

Should The Ban On Crude Oil Exports Be Lifted?

Experts question the economic benefits of continuing to ban U.S. crude exports.

BY **FRANK NIETO** | SENIOR EDITOR, MIDSTREAM BUSINESS

The word cyclical is tossed around a lot in the energy industry, primarily focusing on the up and down nature of the oil and gas markets as well as the different types of capital—private and public—being invested into the sector. These markets tend to rise and fall on a regular basis.

Since the 1970s the word “export” has been something of a dirty word in the energy business at least when it comes to the general public, which wants to keep as much petroleum production in the country as possible in order to lower their bills. This is especially true when it comes to crude oil, but increasingly there is growing support from business and political leaders to export volumes. Indeed we have long since passed the days of foreign oil embargoes.

The proliferation of shale play production is reconfiguring the entire global oil market as the U.S. is becoming a net exporter of gas and liquids and the volume of crude imports is quickly diminishing as the Bakken, Niobrara, Permian and Eagle Ford Shales have led to the U.S. becoming one of the largest global oil producers.

More and more the call isn't for the U.S. to produce enough oil to cut imports from foreign countries that aren't friendly to U.S. political



The U.S. won't fully realize the value of its increased crude production unless it adopts regulations that allow for the free trade of oil similar to those in Russia and other oil producing countries, according to a new API report and expert testimony at a Senate Subcommittee hearing.

interests, but to export domestic crude to reap the financial and political benefits.

On March 31, the American Petroleum Institute (API) released a report titled “The Impacts of U.S. Crude Oil Exports on Domestic Crude Production, GDP, Employment, Trade, and Consumer Costs.” The report, which was authored by ICF International and EnSys Energy, found that by lifting its ban on crude exports from 2015 to 2035, the U.S.

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Future Ethane Prices Could Increase As Rejection Continues

BY **FRANK NIETO** | SENIOR EDITOR, MIDSTREAM BUSINESS

Ethane rejection remains the norm throughout the country, but there are signs of hope for traders as margins have continued to remain theoretically positive throughout the end of the winter and early spring. In addition, the Energy Information Agency (EIA) reported ethane production data for January, which showed the extraction levels rose by 117,000 barrels (bbl) for the month.

It is likely this was tied to increased demand for propane during the polar vortex event in early 2014, which consequently caused slight increases in E-P mix demand. During this time period, ethane prices experienced their greatest gains, which encouraged producers to extract more volumes.

CURRENT FRAC SPREAD (CENTS/GAL)				
April 7, 2014	Conway	Change from Start of Week	Mont Belvieu	Last Week
Ethane	31.25		29.36	
Shrink	28.71		28.58	
Margin	2.54	34.20%	0.78	163.32%
Propane	103.90		105.98	
Shrink	39.66		39.48	
Margin	64.24	3.33%	66.50	4.63%
Normal Butane	120.12		123.98	
Shrink	44.90		44.69	
Margin	75.22	2.85%	79.29	0.24%
Isobutane	146.06		128.56	
Shrink	43.13		42.93	
Margin	102.93	14.00%	85.63	1.83%
Pentane+	234.60		221.78	
Shrink	48.02		47.80	
Margin	186.58	10.85%	173.98	2.22%
NGL \$/Bbl	43.63	4.35%	42.13	0.97%
Shrink	15.82		15.74	
Margin	27.81	7.91%	26.39	2.85%
Gas (\$/mmBtu)	4.33	-1.37%	4.31	-2.05%
Gross Bbl Margin (in cents/gal)	62.84	7.76%	60.50	3.02%
NGL Value in \$/mmBtu (Basket Value)				
Ethane	1.72	0.81%	1.62	-0.37%
Propane	3.61	1.48%	3.68	2.04%
Normal Butane	1.30	1.23%	1.34	-0.59%
Isobutane	0.91	8.98%	0.80	0.50%
Pentane+	3.03	8.11%	2.86	1.27%
Total Barrel Value in \$/mmBtu	10.56	3.78%	10.29	0.97%
Margin	6.23	7.68%	5.98	3.27%

NGL PRICES						
Mont Belvieu	Eth	Pro	Norm	Iso	Pen+	NGL Bbl
March 26 - April 1, '14	29.36	105.98	123.98	128.56	221.78	\$42.13
March 19 - 25, '14	29.47	103.86	124.72	127.92	219.00	\$41.73
March 12 - 18, '14	30.04	106.32	124.70	128.82	220.96	\$42.27
March 5 - 11, '14	32.93	107.84	125.42	130.26	212.68	\$42.40
March '14	30.89	106.20	124.77	129.25	218.19	\$42.21
February '14	38.25	143.12	139.85	143.10	210.70	\$48.38
1st Qtr '14	34.50	129.51	137.62	141.49	212.60	\$46.16
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
March 27 - April 2, '13	29.90	94.90	141.30	147.00	215.55	\$41.87
Conway, Group 140	Eth	Pro	Norm	Iso	Pen+	NGL Bbl
March 26 - April 1, '14	31.25	103.90	120.12	146.06	234.60	\$43.63
March 19 - 25, '14	31.00	102.38	118.66	134.02	217.00	\$41.81
March 12 - 18, '14	32.00	107.70	118.62	132.02	223.42	\$42.99
March 5 - 11, '14	33.50	112.42	118.58	134.12	226.90	\$44.09
March '14	32.20	107.10	119.02	136.50	225.70	\$43.25
February '14	25.76	160.37	130.93	150.07	216.97	\$48.92
1st Qtr '14	25.46	169.48	132.08	147.10	216.86	\$49.93
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
March 27 - April 2, '13	26.58	89.30	134.22	143.57	221.00	\$40.87

(Above) Data Provided by Bloomberg. Individual product prices in cents per gallon. NGL barrel in \$/42 gallons | Source: Hart Energy

(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.

