MIDSTREAM

Transition Questions Remain For Mexican Energy Industry

Mexico's long-awaited energy reform is in place, where does the country go?

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

The recent energy reform unveiled in Mexico could make the country a strategic supplier of oil by 2025 while also improving its economy and improving relations in the hemisphere, according to David Goldwyn, president of Goldwyn Global Strategies and former special envoy and coordinator for international energy affairs with the U.S. State Department.

"Now the hard work begins. It's really all about implementation and execution," he said while speaking at a recent panel discussion presented by the Atlantic Council in Washington, D.C. Goldwyn said that the reform has five major accomplishments: 1) the introduction of private investment into the upstream, midstream and downstream; 2) the national separation of energy policy from industry supervision; 3) the creation of the Petroleum Fund that will institute caps coming out of the industry to the federal budget; 4) a system that if implemented correctly could make Mexico among the most transparent oil and gas producing countries in the world; and 5) a commitment to sustainability.

He noted that there are a number of challenges for the reform to be successful. "The first is managing expectations because the ramp up will be slow, and it will take a couple of years to get regulators [in place]. There will be a gradual, but not an exponential rise in invest-



Uncertain Travels I The direction of Mexico's energy future has been set, but there are many questions over the road ahead.

ment. Likewise in the power sector, you're going to need to develop gas and then transport gas in order to substitute gas

for fuel oil. So it's going to be a while before you see those results in the electricity sector."



HIGHLIGHTS FROM TODAY'S EDITION



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

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Cracking Plans Axiall plans to build a world-scale ethylene cracker along the Gulf Coast. **PAGE 6**



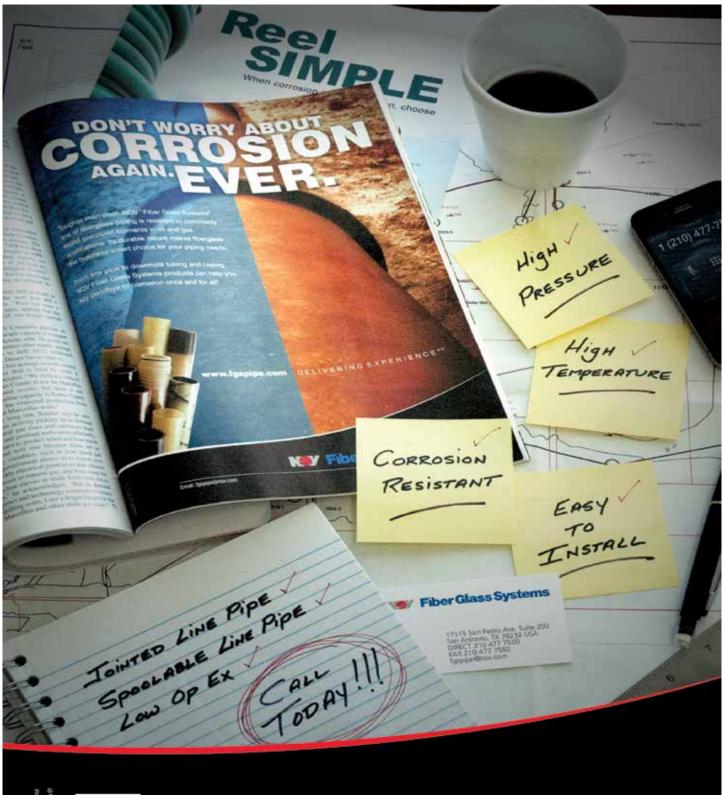
Arctic Chills Heat Up Gas Markets Spot prices climb above \$70 in some key markets. PAGE 3

Increased Risk

PHMSA reported that Bakken crude is more dangerous to transport due to higher flammability. PAGE 9

New Leader

According to a new report, EOG Resources will become the largest domestic producer of crude by 2018. PAGE 12





N/ Fiber Glass Systems

Email: fgspipe@nov.com

NGL PRICES & FRAC SPREAD | Week in Review

Spot Gas Prices Soar As Conway Ethane Continue To Crash

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

The Polar Vortex that hit much of the Lower 48 states the first full week of 2014 caused an incredible spike in natural gas spot prices with some markets such as the city of New York ramping up to \$70 per million Btu (MMBtu).

These temperatures, which fell into single digits in parts of the northern U.S., saw gas deliveries increase to a record of 134.3 billion cubic feet (Bcf) per day on January 7, according to Bentek Energy. The largest demand increase was in the Northeast, which experienced a 30% increase from January 6 to January 7.

