

The State Of Enterprise's ECHO Storage Terminal

As crude storage begins to quickly dwindle, where does the project stand today?

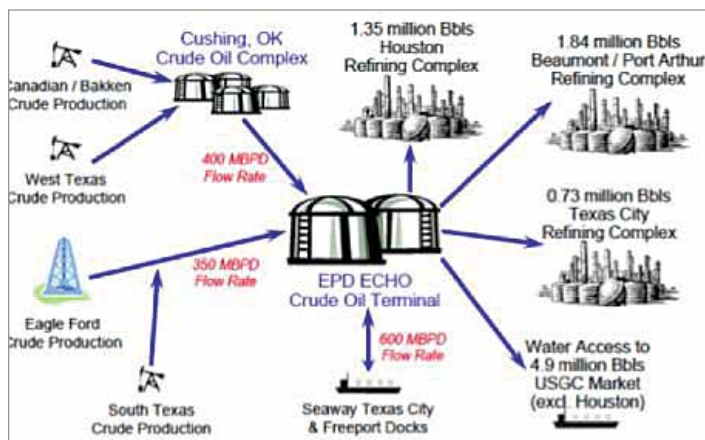
BY **JENNIFER GIAMBI** | ASSISTANT EDITOR, MIDSTREAM BUSINESS

The unprecedented rise in domestic crude oil production has created tremendous change for the U.S. Gulf Coast refining market, including an advantageous position for some midstream logistics companies.

With U.S. domestic production at 7 million barrels (bbl.) per day, as well as increased Canadian production, there's an increasing flood of inland crude creating a bottleneck at the Cushing, Oklahoma, trading hub that needs alleviation. Many in the industry anticipate a host of pipeline projects will bring more than 3 million bbl. per day from Cushing and South Texas to the Gulf Coast, helping relieve the crude oil stockpile.

But it is possible "the Cushing backlog will essentially just transfer to Houston," Sandy Fielden, director of analytics at RBN Energy, tells Hart Energy.

And, Fielden says, terminal operators are currently expanding or building storage terminals equipped with nearly 19 million bbl. of capacity.



INTERCONNECT | ECHO will link growing oil supplies from inland U.S., Canada and the Gulf of Mexico, plus waterborne imports with Gulf Coast refineries. Source: Enterprise Products Partners LP

"Some facilities are older, some are new. Some are in Houston and some are in Louisiana," he says. "They are all trying to address the same issue. Someone is going to need to redistribute the incoming crude, and there is a lot of money to be made if they are in the right place."

Aiming to capitalize on this expected demand, Enterprise Products Partners LP is in the midst of con-

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HIGHLIGHTS FROM TODAY'S EDITION



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Prices remain stable

Prices moved in opposite directions for the second time in as many weeks.

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Tesoro to build DDU

The DDU facility will convert feedstocks into ULSD at two refineries.

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Crude production is expected to immensely in the next five years and rail is expected to help curb the bottleneck.

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Despite a modest economic impact, analysts expect a positive GDP impact in years to come.

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NGL PRICES & FRAC SPREAD | Week in Review

NGL Prices, Margins Move In Opposite Directions

BY **JENNIFER GIAMBI** | ASSISTANT EDITOR, MIDSTREAM BUSINESS

After bouncing back the week of May 17, natural gas liquid (NGL) prices remained fairly stable May 22 as the shoulder season continues to trudge ahead, placing a bit of downward pressure on NGL prices. But both hubs saw slights upward moves from both propane and ethane alike.

Despite the lack of heating demand and rising stock levels, propane prices dropped only slightly due to the continued strong support from liquefied petroleum gas exports. The Mont Belvieu price fell 5% to 92¢ per gallon (/gal), its lowest level since it was

CURRENT FRAC SPREAD (CENTS/GAL)				
June 3, 2013	Conway	Change from Start of Week	Mont Belvieu	Last Week
Ethane	21.25		28.50	
Shrink	26.59		27.78	
Margin	-5.34	3.57%	0.72	-4.38%
Propane	86.75		92.00	
Shrink	36.73		38.38	
Margin	50.02	-3.05%	53.62	-5.22%
Normal Butane	116.25		124.25	
Shrink	41.58		43.45	
Margin	74.67	0.41%	80.80	-2.87%
Isobutane	118.00		127.00	
Shrink	39.94		41.73	
Margin	78.06	0.45%	85.27	0.15%
Pentane+	198.75		201.00	
Shrink	44.47		46.47	
Margin	154.28	-3.06%	154.53	-3.68%
NGL \$/Bbl	36.55	-1.05%	38.89	-1.30%
Shrink	14.65		15.31	
Margin	21.91	-2.05%	23.59	-3.59%
Gas (\$/mmBtu)	4.01	0.50%	4.19	2.44%
Gross Bbl Margin (in cents/gal)	49.22	-2.13%	53.75	-3.69%
Gross Bbl Margin (in cents/gal)				
Ethane	1.17	1.58%	1.57	2.26%
Propane	3.01	-1.58%	3.19	-2.17%
Normal Butane	1.26	0.44%	1.34	-1.07%
Isobutane	0.73	0.47%	0.79	0.89%
Pentane+	2.56	-2.29%	2.59	-2.33%
Total Barrel Value in \$/mmbtu	8.73	-0.92%	9.49	-1.10%
Margin	4.72	-2.10%	5.30	-3.74%