“We are still expecting U.S. ethane inventories to continue to drop through March, with increases in April and May. By July, our revised balances indicate that ethane stocks should be at 19.6 million bbl as the completion of ethylene plant expansions should push ethane cracking to at least 1.2 million bbl/d, with days-of-inventory supply at 17.0,” En*Vantage said in its *Weekly Energy Report* for April 2.

According to the report, ethane rejection should be at least 200,000 bbl/d with production levels of 1.1 million bbl/d. “The ethylene industry will have a choice to continue to pay low prices for ethane causing ethane rejection to continue and stocks to fall further or they can pay-up for ethane to induce rejected volumes to come to the market.”

NGL PRICES & FRAC SPREAD | Week in Review

Global Hunter Securities wrote in an April 2 research note that petrochemical companies have been withdrawing ethane from inventory for three consecutive months in order to meet demand. This situation is likely to cause a short squeeze on ethane in the third quarter and result in a minimum of a 20 cents/gal increase above current prices, according to En*Vantage.

That is a very strong positive for producers and traders to look forward to as ethane is currently trading at steady levels. Mont Belvieu prices held firm at 29 cents/gal the week of March 26 while the Conway price increased 1% to 31 cents/gal.

The recent closing of the Houston Ship Channel for four days in late March following a 4,000 bbl fuel-oil spill resulted in a buildup of propane inventories as LPG exports were limited. The return to normal operations at the channel has seen exports rise back to approximately 400,000 bbl/d, which will put pressure on the industry's ability to reload propane stock levels ahead of next winter.

Stock levels could be rebuilt with increased prices, but so far prices have only increased at marginal levels at both Conway and Mont Belvieu, which implies stocks could be very tight when heating demand returns. The Mont Belvieu price rose 2% to \$1.06/gal while the Conway price increased 1% to \$1.04/gal, both of which are well below

KEY NORTH AMERICAN HUB PRICES	
2:30 PM CST / April 3, 2014	
Gas Hub Name	Current Price
Carthage, TX	4.37
Katy Hub, TX	4.42
Waha Hub, TX	4.4
Henry Hub, LA	4.48
Perryville, LA	4.39
Houston Ship Channel	4.45
Opal Hub, Wyo.	4.47
Blance Hub, NM	4.42
Cheyenne Hub, Wyo.	4.44
Chicago Hub	4.76
Ellisburg NE Hub	4.16
New York Hub	4.36
AECO , Alberta	4.22

Source: Bloomberg

the average prices posted in February and the first quarter of this year.

Refinery turnarounds caused isobutane and C₅₊ prices to increase at both hubs despite West Texas Intermediate crude prices trading at around \$100/bbl Conway prices experienced the biggest increases with isobutane increasing 9% to \$1.46/gal, its highest price since mid-February. Pentanes-plus (C₅₊) rose 8% to \$2.35/gal, the highest it has traded at since the week of Feb. 13, 2013.

Mont Belvieu isobutane and C₅₊ rose 1% each with the isobutane price

RESIN PRICES – MARKET UPDATE – APRIL 4, 2014					
TOTAL OFFERS: 14,401,920 lbs		SPOT		CONTRACT	
Resin	Total lbs	Low	High	Bid	Offer
PP Homopolymer - Inj	2,777,520	0.78	0.83	0.77	0.81
LDPE - Film	2,725,336	0.775	0.83	0.74	0.78
PP Copolymer - Inj	2,568,600	0.73	0.815	0.78	0.82
LLDPE - Film	1,487,564	0.75	0.8	0.71	0.75
HMWPE - Film	1,278,668	0.725	0.785	0.73	0.77
HDPE - Inj	1,145,288	0.7	0.8	0.7	0.74
LLDPE - Inj	1,077,104	0.77	0.79	0.71	0.75
LDPE - Inj	719,104	0.735	0.79	0.73	0.77
HDPE - Blow Mold	622,736	0.73	0.78	0.7	0.74

Source: Plastics Exchange – www.theplasticsexchange.com

of \$1.29/gal being the highest in a month and the C₅₊ price of \$2.22/gal being the highest since the week of Sept. 11.

The theoretical NGL bbl. price rose 4% to \$43.63/bbl at Conway with an 8% gain in margin to \$27.81/bbl. The Mont Belvieu price rose 1% to \$42.13/bbl with a 3% gain in margin to \$26.39/bbl. The most profitable NGL to make at both hubs was C₅₊ at \$1.87/gal at Conway and \$1.74/gal at Mont Belvieu. This was followed, in order, by isobutane at \$1.03/gal at Conway and 86 cents/gal at Mont Belvieu; butane at 75 cents/gal at Conway and 79 cents/gal at Mont Belvieu; propane at 64 cents/gal at Conway and 67 cents/gal at Mont Belvieu; and ethane at 3 cents/gal at Conway and 1 cent/gal at Mont Belvieu.

Natural gas storage levels continued to fall to five-year lows the week of March 28, which is the most recent data available from the EIA. The agency reported gas in storage fell 74 billion cubic feet (Bcf) to 822 Bcf from 896 Bcf the previous week. This was 52% below the 1.7 trillion cubic feet (Tcf) reported last year at the same time and 55% below the five-year average of 1.814 Tcf.

Heating and cooling demand should remain fairly small as the spring shoulder season continues. There could be a slight bump in heating demand as the National Weather Service is forecasting cooler-than-normal temperatures along the East Coast. Additionally, warmer-than-normal temperatures along the West Coast, which could increase cooling demand.