January 13, 2014	Conway	Change from Start of Week	Mont Belvieu	Last Wee
Ethane	17.00		29.69	
Shrink	31.23		29.30	
Margin	-14.23	-46.59%	0.39	-89.49%
Propane	143.25		124.28	
Shrink	43.14		40.49	
Margin	100.11	-3.60%	83.79	-3.76%
Normal Butane	142.73		138.90	
Shrink	48.84		45.84	
Margin	93.89	-10.68%	93.06	-0.03%
Isobutane	145.55		143.00	
Shrink	46.91		44.02	
Margin	98.64	-9.57%	98.98	3.41%
Pentane+	202.78		206.65	
Shrink	52.23		49.02	
Margin	150.55	-12.38%	157.63	-6.47%
NGL \$/Bbl	44.98	-4.87%	44.50	-2.74%
Shrink	17.21		16.15	
Margin	27.77	-11.11%	28.35	-5.18%
Gas (\$/mmBtu)	4.71	7.29%	4.42	1.84%
Gross Bbl Margin (in cents/gal)	64.80	-10.73%	65.89	-5.18%
NGL Valu	e in \$/mmBtu	(Basket Value)		
Ethane	0.94	-12.37%	1.63	-8.48%
Propane	4.97	-0.56%	4.31	-2.00%
Normal Butane	1.54	-5.25%	1.50	0.58%
lsobutane	0.91	-4.74%	0.89	2.92%
Pentane+	2.61	-8.04%	2.66	-4.62%
Total Barrel Value in \$/mmbtu	10.97	-4.52%	11.00	-2.95%
Margin	6.26	-11.82%	6.58	-5.93%

NGL PRICES							
Mont Belvieu	Eth	Pro	Norm	lso	Pen+	NGL Bbl	
Jan. 1 - 7, '14	29.69	124.28	138.90	143.00	206.65	\$44.50	
Dec. 25 - 31, '13	32.44	126.82	138.10	138.94	216.66	\$45.75	
Dec. 18 - 24, '13	31.89	126.06	137.18	137.34	214.80	\$45.36	
Dec. 11 - 17, '13	29.37	130.42	132.34	132.48	208.64	\$44.69	
December '13	29.77	127.36	136.86	137.70	213.70	\$45.11	
November '13	24.74	118.38	142.70	145.93	207.80	\$43.39	
4th Qtr '13	26.76	119.81	142.56	145.02	210.66	\$44.03	
3rd Qtr '13	24.87	102.65	132.06	134.86	215.56	\$41.21	
2nd Qtr '13	27.12	91.38	124.01	127.46	204.12	\$38.82	
1st Qtr '13	25.68	86.42	157.72	166.41	222.63	\$42.07	
Jan. 2 - 8, '13	22.63	84.94	178.28	189.34	221.00	\$43.00	
Conway, Group 140	Eth	Pro	Norm	lso	Pen+	NGL Bbl	
Jan. 1 - 7, '14	17.00	143.25	142.73	145.55	202.78	\$44.98	
Dec. 25 - 31, '13	19.40	144.06	150.64	152.80	220.50	\$47.28	
Dec. 18 - 24, '13	19.30	139.30	153.88	153.96	217.40	\$46.68	
Dec. 11 - 17, '13	19.00	142.44	134.30	133.62	204.86	\$44.59	
December '13	18.84	137.56	143.70	143.56	212.33	\$45.25	
November '13	18.37	119.53	141.53	143.76	200.04	\$42.08	
4th Qtr '13	20.19	122.54	144.49	147.58	205.01	\$43.33	
3rd Qtr '13	20.80	99.22	129.23	142.77	209.94	\$40.07	
2nd Qtr '13	20.71	85.37	116.50	123.91	204.86	\$36.89	
1st Qtr '13	23.94	81.81	153.43	160.39	222.63	\$41.11	
Jan. 2 - 8, '13	19.60	78.86	181.13	176.65	219.96	\$41.74	

(Above) Data Provided by Bloomberg. Individual product prices in cents per gallon. NGL barrel in \$/42 gallons I 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.

"When cold strikes and more people are connected to the system, you have more systemic gas demand, so it becomes a pipeline capacity issue," Jack Weixel, Bentek's director of energy analysis, said in a press statement. Although prices retreated on January 8 as temperatures increased in much of the country, Weixel noted that until pipeline capacity increases cold weather will continue to cause price spikes.

The weather made a large impact on spot prices and storage levels, and weather related demands will remain the biggest driver of price changes in 2014, according to Barclays Capital. "On a weatheradjusted basis, supply/demand balances for 2014 look very similar to 2013. Industrial demand remains very strong, but robust production



NGL PRICES & FRAC SPREAD | Week in Review

growth still necessitates coal-to-gas displacement to balance the market. But with three winter months still ahead of us, weather anomalies remain a key risk that could alter the trajectory of balances and prices significantly," the investment firm said in a research note.

Unfortunately for natural gas liquid (NGL) producers, liquids prices failed to keep track with these increases and resulted in frac spread margins to tumble at both Conway and Mont Belvieu. While Texas prices were a mixed bag with heavy NGLs experiencing small gains, Kansas prices fell across the board.

For the most part, NGL prices returned to their average levels from December. The biggest decrease was for ethane prices, which fell 12% to 17 cents per gallon with extremely low volatility and a negative 14 cents per gallon margin. This price was the lowest in more than a year and the economics in the Midcontinent dictate the full rejection of ethane in the region with the exception of contract requirements and pipeline specifications.

It is not that hard to imagine the Conway ethane market being a thing of the past. Even with the strong possibility of Enterprise Prod-

ucts Partners building ethane export capacity it is possible that ethane

will continue to bypass

the Midcontinent for

a long time as there is

increased transportation capacity to the

Gulf Coast and there

has never been a strong

The ethane market

prices fell 8% to 30 cents

per gallon with a margin of nil. Interestingly the

biggest driver for ethane

been E-P mix, which has

been trading anywhere

from four cents to nine

cents per gallon more

prices at the hub has

market for E-P mix at

remains challenged at Mont Belvieu as well as

Conway.

