fixed storage tanks and then injected into an existing Genesis Energy, L.P. pipeline for direct deliveries to one refinery customer and indirect delivery, through third-party common carriers, to multiple potential markets in the Southeast.

The partnership includes investments by RailAmerica to increase capacity on the AGR to support the anticipated growth in rail traffic to the terminal. The infrastructure investments will ensure continued support and rail capacity for other existing and growing customers in the area.



SNAPSHOT | Industry Insight

Rice Study: Future U.S. Gas Export Prices May Not Be As Great As Originally Thought

BY CAROLINE EVANS | HART ENERGY

The impact of liquid natural gas exports on domestic natural gas prices would likely not be impactful, according to a new study from Rice University's James Baker Institute for Public Policy. The paper, authored by Kenneth Medlock, the institute's Baker Fellow in Energy and Resource Economics, also predicts that the longterm volume of LNG exports would not likely be very large.

The study, "U.S. LNG Exports: Truth and Consequence," concludes that the model that has been presented to policymakers is

Gif shale opportunities in Europe and Asia, and other sources of imported pipeline and LNG supply can be brought to market, then growth in global production will put downward pressure on prices everywhere."

- Kenneth Medlock, Baker Fellow in Energy and Resource Economics, Rice University flawed because it assumes a certain volume of exports rather than recognizing that international market response will ultimately limit the amount of LNG exported.

"The question before policymakers is one of licensing a capability, not licensing a fixed volume," Medlock says. "Therefore, this issue must be viewed in the context of international trade if informed policy decisions are to be made."

As an example, Medlock points to the shutdown of all of Japan's nuclear reactors in the wake of the Fu-

kushima Daiichi disaster in 2011, causing LNG price indexes to jump markedly.

"The implication is that the price difference that currently exists in Asia and the rest of the world is at least partially the result



RICE UNIVERSITY REPORT | While U.S. producers are clamoring for a way to export LNG to more lucrative markets, this arbitrage may be short-lived, according to a Rice University report.

of short-term constraints, or transitory factors, meaning they could not be expected to persist," Medlock says. "In fact, the pre-Fukushima pricing relationship ... can be expected to re-emerge as both new LNG delivery capacity is brought online, new sources of supply are developed and, in particular, if Japan's nuclear reactors are restarted."

Furthermore, the study argues that although LNG gas prices abroad are currently high, the next three decades are not projected to be profitable for U.S. LNG exports. The study based this observation on growing competition in countries with new shale and pipeline developments, including China, Russia, Australia and Argentina.

"If shale opportunities in Europe and Asia, and other sources of imported pipeline and LNG supply can be brought to market, then growth in global production will put downward pressure on prices everywhere," Medlock says.

Medlock's advice to policymakers: "The implication for policy is simple: Market responses will ultimately limit export volumes. The hand-wringing about domestic price impacts is based largely on an incomplete assessment of what should be addressed as an international trade question."



LEAD STORY | From The Front

Page 1 to \$5 billion and finish 2013 with no incremental net debt. However, we do not expect to be dependent on the 2013 asset sale program to meet our liquidity needs," he said.

While Chesapeake Energy prepares to exit the midstream entirely, the company continued its impressive production track record as it saw natural gas production improve 25% on a year-over-year (yoy) basis and 4% from the previous quarter.

McClendon stated that the yoy improvement would have been 36% but there was a 330 million cubic feet per day (MMcf/d) curtailment during the quarter.

He also noted that the company's oil production began to take off in the quarter with NGL production also increasing strongly. "In the past 10 quarters we have increased our oil production by 201% to 80,500 barrels per day. Our natural gas liquids production growth has been very strong too, growing from 10,600 barrels in January 2010 to nearly 50,000 barrels per day in the second quarter, an increase of 370%."

Liquids Production Growth

Chesapeake Energy is now the 11th-largest liquids producer in the U.S., according to McClendon. The company's total liquids production now represents 21% of the company's total production mix and is expected to peak at 35% by 2015. "We hope by 2015 to be knocking on the door of the top-five liquids producers in the U.S."

Although this increased focus on liquids production has largely benefitted the company's earnings, Dell'Osso noted that the NGL market became more challenging in the first half of 2012, but these challenges should lessen in the coming year.

"Like many of our peers, we reported challenging NGL price realizations. However, we believe these realizations are bottoming and expect them to improve moderately for a couple of reasons. First, we currently sell 50% of our NGLs at Conway. In 2013 we will access Mont Belvieu pricing for a portion of those volumes based on new pipelines and resulting basin compression. Second, industry-wide rejection of ethane has kicked in, which should begin to ease the ethane oversupply situation and prompt a modest increase in pricing. Finally, more propane export capacity is being developed along the Gulf Coast and East Coast, which should begin to ease the supply overhang before year-end," he said.

As the company envisions a continued increase in liquids production, like much of the rest of the production industry, Chesapeake Energy is stepping away from dry-gas production due to the depressed nature of the market. It is now forecasting a 7% drop in gas production in 2013. "This will bring an end to our likely unprecedented public company record of 23 consecutive years of gas production growth, which has taken Chesapeake's gas production from 10 million cubic feet per day in 1993 to more than 300 times that level currently and in the process has helped transform the U.S. gas market," McClendon said.

He added that the company anticipates gas production to continue to decrease on a consistent basis until prices rise to levels that make returns from gas drilling competitive with returns from liquids drilling. Chesapeake is forecasting gas production to decrease 14% by the end of 2013 from its peak level of 3.4 billion cubic feet per day (Bcf/d) in 2012.

McClendon declined to provide a forecast for when gas prices might turnaround, but felt that the market would improve in the coming year. He stated that as the gas storage overhang decreases by an average of 2 to 4 Bcf/d each week and factoring in a normalized winter season that the U.S. gas market could reverse its 900 Bcf yoy storage surplus established in April 2012 and reach a 900 Bcf storage deficit in April 2013.

"As a result of this potential storage reversal, rising demand for natural gas across the economy, and likely production declines from many gas producers as they continue shifting their CapEx towards more profitable liquids production, we expect gas markets to look very different during the next few years than they have looked during the past six months," he said.

Contact Information:

FRANK NIETO Editor fnieto@hartenergy.com

Contributing Editors: Richard Mason, Mike Madere, Scott Weeden, Jennifer Postel, Michelle Thompson Keefe Borden, Nissa Darbonne, Leslie Haines, Peggy Williams, Susan Klann, Nancy Agin

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