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Report Unveils US EPA 'Fraud, Deceit, Secret Science'

BY KRISTIE SOTOLONGO | HART ENERGY

A former high-ranking, handsomely paid staffer with the U.S. Environmental Protection Agency (EPA), who defrauded the agency out of two and a half years of work that he never performed and faked that he was a CIA spy but had appreciably no experience, was hired by a college buddy and went on to play a key role in far-reaching environmental regulations, a U.S. Senate Committee report released March 19 stated.

John Beale was hired in 1988 by Robert Brenner, the former deputy director of the Office of Policy Analysis and Review within the EPA's Office of Air and Radiation. A close friend of Beale's from Princeton University, Brenner gave him the lead role of crafting major air-quality regulations in 1995 that set the stage for "the exponential growth of the agency's power over the American economy."

Yet prior to his post at the EPA, Beale had no legislative or environmental policy experience and "wandered between jobs at a small-town law firm, a political campaign and an apple farm," according to senators.

Despite John Beale's lack of skills, those regulations remain in place 20 years later. Beale is, in fact, still hailed as a hero at the EPA, according to the report.

Within the agency, some officials making critically important policy decisions were not remotely qualified and "anything but neutral," the Senate Environment and Public Works Committee wrote.

"And in at least one case, EPA decision-making was delegated to a now-convicted felon and con artist, John Beale," the report noted.

"Rather than recruit someone with the requisite experience, Brenner sought out Beale in what appears to be a decision based solely on their personal friendship rather than any experience or credentials," said conclusions of the report.

At the time he resigned in April 2013, Beale was a senior adviser earning more than \$200,000 in salary and bonuses annually.

EPA 'playbook'

Together with Brenner, Beale implemented the EPA's regulatory "playbook," which included the National Ambient Air Quality Standards (NAAQS) for Ozone and Particulate Matter, the committee noted.

Beale used "Machiavellian" tactics to change the role of the EPA from protecting the environment to pushing an ideological political



John Beale invoked his Fifth Amendment privilege to remain silent when he appeared before House lawmakers in October 2013.

(Source: House Oversight and Government Reform Committee)

agenda aimed at expanding agency control over the economy, according to the report.

Beale was sentenced last year to 32 months in prison for stealing nearly \$900,000 from taxpayers after years of posing as a CIA operative and abusing his privileges as an EPA senior staff member. The incident has raised questions about the ability of the EPA to prevent fraud, as well as the qualifications and connections of agency employees.

"Delegating the NAAQS to Beale was the result of Brenner's facilitating the confidence of EPA elites, making Beale the gatekeeper for critical information throughout the process," according to the report. "Beale accomplished this coup based on his charisma and steadfast application of the belief that the ends justify the means."

The senators continued: "The [EPA] playbook includes several tools first employed in the 1997 process, including sue-and-settle arrangements with a friendly outside group, manipulation of science, incomplete cost-benefit analysis reviews, heavy-handed management of interagency review processes and capitalizing on information asymmetry—reinforced by resistance to transparency."

Remains 'intact'

The senators continued: "It appears that the agency is content to let the American people pay the price for Beale and EPA's scientific insularity—a price the EPA is still trying to hide almost 20 years later."

For Beale's successes in the 1997 NAAQS process, Beale was hailed as a hero at the agency, according to the report.

The Senate committee concluded with a comment from current EPA administrator Gina McCarthy: "John Beale walked on water at EPA."

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“This unusual culture of idolatry has led EPA officials to blind themselves to Beale’s wrongdoing and caused them to neglect their duty to act as public servants,” the senators wrote.

Those seeking current proof of that “culture” may want to consider a congressional investigation launched March 26 into the EPA’s Clean Air Scientific Advisory Committee (CASAC) Ozone Review Panel. The panel is tasked with reviewing EPA documents related to clean-air regulations and is intended “to have complete independence” from the agency, according to Texas Rep. Lamar Smith, who chairs the House Committee on Science, Space and Technology.

The EPA seeks to lower NAAQS in order to set more stringent air-quality standards, but the rule is projected to cost \$100 billion annually—making it one of the costliest in EPA history.

In a March 19 letter addressed to McCarthy, Smith said science advisors on the panel have received government grants and often peer review their own research. According to Smith, 16 of the 20 CASAC members are cited by the EPA in key regulatory science documents the panel is tasked with peer reviewing. The work of panel members is cited more than 700 times in these documents which panelists are asked to critically assess.

In addition, 15 of the 20 panelists are on the EPA’s payroll. According to a March 25 Washington Examiner report, “CASAC ozone review panelists received \$180.8 million in EPA grants.” The largest dollar amount of these grants went to panelist Ed Avol of the University of Southern California who received \$51.7 million, and the seven members of the ozone panel’s executive committee got \$80.2 million of the total from the EPA, the Examiner reported.

‘Beale Memo’

According to the Senate report, the techniques of the playbook were on full display in the “Beale Memo,” a confidential document that was leaked to Congress during a sue-and-settle agreement with the American Lung Association in 1997.

The deal established a compressed timeline to draft and issue particulate matter (PM) standards and the memo “revealed how [Beale] pressured the Office of Information and Regulatory Affairs to back-off its criticism of the NAAQS and forced them to alter their response to Congress.”

“EPA also brushed aside objections raised by Congress, the Office of Management and Budget, the Department of Energy, the White House Council of Economic Advisors, the White House Office of Science and Technology Policy, the National Academy of Sciences and EPA’s own scientific advisers—the Clean Air Science Advisory Committee,” the report noted.

The situation was further compounded by the agency’s “policy call” to regulate PM – ubiquitous tiny particles associated with the Earth’s atmosphere—and the reduction of which the EPA used to support both the PM and Ozone NAAQS.