KEY NORTH AMERICAN HUB PRICES				
2:30 PM CST / January 9, 2014				
Gas Hub Name	Current Price			
Carthage, TX	4.03			
Katy Hub, TX	4.03			
Waha Hub, TX	4.01			
Henry Hub, LA	4.14			
Perryville, LA	408			
Houston Ship Channel	4.03			
Opal Hub, Wyo.	4.12			
Blance Hub, NM	4.05			
Cheyenne Hub, Wyo.	4.12			
Chicago Hub	4.43			
Ellisburg NE Hub	3.56			
New York Hub	4.05			
AECO, Alberta	3.84			
AECO, Alberta	3.81			

Source: Bloomberg

than ethane.

This has been largely driven by propane prices, which have been strong this winter as heating demand has been high along with

RESIN PRICES – MARKET UPDATE – JANUARY 10, 2014							
TOTAL OFFERS: 6,501,856 lbs		SPO	от	CONTRACT			
Resin	Total lbs	Low	High	Bid	Offer		
HDPE - Blow Mold	1,538,484	0.73	0.825	0.69	0.73		
LLDPE - Inj	1,499,208	0.73	0.77	0.71	0.75		
LLDPE - Film	1,014,116	0.74	0.78	0.68	0.72		
LDPE - Film	828,196	0.75	0.81	0.75	0.79		
PP Homopolymer - Inj	794,564	0.85	0.89	0.815	0.855		
HDPE - Inj	346,460	0.73	0.79	0.69	0.73		
PP Copolymer - Inj	304,460	0.825	0.85	0.825	0.865		
HMWPE - Film	176,368	0.76	0.76	0.72	0.76		
HMWPE - Film			0.775	0.73	0.77		

Source: Plastics Exchange - www.theplasticsexchange.com

export demand. Although propane prices fell slightly at both hubs, they were at the highest levels in years. The Conway price fell 1% to \$1.43 per gallon and the Mont Belvieu price decreased 2% to \$1.24 per gallon.

The theoretical NGL barrel (bbl.) price fell at both hubs with the Mont Belvieu price falling 3% to \$44.50 per bbl. with a 5% decline in margin to \$28.35 per bbl. while the Conway price fell 5% to \$44.98 per bbl. with an 11% decline in margin to \$27.77 per bbl.

The most profitable NGL to make at both hubs was C_{5+} at \$1.58 per gallon at Mont Belvieu and \$1.51 per gallon at Conway. This was followed, in order, by isobutane at 99 cents per gallon at Mont Belvieu and Conway; butane at 93 cents per gallon at Mont Belvieu and propane at \$1.00 per gallon at Conway; propane at 84 cents per gallon at Mont Belvieu and butane at 94 cents per gallon; and ethane at nil at Mont Belvieu and negative 14 cents per gallon at Conway.

Natural gas in storage was down 157 Bcf to 2.817 trillion cubic feet (Tcf) the week of January 3, 2014 from 2.974 Tcf the previous week, according to the Energy Information Administration. This was 16% below the 3.345 Tcf recorded last year at the same time and 10% below the five-year average of 3.132 Tcf.

Storage levels should continue to decline based on the National Weather Service's forecast for the week of January 13, which anticipates colder-than-normal temperatures in the Midwest and along the East Coast. This will be somewhat counterbalanced by warmer-thannormal temperatures along the West Coast, Southwest and Rockies.





- Storage and rail loading facilities
- Compressor/pump stations

For more information, contact Blane Vincent, Director, Midstream Business Development Dir.: 832-615-1455 • Cell: 832-744-4802 • Email: bvincent@triter.com • www.triteniag.com

Enterprise To Expand LPG Export Facility On Houston Ship Channel

Enterprise Products Partners LP announced a further expansion of its liquefied petroleum gas (LPG) export terminal at Oiltanking's complex on the Houston Ship Channel. Enterprise's expanded LPG terminal is supported by a 50-year service agreement with Oiltanking Partners, LP to provide additional dock space and related services.

The expanded LPG export terminal is expected to be in service by the end of 2015 and is supported by long-term LPG export agreements. Upon completion of the expanded facilities, Enterprise will have aggregate capacity to load in excess of 16 million barrels per month of low-ethane propane mix and/or butane. This expansion is in lieu of a second LPG terminal announced in October 2013 and will result in more capacity than previously anticipated.

"We are pleased to announce the expansion of our LPG export marine terminal and the associated 50-year agreement with Oiltanking," said Michael A. Creel, chief executive officer of Enterprise's general partner. "The decision to expand at Oiltanking was directly attributable to our joint experience of loading LPG vessels on the Houston Ship Channel and our 33-year relationship with Oiltanking. Demand for both current and future LPG exports continues to be strong. The location of the expanded terminal at Oiltanking enables us to increase maximum loading capacity to approximately 27,000 barrels per hour, the highest in the industry, while nominally reducing the overall capital costs associated with the project."