“In doing so, the playbook also addressed Beale’s approach to EPA’s economic analysis: overstate the benefits and under-represent the costs of federal regulations,” the senators wrote. “This technique has been applied over the years and burdens the American people today, as up to 80% of the benefits associated with all federal regulations are attributed to supposed PM reductions.”

‘Secret science’

According to the report, the proffered health effects attributable to PM have never been independently verified. In the 1997 PM NAAQS, the agency justified the critical standards on only two data sets—the Harvard “Six Cities” and American Cancer Society (ACS II) studies.

“At the time, the underlying data for the studies were over a decade old and were vulnerable to even the most basic scrutiny. Yet the use of such weak studies reveals another lesson from EPA’s playbook: shield the underlying data from scrutiny,” the senators wrote.

In fact, the EPA continues to rely on the “secret science” within the same two studies to justify the vast majority of all Clean Air Act regulations issued to-date, the report noted.

“Even after the passage in 1999 of the Shelby Amendment, a legislative response to EPA’s secret science that requires access to federal scientific data, and President Obama’s Executive Orders on Transparency and Data Access, the EPA continues to withhold the underlying data that originally supported Beale’s efforts,” the senators added.

And after President Bill Clinton endorsed the 1997 NAAQS and the EPA celebrated their finalization, Beale became “immune to scrutiny or the obligation to be productive” for the remainder of his time at the agency, according to the report.

Cost and effect

According to the Institute for Energy Research (IER), U.S. refiners have spent \$128 billion since 1990 to comply with federal environmental regulations, which adds significantly to the costs of manufacturing refined products.

Historically, refiners have supported regulations that were clearly beneficial to the environment. But as environmental standards have tightened, “the cost to meet those standards has increased exponentially, threatening the competitiveness of American refineries in the global marketplace,” IER analysts wrote in a May 2012 analysis.

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The institute analysis cited Bill Klesse, former chairman of the National Petroleum and Refiners Association (now American Fuel & Petrochemical Manufacturers) and current Valero Energy CEO: “Over-regulation is not only likely to cause expansion of existing plants to slow down if not stop altogether, it could curtail improvements to those facilities.”

In the same report, Bob Greco, downstream and industry operations director at the American Petroleum Institute described what a balanced regulatory situation should look like:

“We must be sure that new regulatory proposals are necessary, properly crafted, practical and fair to allow U.S. refiners to remain competitive, preserve good paying refinery jobs and ensure our energy security.”

That should be true of all regulations, IER analysts said.

PG&E Charged By US In 2010 Pipeline Explosion

BLOOMBERG

PG&E Corp., owner of California's largest utility, was charged with 12 pipeline safety violations by the U.S. government for a 2010 natural gas explosion that killed eight people and left a crater the size of a house.

PG&E was charged in a grand jury indictment filed April 2 in federal court in San Francisco with knowingly and willfully violating the Natural Gas Pipeline Safety Act by failing to test and assess unstable pipelines to determine whether they could fail. The company was also charged with keeping incomplete and inaccurate records about the pipeline that exploded.

This is only the second time the federal government has criminally charged a company with pipeline safety violations since the law was enacted in 1968, said Carl Weimer, executive director of the Pipeline Safety Trust.

“One of the reasons you don't see them very often is it's pretty hard to prove that the company was knowingly breaking the law,” he said.

The incident in San Bruno, a city with 42,000 residents about 12 miles south of San Francisco, occurred on Sept. 9, 2010 when a natural-gas pipeline that was at least 54 years old, 30 inches in diameter, exploded. It sent a 28-foot section of pipe weighing 3,000 pounds flying through the air, fueled by blowing natural gas, according to a state report.

The maximum penalty for each charge is \$500,000 or a fine based on the gain the corporation made in violating the law or the loss to victims.

“The citizens of Northern California deserve to have their utility providers put the safety of the community first,” U.S. Attorney Melinda Haag in San Francisco said in an e-mail.

Based on faulty information about the San Bruno pipeline, PG&E chose a method of assessing its integrity that tested only for corrosion on the outside, not manufacturing or construction defects on the inside, according to the indictment.

“Pacific Gas and Electric Co. knowingly and willfully failed to gather and integrate existing data and information on a line, specifically Line 132, that could be relevant to identifying and evaluating all potential threats,” according to the indictment. Segments of Line 132 ruptured in the blast.

The company believes its employees didn't intentionally violate the pipeline safety law, it said in a statement.

Federal and state regulators investigating the blast determined that inadequate quality controls, deficient management and a corporate culture that emphasized profits over safety caused the accident, which has cost PG&E's shareholders \$1.4 billion in mandated safety work and other expenses.

A \$2.25 billion penalty for the explosion proposed by California regulatory staff could force the company into bankruptcy, the company has said.

Since the San Bruno accident, PG&E has replaced 127 miles of pipeline in its system, retrofitted 268 miles more to allow for in-line inspections and opened a “state-of-the-art” gas control center, the company said. The system has 6,750 miles of gas transmission pipe.

DCP Midstream Partners Completes Dropdown Acquisitions

DCP Midstream Partners LP completed the previously announced \$1.15 billion immediately accretive dropdown from the owner of its general partner, DCP Midstream LLC.

The transaction, which is subject to certain working capital and other purchase price adjustments, was financed at closing with proceeds from the partnership's recent equity and debt issuances. DCP Midstream received approximately 80% of the consideration in cash and approximately 20% in the Partnership's common units. DCP

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A one-third interest in the Southern Hills Pipeline was included in a \$1.15 billion dropdown deal between DCP Midstream Partners and its GP, DCP Midstream LLC. The Lockwood Pump Station in Humble, Texas, pictured above, helps this system achieve a capacity of 175,000 bbl/d. (Source: DCP Midstream)

Midstream will use the proceeds from this transaction to pay down short-term borrowings.

Included in the dropdown are the following:

- A one-third interest in the 720-mile, fee-based Sand Hills natural gas liquids (NGL) pipeline, transporting NGLs from both DCP and third party plants in the Permian Basin and Eagle Ford Shale to facilities along the Texas Gulf Coast and the Mont Belvieu market hub.
- A one-third interest in the 800-mile, fee-based Southern Hills NGL pipeline, providing NGL takeaway service from the Mid-continent to the Mont Belvieu market hub.
- The remaining 20% interest in the Eagle Ford system, bringing the Partnership's ownership interest to 100%.
- Lucerne 1, a 35 million cubic feet per day (MMcf/d) cryogenic natural gas processing plant located in the DJ Basin. The plant includes a long-term fee-based processing agreement with DCP Midstream providing a fixed demand charge, along with a throughput fee on all volumes processed.

"This is another great example of strong sponsorship and how the DCP enterprise is executing our growth for growth strategy," said Wouter van Kempen, chairman, president and CEO of DCP Midstream, and chairman and CEO of the partnership.

"The completion of this transaction provides the Partnership with diversity into new basins, now accessing the Permian Basin via Sand

Hills NGL pipeline and Granite Wash and SCOOP areas of the Mid-continent via Southern Hills NGL pipeline and grows our footprint in the prolific DJ Basin," said Bill Waldheim, president of the partnership. "These predominantly fee-based assets position the partnership well to provide sustainable distribution growth and long-term value to our unitholders."

The partnership also closed on Lucerne 2, a 200 MMcf/d plant which is currently under construction. Once in service, the plant includes a 10-year fee-based processing agreement with DCP Midstream providing a fixed demand charge, along with a throughput fee on all volumes processed. Lucerne 2 will be a deep-cut cryogenic, natural gas processing plant in the rapidly expanding, liquids-rich DJ Basin that is part of the growing Niobrara shale formation. Once in service, the Partnership will own approximately 50 percent of the 800 MMcf/d of total capacity in the DJ Basin owned and operated by the DCP enterprise. The Lucerne plants will be connected to the Front Range NGL pipeline for takeaway to the Mont Belvieu market hub. Lucerne 2 is expected to be placed into service in mid-2015. The partnership estimates additional expenditures of approximately \$180 million to complete this project, for a total estimated cost of \$250 million.

Azure Midstream Starts Up Fairway Processing Plant

Houston-based Azure Midstream Energy LLC, a gathering and processing company announced the completion and startup of its Fairway gas processing plant located in San Augustine County, Texas. The facility was built to handle increased volumes out of the James Lime formation in the Haynesville Shale.

The Fairway plant had an in-service date of March 17 and will recover NGL from the James Lime formation and return the dry residue natural gas into Azure's East Texas Gathering System for delivery into interconnections with Gulf South's 42-inch pipeline, Center-Point Energy Gas Transmission's 42-inch Line near Carthage, Gulf South's 30-inch pipeline at Milam and Azure's interconnection with the facilities of Natural Gas Pipeline Co. of America in Nacogdoches County, Texas. NGL recovered by the Fairway plant will be trucked to fractionation facilities located in East Texas, South Louisiana or Mont Belvieu for separation into purity products.

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Groups Sue To Halt Crude-By-Rail Shipments To Bay Area City

Earthjustice and other environmental organizations filed suit against Kinder Morgan and the Bay Area Air Quality Management District to halt the shipment of crude oil from the Bakken Shale into Richmond, Calif.

The suit, filed March 27 in San Francisco Superior Court, charges that the air district issued Kinder Morgan a permit to operate its crude-by-rail project in early February without any notice to the public and without conducting an environmental and health review. The suit asks the court to halt operations immediately while the project undergoes a review.

Members of the Richmond community said they did not know that a permit to transport crude oil had been issued for over a month.

TransCanada Secures Long-Term Commitments For ANR Pipeline

TransCanada Corp.'s ANR Pipeline system secured almost 2.0 billion cubic feet a day (Bcf/d) of firm natural gas transportation commitments on its Southeast Main Line (SEML) at maximum rates for an average term of 23 years. Approximately 1.25 Bcf/d will commence in 2014, with the remaining volume commencing in 2015.

Through a series of open seasons and working directly with customers, ANR secured contracts on available capacity on the SEML to move Utica and Marcellus shale gas to points north and south on the system. This includes most recently securing 600 MMcf/d as part of a reversal project on the SEML system. This project will enhance existing bi-directional flow capability that will allow more natural gas to move south to the Gulf Coast, where markets are experiencing a resurgence of natural gas demand for industrial use, as well as significant new demand related to natural gas exports from recently approved liquefaction terminals.

Global Petrochemical Prices Fell 1% In March

Prices in the \$3 trillion-plus global petrochemicals market fell 1% in March vs. February to \$1,371 per metric ton (/mt), according to the monthly Platts Global Petrochemical Index announced on the sidelines of the international petrochemical conference of the American Fuel & Petrochemical Manufacturers (AFPM) in San Antonio. The index is a benchmark basket of seven widely used petrochemicals.

Price losses in the global petrochemical markets reflected price declines in world crude oil markets. Also tugging on prices was naphtha—a primary raw input for petrochemicals and one which tends to establish the value of olefins, polymers and other products. Expressed as a monthly average, naphtha prices fell just less than \$1 per metric ton last month.

Targa Resources Announces New Growth Projects

Targa Resources Partners LP announced preliminary results for the first quarter of 2014, operating and financial outlook for 2014 and an update on 2014 growth capital expenditures including new growth projects.

Targa expects adjusted EBITDA of approximately \$210 million. Increased LPG export activity, higher commodity prices and improved performance across the partnership's businesses during the first quarter contributed to preliminary adjusted EBITDA being approximately 60% higher than the first quarter of 2013.