Growing I The LPG export market continues to increase in size as Enterprise Products Partners completed expansion work on its Oiltanking complex.

"On the ethane front, we continue to negotiate with several customers that would support the development of an ethane export terminal. Our site evaluation for this facility continues. Depending on the outcome of these discussions, estimated ethane export demand and ship draft requirements, we expect the ethane export facility will be sited either adjacent to our refined products export terminal in Beaumont or on the Houston Ship Channel."

Axiall Plans New Ethylene Cracker In Louisiana

Petrochemicals producer Axiall Corp. selected Louisiana as the site for a proposed world-scale ethylene cracker and derivatives plant.

Axiall said it will build the facility with a "soon-to-be-named partner," and expects to finance its \$1 billion portion of the project with a combination of new debt and cash on hand. Another \$2 billion or so would be provided by a partner—bringing the total capital investment to about \$3 billion, according to the announcement.

Atlanta-based Axiall already owns several major manufacturing facilities in Louisiana, including two near Lake Charles area and one in Plaquemine.

"As part of Axiall's long-term growth strategy, we believe it is important we have further integration with cost-based economics on 50% of our current annual ethylene requirements," Axiall President and Chief Executive Paul Carrico was quoted as saying.

"While we are still considering a number of options and potential partners for the project, and we have not yet received final investment approval from our board of directors, we have narrowed our siting choices to Louisiana," Carrico added. "We are excited about the prospect of expanding our footprint in the State of Louisiana and continuing to invest in its talented workforce."

Axiall will begin the permitting process and certain front-end engineering design activities as it continues its final-site selection, Carrico said. Potential firms are being evaluated for both the ethylene and derivative portions of the project, and the company expects to announce a final partner in coming weeks, according to the announcement.

If Axiall chooses to move forward with the ethylene-cracker construction and gains board approval, commercial operations could begin in 2018.

The company predicts the ethylene cracker alone would create between 150 and 175 permanent full-time jobs once operational; an ad-



ditional derivatives plant would increase that number to between 225 and 250. Thousands of additional construction jobs would be created during a four-to-five year construction period, according to Axiall.

Ergon-Texas Pipeline Acquires Thompsons Pipeline System

Ergon-Texas Pipeline Inc. announced the acquisition of the Thompsons pipeline and associated assets from Blueknight Energy Partners LP.

The 42-mile pipeline originates in Thompsons, Texas, and terminates in Webster, Texas. Terms of the agreement were not disclosed.

Larry Hartness, senior vice president of Ergon Oil Purchasing Inc. said, "We are always looking for ways to secure quality, domestic crude for our refining operations. The Thompsons Pipeline System is a vital part of our continuing operations and further establishes our commitment to investing in this region of Texas."

Horsehead, Shell Extend Option On Pennsylvania Site

Horsehead Corp. and Shell signed "an amended and restationed option and purchase agreement" on the Horsehead facility in Monaco, Pennsylvania.

Shell had until December 31 on its current agreement extension to make a decision on whether to purchase the site. The latest extension agreement allows Shell to continue its evaluation of the Monaca site, located about 40 kilometers (24 miles) northwest of Pittsburgh.

It also allows for the start of demolition activities at the site, with Shell covering the expenses, according to the announcement. The demolition is expected to begin at certain portions of the site sometime in the first quarter of 2014.

In March 2012, Shell Chemical LP signed a land-option agreement with Horsehead Corp. to evaluate the Monaca site for a petrochemical complex that would include an ethane cracker to process the feedstock from the Marcellus shale formation.

Survey Finds U.S. Energy CFOs Bullish On Oil Prices

The U.S. energy industry has reason to feel optimistic heading into this year. According to BDO USA LLP's annual survey of 100 U.S. oil and gas chief financial officers, 63% of chief financial officers feel more confident about the U.S. economy and its impact on demand for energy in 2014, a 54% increase from last year's study. Underlying this positivity is the continuing profitability of shale exploration and production. A plurality (32%) of CFOs see increased oil and gas prices as the most important factor driving overall growth for the energy industry in 2014 as the U.S. continues to sell its inexpensivelyproduced resources at high international prices.

Supply and demand dynamics also continue to favor the U.S. industry. CFOs predict accelerated production of U.S. resources will continue in the New Year, with 73% and 76% of CFOs expecting the domestic supply of natural gas and oil, respectively, to increase in 2014. Accompanying this growth in supply is an attendant growth in demand. Sixty-two percent of CFOs expect domestic demand for natural gas to increase in 2014, and two-thirds project that domestic demand for oil will grow, as well. Meanwhile, demand overseas continues to swell, with 65% and 64% of CFOs anticipating growth in global demand for oil and natural gas, respectively.



Surging Forward I There is a growing sense that the oil market is turning the corner, including a majority of energy CFOs anticipating a bull market in 2014.



While energy CFOs are confident that opportunities for growth will continue in 2014, they remain conscious of challenges facing the industry. A majority (53%) of CFOs believe legislative changes will be the top factor inhibiting overall industry growth in 2014, a modest (6%) increase from last year's study. Additionally, CFOs worry about the impact of international events on oil prices: a plurality (46%) of CFOs cite ongoing turmoil in the Middle East as having the greatest impact on oil price volatility in the coming year as conflicts continue in the region and Iran plans to ramp up its oil production once sanctions ease. CFOs also express concern that economic growth in Asian countries will cause price fluctuations, with onequarter of CFOs citing it as a top factor—more than a three-fold increase over last year's study.

"Non-conventional resources remain lucrative and continue to expand the United States' share of the international energy market," says Charles Dewhurst, partner and leader of the Natural Resources practice at BDO. "But energy executives also know that this highly volatile industry is vulnerable to global events, and are therefore thinking carefully about their contingency plans should the price environment take a turn for the worse."

These findings are from the BDO 2014 Energy Outlook Survey, which examines the opinions of 100 chief financial officers at U.S. oil and gas exploration and production companies. The nationwide survey was conducted from September through November 2013.

New England, New York Largest Natural Gas Price Increases In 2013

According to the Energy Information Administration (EIA) average wholesale (spot) prices for natural gas increased significantly throughout the U.S. in 2013 compared to 2012. The average wholesale price for natural gas at the Henry Hub in Erath, Louisiana, the key benchmark location for pricing throughout the U.S., rose 35% to \$3.73 per million British thermal units (MMBtu) in 2013. Increased winter demand pushed inventories down and prices up to above \$4.00 per MMBtu in March and April, but decreased consumption for electric generation over the summer and positive (but flattening) production growth kept 2013 prices at their lowest level since 2002 with the exception of 2012.

The price increases were relatively uniform, except in the Northeastern U.S., where cold-weather-driven demand spikes exacerbated the impact of pipeline constraints in Boston and New York City markets. The importance of supply changes for prices is shown at the Transco Leidy Hub in Pennsylvania where prices in 2013 were only 11% higher than in 2012, despite much greater absolute and percentage price increases at nearby hubs serving New York City and Boston. The Leidy Hub prices were most directly affected by continued growth in production from the Marcellus shale.



Leading The Way I Enable Midstream Partners' new president and CEO, Lynn Bourdon III, brings vast experience in the midstream to his new post. (Courtesy: Enable Midstream Partners LP)

Enable Midstream Names Bourdon President, CEO

The General Partners of Enable Midstream Partners LP announced that Lynn L. Bourdon III has been named as president and chief executive officer of the company effective February 1, 2014.

Bourdon joins the company from Enterprise Products Partners LP, where he most recently served as group senior vice president of NGL and natural gas marketing, petrochemical, refined products and marine services. In this role, he was responsible for the marketing activities of the company while maximizing asset

utilization and creating new opportunities in both domestic and international markets. He also utilized his experience in the gas processing, petrochemical and refining sectors to find creative solutions for suppliers and end-use customers while ensuring that the company's various assets were fully engaged. Bourdon joined Enterprise as senior vice president of NGL supply and marketing in 2003 and served in various senior management positions during his tenure there.



McClendon's Company Seeking \$2 Billion For Acquisitions

BY DARREN BARBEE | HART ENERGY

A company tied to Aubrey McClendon is on the prowl for \$2 billion from public investors as McClendon's company bears down on the Utica.

Call it an act of faith in a big name. The investment is a blind offering, meaning investors won't be able to see what the company owns prior to plunking down a minimum of \$5,000. McClendon has been active in the Utica following a \$1.7 billion joint venture in October.

On December 13, American Energy Capital Partners (AECP), the partnership linked to Chesapeake Energy's former chief executive, filed an S-1, a document used in the initial registration for new securities.

The partnership's ultimate goal is to cash out by flipping the business in five to seven years.

"We are a bit cautious on this strategy since industry focus has shifted from flipping acreage to more efficient operations over the last 12-18 months," said Hsulin Peng, an analyst with Baird Energy.

The partnership's units will pay a monthly dividend equaling a 6% yield or \$1.20 per unit. The units will not be publicly traded.

McClendon's management company is entitled to receive a 2% fee of the cost of the contract price for each property acquired, whether it's producing or non-producing oil and gas properties.

"McClendon's core competency is E&P A&D, so we will be monitoring his progress carefully," Peng said. "Generally we think increased funding for AECP is a modest positive for Utica names given the partnership's leasing focus in the play to date."

The partnership will be managed by AECP Management LLC, which was formed in July 2013 by McClendon.

McClendon is the chief executive and sole member of the management company since it was formed to oversee existing and future oil and natural gas assets. The company will provide services including:

- Identifying and evaluating oil and natural gas properties for acquisition, development, integration, sale or monetization;
- Conducting (or overseeing one of its affiliated companies or thirdparties to conduct) drilling, completion, production, marketing and hedging operations as the operator of its oil and natural gas properties,
- Overseeing drilling, completion, production, marketing and hedging operations,
- Identifying and evaluating financing alternatives for acquisitions, and
- Managing financial, accounting and other back-office support functions.

The investment should attract interest. McClendon co-founded Chesapeake in May 1989 and built it into one of the top drilling companies until his resignation in April. During his leadership, Chesapeake discovered the Haynesville shale, Utica shale, Powder River Niobrara shale, Tonkawa Sand and Mississippi Lime unconventional plays.