The partnership estimates adjusted EBITDA for 2014 will be approximately \$820 million to \$880 million. The strength of the LPG export market and operational results at the facility since the first phase of the partnership's export expansion project came online in September 2013 have resulted in the expectation that the partnership will benefit from a higher level of LPG export activity in 2014 than was previously contemplated.

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At the same time, other parts of the partnership's business segments have performed in line or exceeded assumptions used for 2014 adjusted EBITDA estimates provided previously. There has been no change to the partnership's assumption for average commodity prices of \$3.75 per MMBtu for natural gas, \$95 per barrel for crude oil and \$0.90 per gallon for the partnership's NGLs for 2014. Under these assumptions, a \$0.05 change in the weighted average price of the partnership's typical NGL gallon would correspondingly change 2014 adjusted EBITDA by approximately 1%.

Crestwood Announces Permian Expansion Project

BUSINESS WIRE

Crestwood Midstream Partners LP plans a further expansion of its "Willow Lake Project" in the Permian Delaware Basin, which includes the conversion of a portion of its Las Animas natural gas gathering system into rich gas service and the construction of an initial cryogenic natural gas processing plant.

The Willow Lake Project, in Eddy County, New Mexico, was originated in 2013 (Phase 1) through the conversion of an existing Crestwood gathering pipeline and installation of NGL field separation equipment to support the drilling efforts of Legend Natural Gas III, LP, a subsidiary of Legend Production Holdings LLC, a Riverstone Holdings LLC portfolio company, targeting the Second Bone Spring formation along with other producers in the region.

Based on Legend's successful 2013 drilling program, Crestwood and Legend entered into a 10-year, fixed-fee gas gathering and processing agreement covering an area of mutual interest of more than 107,000 acres in the Willow Lake area. Additionally, Crestwood purchased Legend's existing gas gathering system which is being integrated into Crestwood's existing footprint.

Anchored by the Legend contract, Phase 2 of Crestwood's Willow Lake Project will include construction of a cryogenic natural gas processing facility with a capacity of 20 MMcf/d and additional gathering pipelines across the dedication area to support Legend's 2014 and 2015 drilling program. Upon completion of the Willow Lake Plant, and based on area drilling activity and discussions with current operators, Crestwood is expected to further expand (Phase 3) the Willow Lake gathering system and install a second gas processing plant, the Delaware Ranch Plant, with an expected capacity of approximately

120 MMcf/d. The Delaware Ranch Plant is currently owned by Crestwood as a result of its 2012 acquisition of Devon's West Johnson County gathering system and processing plant located in the Barnett Shale region.

Phase 2 of the Willow Lake expansion plan is estimated to cost \$25 million to \$30 million and is expected to be completed in the third quarter of 2014. Phase 3 of the development plan will be initiated when additional producers drill sufficient wells to warrant the additional processing capacity. As an additional service to area producers, Crestwood will be purchasing the NGL produced at the plants which may include initial trucking, pipeline and marketing services.

Magellan Midstream To Construct Condensate Splitter

Magellan Midstream Partners L.P. plans to construct a condensate splitter at its terminal in Corpus Christi, Texas, under a fee-based, take-or-pay agreement with Trafigura AG. The project also includes construction of more than 1 million bbl of storage, dock improvements and two additional truck rack bays at Magellan's terminal as well as pipeline connectivity between Magellan's terminal and Trafigura AG's nearby facility.

The splitter will be capable of processing 50,000 bbl/d of condensate, fully supported by a long-term commitment from Trafigura AG. If warranted by additional demand, Magellan could construct an additional 50,000 bbl/d splitter at this facility.

Magellan expects the condensate splitter and related infrastructure to cost approximately \$250 million and to be operational during the second half of 2016, subject to receipt of necessary permits and authorizations.

Fire, Explosion At Williams' LNG Storage Facility

Williams Cos. reported a fire and explosion at its Northwest Plymouth LNG storage facility in Plymouth, Wash., at 8:22 a.m. Pacific time on March 31. The incident, which injured five workers and caused an estimated 300 residents in a 2-mile radius of the facility to be evacuated, involved one of the two storage tanks at the site.

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As of April 1, residents were allowed to return to their homes and the company was still investigating the incident, but had determined it was not due to a pipeline explosion, but within the LNG tank. “We believe that only natural gas was released and it evaporated into the atmosphere. There is no hazardous vapor drifting toward residents in the area,” the company said in a release.

The injured workers were taken to Good Shepherd Medical Center in Hermiston, Ore., where they were treated for non-life threatening burns, a hospital spokesperson told the Associated Press.

The facility includes two tanks with 1.2 Bcf of storage capacity each, with each tank estimated to be one-third full, Williams said. The Northwest Pipeline’s connection to the plant was shut down, but volumes are still being moved along other sections of the 3,900-mile system, which runs through Washington, Oregon, Idaho, Wyoming, Utah and Colorado. No customers have been impacted.

Double Eagle Makes Way For New CEO, New Name

BY **DARREN BARBEE** | HART ENERGY

Double Eagle Petroleum Co. is shaking things up, starting with its name.

Effective April 1, the company became known as Escalera Resources Co. with common stock trading under the ticker ESCR and preferred stock under the symbol ESCR.P.

The change coincides with the appointment of industry veteran Charles F. Chambers as chairman and CEO. He succeeds Richard D. Dole, who will become vice chairman of the board.

“The board of directors felt the name change was an essential step in the repositioning of the company for future growth as we look to expand beyond our traditional role of onshore, domestic natural gas,” the company said in a statement.