AECP management has a staff of more than 125 professionals with extensive oil and natural gas industry experience. The team has expertise in engineering, drilling, operations, geoscience, land, finance, accounting, IT, marketing and administration.

Despite McClendon's pedigree, the companies involved in the offering go to great lengths to note that they have no prior operating history or established financing sources.

"Investing in our units involves a high degree of risk," the S-1 says.

In October, McClendon raised \$1.7 billion in equity and debt through a joint venture between Red Hill Development, part of the family owned Kimble Cos., and McClendon's American Energy-Utica LLC.

PHMSA: Bakken Crude More Dangerous To Ship Than Other Oil

BLOOMBERG

Crude oil produced in North America's booming Bakken region may be more flammable and therefore more dangerous to ship by rail than crude from other areas, a U.S. regulator said after studying the question for four months.

The Pipeline and Hazardous Materials Safety Administration (PHMSA) announced its preliminary conclusion on January 2, three days after a BNSF Railway Co. train carrying oil caught fire after a collision in Casselton, North Dakota.

The North Dakota accident is the fourth major North American accident in six months by trains transporting crude. Record volumes of oil are moving by rail as production from North Dakota and Texas pushes U.S. output to the most since 1988 and pipeline capacity and project approvals have failed to keep up.

The regulator "is reinforcing the requirement to properly test, characterize, classify, and where appropriate, sufficiently degasify hazardous materials prior to and during transportation," according to a safety alert posted on its website on January 2.

The agency's findings may expedite the rail industry's push for stronger tank cars for moving crude and other hazardous materials. It strengthens calls for the petroleum industry to accurately label tank-



car contents and test shipments to make sure they don't contain gases from the lighter oil produced in the shale rock in North Dakota.

"We believe there is sufficient cause for concern," about whether crude shippers are properly labeling tank cars' contents, Jeannie Shiffer, a pipeline-regulator spokeswoman, said in an e-mail to Bloomberg.

Continental Resources Inc., the largest owner of drilling rights in the Bakken formation, fell 4.2% to \$107.76 on January 2 in New York trading. Earlier, the shares fell to \$106.12 for the biggest intraday day decline since November 7.

U.S. regulators, including the Federal Railroad Administration, began examining whether Bakken crude is more risky to move by rail following an explosion of cars carrying North Dakota crude in Lac Megantic, Quebec. About three-quarters of the oil produced in North Dakota is shipped by rail rather than pipeline.

The "implications for cost and speed of crude out of the Bakken as a result of today's safety alert are likely to depend on the rulemaking" that follows, Kevin Book, managing director for research at ClearView Energy Partners LLC in Washington, said in an e-mail to Bloomberg. "We expect that the North Dakota accident will bring a proposal sooner rather than later."

Tank cars

PHMSA announced that it was establishing new rules for fuel shipments in September. That agency and the rail-safety regulator are also considering a rule to require stronger tank cars. The proposal has the rail industry's support and is being challenged by the shippers that own or lease the railcars.

The Association of American Railroads in November asked regulators to require most of the U.S. tank car fleet, numbering about 92,000 cars, to be replaced or retrofitted to make the equipment better able to withstand a crash. The Washington-based trade group's members include BNSF, owned by Warren Buffett's Berkshire Hathaway Inc.

"The rail industry is and is going to continue to be a player in the rush to this country's energy independence," Patti Reilly, a rail association spokeswoman, said in a phone interview. "We're going to do everything we can to help this country achieve energy independence, and we're going to do it in the safest possible manner."

The group called on regulators to require an outer steel jacket around tank cars, release valves on the cars and stronger seals on each end of them. Recent accidents should compel regulators to require shippers immediately to pull the older cars from the tracks to be retrofitted or replaced with sturdier models, said Karen Darch, the co-chairman of a coalition of communities around Chicago that supports tougher federal regulations for rail lines.

"We need to do this now before something else happens," Darch said in a phone interview.

Shell Completes Repsol LNG-Portfolio Acquisition

Royal Dutch Shell plc announced the completed acquisition of Repsol S.A.'s liquefied natural gas (LNG) portfolio, excluding North American assets, for a cash consideration of \$4.1 billion.

As part of the transaction, Shell will assume \$1.6 billion of balancesheet liabilities for existing LNG ship-charter leases—substantially increasing the shipping capacity available to Shell's LNG marketing business, according to the announcement.

The deal gives Shell an additional 7.2 million tonnes per annum (MMt/a) of directly managed LNG volumes. The company's already diverse portfolio will be boosted with LNG supply in the Atlantic from Trinidad and Tobago, and in the Pacific from Peru.

Following the announced transaction in February 2013, value adjustments were made in accordance with the terms of the sales and purchase agreement, Shell said. The adjustments are expected to lead to a net cash purchase price of \$3.8 billion, versus the initial \$4.4-billion purchase price announced in February 2013; and balance-sheet liabilities of \$1.6 billion, versus \$1.8 billion initially.

The deal includes the exercise of pre-emption rights of the BBE power plant in Spain by an existing partner, as well as other adjustments, such as the financial performance of the portfolio and working-capital movements since the effective date of October 1, 2012, the announcement noted.

The deal closed in 2014. Shell's capital investment in the fourth quarter of 2013 will reflect \$3.4 billion for this latest transaction. The remaining \$2 billion—of which \$1.6 billion is a non-cash item related to finance ship leases—will be booked in 2014, according to the statement.



GlobalData: Eagle Ford Shale Will Remain Major Contributor To Crude Production Growth

Production from the Eagle Ford shale will continue to grow in 2014, fueling a reduction in net crude imports and driving exports of refined products in the U.S. to pre-1990 levels, says a new report from research and consulting firm GlobalData.

The company's latest report, "Unconventional Resources Analysis: Eagle Ford Shale (US Lower 48) Substantial Returns in Liquids Rich Acreage," states that the Eagle Ford boasts an even larger resource than initially thought, as companies successfully down-space wells, creating more drilling locations with each well producing increasingly more.

Taryn Slimm, GlobalData's lead analyst covering U.S. Onshore, says: "With over 250 rigs operating in Eagle Ford, companies are expected to spend approximately \$30 billion in capital this year, and nearly all of the major operators are projecting at least five years' more drilling at the current rapid pace. The most efficient operators in sweet spots are achieving over 100% pre-tax Internal Rates of Return (IRR) with conservative pricing."

Enterprise Products Begins Service On Expanded Mid-America Pipeline

Enterprise Products Partners LP announced that transportation services for shippers who executed long-term agreements supporting the partnership's Mid-America Pipeline Rocky Mountain expansion project officially began January 2.

The project is designed to accommodate natural gas and natural gas liquids (NGL) production from major basins in Utah, Colorado and Wyoming. Several new natural gas processing plants have been constructed in the Uinta and Greater Green River basins that will benefit from the expansion.

Corbett Calls Upon Pa. Oil, Gas Operators To Follow Original Act 13 Water Standards

Pennsylvania Governor Tom Corbett called upon Pennsylvania's oil and gas operators to help protect the commonwealth's rivers, streams and wetlands from impacts during oil and gas development by adhering to critical environmental standards recently struck down by the Pennsylvania Supreme Court.

"The Supreme Court's recent ruling on Act 13 of 2012 set aside important buffer restrictions between drilling activity and our waterways and wetlands," Corbett said. "In doing so, the court overturned protections which I signed into law and which received strong, bipartisan support in the General Assembly. This action, which could imperil our water quality, is simply unacceptable."

The setback provisions struck down by the court had required a minimum of 300 feet between an unconventional oil or gas well bore and a stream, spring, body of water or wetland. The minimum distance for conventional oil and gas wells between a well bore and a stream, spring, body of water or wetland was established at 100 feet. Distance provisions could only be waived by the state Department of Environmental Protection upon satisfactory demonstration of additional protective measures taken by an operator to ensure that water quality was fully protected.

"I am calling upon Pennsylvania's oil and gas operators to honor both the spirit and intent of these setback provisions to continue helping us protect Pennsylvania's water and natural resources," Corbett said. "Many of the enhanced environmental standards contained in Act 13—including the setback distances—were put forth by oil and gas operators, environmental advocacy organizations, local government associations and others who served on my Marcellus Shale Advisory Commission, and in close consultation with the General Assembly. This collaborative effort has helped Pennsylvania expand its world class energy industry in a safe and responsible way."

As part of the call to action, Corbett reached out directly to the leadership of Pennsylvania's key oil and natural gas trade associations. Corbett also reiterated that the Pennsylvania Department of Environmental Protection will continue its aggressive implementation of the Oil and Gas Act and other environmental statutes which protect the commonwealth's environment.



SNAPSHOT | Industry Insight

Bernstein Research: EOG Will Be Top Domestic Crude Producer By 2018

BY CAROLINE EVANS | HART ENERGY

It's not a question of, but when EOG Resources will overtake the likes of Chevron and BP to become the No. 1 oil producer in the U.S., according to a new report by Bernstein Research.

Ultimately, it will be the company's conservative outlook that will maintain its growth, not risky—not or even slightly risky—moves behavior. Although greenfield entries and bolt-ons are a possibility, a major acquisition by EOG is unlikely. There is also not much expected in terms of global new ventures.

EOG has no interest in venturing outside of the country or even other parts of North America.

According to the report, "though EOG's stock price has outperformed peers over the prior year and is near the top of its peer set in terms of price/cash flow, we feel there is still room for EOG to outperform." In addition to reiterating its outperform rating on EOG, the research firm raised its target price from \$181 to \$222.

The report, "When Will EOG Become the Number 1 U.S. Oil Producer," which was authored by senior analyst Bob Brackett and released before the new year, pointed to EOG's leadership, its consistent growth year after year, its cautious optimism on oil prices and its pessimism on gas prices, among other factors, as working in the independent E&P's favor.

"EOG has grown oil production by 43% peryear for the past three years, and amazingly could become the top U.S. crude oil producer by 2018," Brackett writes, noting that EOG would exit 2013 producing around 230,000 barrels of oil per day, a rate which could very well double by 2017. In a meeting with EOG Chief Executive Bill Thomas, Bernstein was told the company will likely top Chevron and BP in the next three to four years.