The company said it also has new interest internationally and with midstream opportunities that are currently being actively pursued. The company’s international subsidiary will focus on upstream and midstream international opportunities, first in Central Asia and later in Africa.

Although Double Eagle had an encouraging Sandwash Basin well in February 2013, believed to be the first Niobrara production within 20 miles, the company has some challenges ahead.

Production in 2013 totaled 9.2 billion cubic feet equivalent (Bcfe), a 12% decrease from 2012.

The company also reported March 12 a net loss attributable to common stock of \$16.79 million, or \$1.48 per share for 2013 compared with a net loss of \$14.05, or \$1.25 per share for 2012. For the year, revenues decreased 2.6% from the sale of oil and gas.

Escalera recorded impairment charges, related to its Niobrara exploration well, totaling \$4,812,000 during the year ended Dec. 31, 2013.

On March 25, the company announced a private placement of its common stock for \$4,825,000, the net proceeds of which will be used to fund working capital needs and other general corporate purposes.

Chambers said the company is a perfect platform to bolt on new opportunities for substantial growth.

“We are already in discussions with several top industry players to join the company and support our growth and are already focusing on several potential new projects,” Chambers said.

Chambers has worked in the upstream oil and gas industry for 40 years. Most recently, he was the managing director of Castleton Commodities International LLC’s oil and gas business, where he was responsible for managing upstream business activities with a focus on building a domestic natural gas portfolio. He previously held various positions at Rosetta Resources Inc., including CEO.

Escalera will have offices in Houston, Denver and Casper, Wyo.

SNAPSHOT | Industry Insight

Meeting The Changing Demands Of Large-Scale Projects

MARK ANDERSON, SPECIAL TO HART ENERGY

The economics of the oil and gas industry seem pretty simple at face value:

1. Find your commodity of choice in the ground;
2. Dig a hole and suck it out;
3. Turn it into something useful; and
4. Sell it.

It's not quite that simple, and there are a few unprecedented issues that oil and gas companies face today that never would have been imagined 30 years ago—or even five years ago.

For the past three to four decades there has been a steady hum from “peak oil” prognosticators predicting the end of fossil fuels. Gone are the days of Jed Clampett and the Beverly Hillbillies hunting for dinner, missing the possum and shooting a hole in the ground resulting in a gushing fountain of black gold. You can't just poke a hole in the ground, cross your fingers and hope for the best these days.

Luckily, as easy-to-find oil becomes less available, new methods of extraction have come to the forefront. With oil sands and shale oil and gas projects coming online, increased oil production has come from the exploitation of previously unreachable locations. Suddenly there's an enormous new supply of resources, with no end in sight. The cost of extracting product using unconventional methods has dropped substantially, making these projects economically feasible. Oil and gas are showing up in places and at a scale that the general public would never have imagined. Great news, right? Yes, but...

Midstream blues

In the U.S. and Canada, we suddenly have a great deal of product, with few avenues to get it to market. Landlocked pools of oil and gas are showing up in places where the supply is pushing the limit and putting massive pressure on the existing midstream infrastructure. Add to this a massive reduction in refineries over the past few decades, and companies are suddenly in a situation where they have lots of product to sell, customers willing to pay, but no way to deliver the product. From a 30,000-foot view it's no big deal—just build a bunch of midstream facilities and pipelines and away you go!

Unfortunately it's not quite that easy. Projects take time to get up and going. It's not unusual to see a pipeline project, for example, take five to eight years or more to get through permitting and construction.



As the construction portfolio for midstream companies grows, it's becoming increasingly important to have a robust project-controls system in place to manage this growth.

And that's assuming the project gets the regulatory green light at all (Keystone XL and Enbridge Gateway pipelines are prime examples). More challenges include the scale and capital expense of a large project while commodity prices are under pressure from the glut of product and an inability to get product to market. We have a chicken and egg scenario on our hands that would make your head spin. Companies are faced with an interesting conundrum: If we build it, we'll get higher prices, but we can't afford to build it until we get higher prices.

The good news is that many great companies do make their way through the miasma of economic and regulatory hurdles, and there are many midstream projects in the pipeline (pun intended) right now.

The blues continue

The pressure to get things built is causing a number of unique problems. Many midstream companies are growing at an unprecedented rate to address the increased demand for the construction of new pipelines and facilities while dealing with all the inherent human resources issues and growing pains. As part of the rapid growth, they are facing larger, more complicated projects and far more concurrent projects.

Understandably, they are faced with a level of project-controls sophistication that their legacy tools and processes just can't handle.

So here's the situation and what they may be facing today:

Project controls pain

Many companies are facing a situation where their IT infrastructure for project controls just isn't scalable to meet the increased demand of dealing with a very large project or a portfolio of complex projects running at the same time. Often midstream organizations have

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grown up with homegrown systems and error-prone spreadsheets. This was acceptable with just a few small projects, but things begin to unravel as organizations scale and add more users, add more projects and increase project complexity.

People pain

Along with rapid growth comes a need for more qualified people. Many companies are having difficulty staffing their projects with in-house expertise and being forced to sub-contract or “rent” man power. Capturing costs with so many people, not to mention so many “new” contracts, can cause massive headaches, as each company has different cost rates and cost codes, which need to be tracked to a specific project. Excel-based cost capture tools can’t keep up with the increased load. It’s not uncommon for subcontractors or “rented” expertise to wait months and months for their timesheets, invoice payments and paychecks, which understandably creates a stressful environment for all parties involved.

Process pain

Lack of auditability and ownership of information is yet another concern that comes up when dealing with conflicts, particularly in the case of joint ventures where many stakeholders are involved, often with conflicting interests. Change orders are almost always expected with projects of this magnitude, and without proper records of transactions, commitments and approved changes, the projects can spin out of control very quickly.