EOG, the Eagle Ford's leading oil producer, evidently likes where it's at.

Mark Papa, board director and former president, has said that international shale would need to be "better than the Eagle Ford" to account for the increased risk and labor. Current results in Argentina and China have not yet met that bar, according to the report.

Domestically, the company's oil outlook is "perhaps even slightly more negative" than Bernstein's. "They believe the market is overestimating upcoming U.S. production," Brackett writes. "In their latest investor presentation, they note that the Bakken and Eagle Ford have together been the only two major drivers of horizontal crude growth from 2005-2013 and that the rate of growth is slowing."

Concerning natural gas, Thomas acknowledged to Bernstein that "gas is the fuel of the future ... someday," the company noted that gas can only be competitive above \$5.50 per thousand cubic feet, a level EOG does not anticipate before 2017-2018.



Pumping Up I The domestic oil renaissance is causing a changing of the guard as EOG Resources is set to become the largest producer of crude in the U.S. within the next five years, according to a Bernstein Research report.



LEAD STORY | From The Front

Continued from Page 1

The country will also need to deliver competitive oil and gas exploration terms for different forms

of acreage whether they areprofit-sharing or production-sharing in order to balance profitability while also creating a strong regulatory framework. "You're going to need people, you're going to need rules, and you're going to need to move fast. I think the bellwethers for me are whether Mexico outsources and brings in external help and external expertise to bridge the gap to where they train their own cohort of regulators," he said.

It will also be a challenge for Mexico to move away from its reliance on Pemex toward a more diverse group of oil and gas companies throughout the hydrocarbon sector. While speaking on the panel, Jorge Pinon, director of the University of Texas at Austin's Center for International Energy and Environmental Policy, said that Pemex is not going to disappear or become privatized, but rather undergo "recapitalization" while still retaining the dominant position in the region's energy sector.

"We have to be sure that Pemex is able to compete in this new world. Pemex can't now take and play a very important role in this whole process if it has one hand tied behind its back. ... Pemex is going to go through what I consider a very important brain drain. As all of these new companies come into Mexico to operate, let me assure you that a lot of the technicians, geologists and petroleum engineers are going to come from Pemex," he said.

While Pemex will remain strong, Pinon said it is important for the company to also change its culture.

However, if these reforms are implemented, it could take the country to the "head of the class" of investments, according to Goldwyn. "If this model works the way it's designed, Mexico will be in pole position in the hemisphere."

These reforms will also help establish a more secure and integrated North American energy market by guaranteeing both supplies and the stability of these supplies for producers of North America, Dr. Duncan Wood, director of the Wilson Center's Mexico Institute, said during the panel discussion.

"We need to keep energy costs low in the United States and in Canada, and we need to lower them significantly in Mexico. Partially that's for competitiveness, and partially it's because people need it. Some people in Mexico spend up to one-third of their income on their electricity bill every month in the north of the country. We need to lower those electricity costs for social purposes as well, and I think the energy reform will offer that possibility," Wood said.

Much of the focus of these reforms have been on the E&P side of things, where much of the initial private investments is expected to focus, but Pinon noted that there is great demand for new infrastructure.

"According to Pemex, there is about 2 million barrels (bbl.) per day of [crude] demand, but there's only 1.6 million bbl. per day of boilerplate refinery capacity. Of that, only 1.2 million bbl. per day is really operable capacity. Therefore there is a huge gap of more than 600,000 bbl. per day of imports, not only of refined products but also of natural gas, at a value of more than \$20 billion per year. This is an issue that needs to be addressed," he said. Since it takes approximately three to seven years to construct a refinery, Pinon said it was critical for Pemex to form joint ventures with American companies to utilize refining capacity along the Gulf Coast.

Ultimately, the Mexican government would like to see some of these joint ventures lead to the establishment of more permanent bases in Mexico that will increase domestic production. "We're very interested in establishing direct foreign investment. We're looking for companies that are right now based in the U.S. that will be able to establish offices in Mexico and produce products here. Instead of buying products from the U.S., we'd like to be able to buy the products from Mexico. Both Brazil and Norway have been successful in achieving these goals," the country's undersecretary of hydrocarbons, Enrique Ochoa Reza said during the panel discussion.

These joint ventures should also help the Mexican oil and gas industry achieve the reform's desired goal of transparency, Wood said. "The international oil industry, while historically has not been the most transparent industry, in recent years has begun to pick up and to realize that transparency actually works in its favor."

Pinon agreed with his assessment by noting the industry has changed considerably in the past 20 to 50 years and now welcomes transparency, especially when it comes to cooperation among different companies and the sharing of seismic data.

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Contact Information:

FRANK NIETO Editor

fnieto@hartenergy.com

Contributing Editors: Richard Mason, Mike Madere, Scott Weeden, Michelle Thompson, Nissa Darbonne, Leslie Haines, Peggy Williams, Susan Klann, Darren Barbee, Paul Hart, Emily Moser, Chris Sheehan, Steve Toon, Velda Addison, Kristie Sotolongo, Rhonda Duey, Caroline Evans, Nicole Johnson, Christina Alty, Larry Prado

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