Communication pain

Progress reporting is another serious concern. Many companies have traditionally managed their reporting requirements using their legacy systems. With an increasing number of projects on the go, many companies find themselves overwhelmed. It’s not unusual for an average-sized company to have 15 to 20 projects at the same time, including plants, processing units and pipelines. These legacy systems do not provide enough visibility at the project level, and

they lack a means to complete a meaningful roll-up of information at the portfolio level.

This lack of visibility leaves project executives trying to make informed decisions using incomplete information. This leads to cost overruns and late work at the project and corporate level.

Most organizations also face difficulty with patchwork systems within their IT ecosystem, which results in project information silos and no one having access to the complete picture. As a result, these information pockets may satisfy the needs of an individual department, but from an overall project-execution perspective, make it extremely difficult to get the right information at the right time to the right people to make the best decisions.

Faced with so much pain, what’s a company to do?

The answer

The reality is that the most effective approach to address these various “pains” is to adopt a robust commercial project-controls system. Many are cloud-based and do not require IT departments to add more hardware or infrastructure.

These systems allow full integration across business units providing sub-project, project and portfolio level visibility through standard reports and integrated dashboards. They can be ideal for clients with a variety of projects at different locations, helping to ensure that both project teams and executive management get the information they require as they need it.

Here are the potential benefits from use of a project-controls system: ROI increase of existing investments;

- Project-communication improvement;
- Real-time visibility for all parties;
- Automation and standardization of numerous business processes; and
- Assist in the delivery of on-time, on-budget projects, with fewer errors and far less headaches.

Mark Anderson is responsible for business development at Coreworx, which provides integrated project information and cost control solutions for large capital projects in the oil and gas, power and mining sectors.

LEAD STORY | From The Front

Continued from **Page 1** would increase crude production, add jobs and create significant economic benefits. “Current restrictions on the export of crude oil, developed at a time [1973] when U.S. oil production was in decline, limit the U.S.’ ability to efficiently use crude oil supplies,” the report said.

Although these findings aren’t that surprising given that the report was commissioned by the API, one of the industry’s largest trade associations, the key takeaway was that crude production from these shale plays doesn’t match the refining infrastructure currently in place in the U.S.

“Historically, U.S. refiners were adapted to process heavier crude oil. However, the new and growing U.S. production is primarily light crude oil and lease condensate. Thus, there is a mismatch between U.S. refinery capabilities and the country’s newfound supply,” the report said.

While refineries are expected to make adjustments to handle lighter supplies, without an export market for this lighter stock, there will be a significant glut of product. Recently this supply overhang has led to price discounts for U.S. light crude prices compared to international benchmarks.

Alleviating this bottleneck would create a strong incentive for producers to spend up to \$70.2 billion on E&P activities between 2015 and 2020 and lead to an estimated 110,000 to 500,000 barrels per day (bbl/d) increase in production by 2020. This could create up to 300,000 jobs in 2020 with the biggest gains being posted in the consumer products and services and hydrocarbon production sectors.

In turn, this would cause petroleum prices to decrease by up to 2.3 cents per gallon with a 3.8 cents per gallon decline in 2017. “These price decreases for gasoline, heating oil and diesel could save American consumers up to \$5.8 billion per year, on average, over the 2015 to 2035 period,” the report said.

All told, the report estimates that crude exports could help the U.S. GDP increase by \$38.1 billion, including \$13.5 billion in federal, state and local tax receipts attributed to exports, in 2020 with increased consumer product spending as consumers spend less on energy. Additionally, the U.S. trade deficit could experience a reduction by \$22.3 billion in 2020.

Arguments that crude exports would dramatically increase gasoline prices in the U.S. are unwarranted, according to the report, since the country currently allows the import and export of petroleum products,

which results in the U.S. market following international market dynamics regardless of any domestic and foreign crude price differentials.

The report found that historically, West Texas Intermediate (WTI) crude prices traded at a slight premium to Brent crude with an average positive price differential of \$1.30 per gallon between 1983 and 2008. This differential became more volatile in 2008 when the recession hit and plunged to an average discount of \$17 per bbl. in 2011 and 2012 due to the bottleneck at the Cushing, Okla., hub.

“Expanding flexibility to export crude oil would allow refiners to operate more efficiently, running heavy crude oil, while the export of light crude oil is expected to modestly reduce international oil prices and, by extension, U.S. gasoline and diesel prices,” the report said.

Regulatory and legislative momentum

There appears to be more traction toward a partial lift of the U.S. ban as more regulators and legislators are investigating the matter. On April 1, the U.S. Senate Subcommittee on Terrorism, Nonproliferation and Trade held a hearing titled, “The Crude Truth: Evaluating U.S. Energy Trade Policy.”

Kenneth B. Medlock III Ph.D, senior director, Center for Energy Studies, James A. Baker III Institute of Public Policy, agreed with the API report’s assertion that since gasoline can be exported already, the price of domestic gasoline converges to a value reflecting a fully arbitrated international price.

“Effectively, the constraint on crude oil exports moves the arbitrage opportunity downstream. This is not a groundbreaking result. Rather, it is exactly what constraints do. They secure rents in certain parts of the value chain by limiting market responsiveness,” he said during testimony at the hearing.

He added that while the spread between WTI and Brent prices is not driven by the crude export ban, it is a direct indication of what will happen in the event of a physical constraint on the ability to trade. “Another point of evidence of a binding constraint can be seen in the higher volatility of the spread between U.S. gasoline prices and WTI. This volatility emerges because once the binding constraint is realized; any movement in demand is revealed through an exacerbated price movement for oil but not for petroleum products. If exports reduce the price of crude internationally, then domestic gasoline prices should fall. The question then becomes, is the current ban on oil exports worth it?”

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