NGL PRICES						
Mont Belvieu	Eth	Pro	Norm	Iso	Pen+	NGL Bbl
May 22 - 28, '13	28.50	92.00	124.25	127.00	201.00	\$38.89
May 15 - 21, '13	27.87	94.04	125.60	125.88	205.80	\$39.41
May 8 - 14, '13	27.98	94.92	122.94	125.50	209.53	\$39.63
May 1 - 7, '13	28.87	94.42	123.12	124.90	205.76	\$39.45
April '13	28.58	93.99	131.09	135.73	205.91	\$40.07
March '13	27.95	89.66	141.09	145.14	212.62	\$40.69
1st Qtr '13	25.68	86.42	157.72	166.41	222.63	\$42.07
4th Qtr '12	26.59	88.74	162.76	181.71	215.67	\$42.69
3rd Qtr '12	32.34	89.27	142.76	161.88	200.54	\$41.03
2nd Qtr '12	37.00	97.80	160.76	175.08	207.57	\$44.54
May 23 - 29, '12	35.58	84.38	153.90	170.13	201.18	\$41.79
Conway, Group 140	Eth	Pro	Norm	Iso	Pen+	NGL Bbl
May 22 - 28, '13	21.25	86.75	116.25	118.00	198.75	\$36.55
May 15 - 21, '13	20.92	88.14	115.74	117.45	203.40	\$36.94
May 8 - 14, '13	21.74	89.08	116.72	114.33	210.98	\$37.67
May 1 - 7, '13	22.14	87.32	115.32	115.05	207.34	\$37.22
April '13	22.05	87.03	123.12	129.73	216.88	\$38.62
March '13	25.29	85.20	134.11	143.21	217.48	\$39.91
1st Qtr '13	23.94	81.81	153.43	160.39	222.63	\$41.11
4th Qtr '12	18.45	79.24	164.46	174.39	209.16	\$39.94
3rd Qtr '12	14.60	70.25	124.35	165.61	195.68	\$34.99
2nd Qtr '12	11.18	72.63	135.80	161.38	203.31	\$35.72
May 23 - 29, '12	12.50	65.78	134.08	151.25	199.05	\$34.47

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

(Left) Price, Shrink of 42-gal NGL barrel based on following: Ethane, 36.5%; Propane, 31.8%; Normal Butane, 11.2%; Isobutane, 6.2%; Pentane+, 14.3%; Fuel, frac, transport costs not included. Conway gas based on NGPL Midcontinent zone, Mont Belvieu based on Houston Ship Channel.

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

91¢/gal the first week of April. The Conway price decreased 3% to 86¢/gal, the first dip in value in nearly two months.

Ethane prices took a more interesting turn, moving in opposite directions. Conway prices improved by more than 3% to 21¢/gal, a sign that the market is rebalancing from the tumble it took a few weeks ago. But, Mont Belvieu ethane took a dive, dropping 4% to 29¢/gal. The market has been plagued by steam cracker outages—the predominate demand source for ethane—reducing demand significantly.

NGL PRICES & FRAC SPREAD | Week in Review

Pentanes-plus (C₅₊) also took a hit this week, experiencing a price drop at both hubs, falling 3% to \$1.98/gal at Conway—its lowest price since October 3, 2012— and dropping nearly 4% to \$2.01/gal at Mont Belvieu.

Butane took a page out of ethane’s book and moved in opposite directions at the hubs for the second time in as many weeks, but only slightly. This week as the Mont Belvieu price decreased 3% to \$1.24/gal, the Conway price increased less than 1% to \$1.17/gal. Isobutane was the only relatively stable NGL at both hubs with the Conway price remaining unchanged with a slight increase of less than 1% to \$1.18/gal. Mont Belvieu isobutane barely moved remaining at \$1.27/gal.

Frac spread margins were on par with last week, thanks, in part, to less than the 1% price gain for natural gas. The theoretical NGL bbl. price fell 1% at Conway to \$36.55/bbl. with a 2% drop in margin to \$21.91/bbl., while the Mont Belvieu bbl. price dropped 1% to \$38.89/bbl. with a 3% drop in margin to \$23.59/bbl.

The most profitable NGL to make at both hubs was C₅₊ at

KEY NORTH AMERICAN HUB PRICES	
2:30 PM CST / May 30, 2013	
Gas Hub Name	Current Price
Carthage, TX	4.06
Katy Hub, TX	4.09
Waha Hub, TX	4.03
Henry Hub, LA	4.12
Perryville, LA	4.09
Houston Ship Channel	4.12
Agua Dulce, TX	3.59
Opal Hub, Wyo.	3.94
Blance Hub, NM	3.95
Cheyenne Hub, Wyo.	3.96
Chicago Hub	4.20
Ellisburg NE Hub	3.96
New York Hub	4.33
AECO, Alberta	3.63

Source: Bloomberg

and hovered around the \$4.00 per million Btu range. After nearly a decade of fluctuation, natural gas prices are expected to stabilize, partly due to U.S. gas exports. According to Barclays Capital “Energy Research Outlook” report, gas prices surged after news broke that the U.S. Department of Energy announced its approval

\$1.54/gal at Conway and \$1.55/gal at Mont Belvieu. This was followed, in order, by isobutane at 78¢/gal at Conway and 85¢/gal at Mont Belvieu; butane at 74¢/gal at Conway and 80¢/gal at Mont Belvieu; propane at 50¢/gal at Conway and 54¢/gal at Mont Belvieu; and ethane at negative 5¢/gal at Conway and 1¢/gal at Mont Belvieu.

Again this week, natural gas prices remained relatively strong

RESIN PRICES – MARKET UPDATE – MAY 30, 2013					
TOTAL OFFERS: 19,397,848 lbs		SPOT		CONTRACT	
Resin	Total lbs	Low	High	Bid	Offer
LDPE - Inj	2,936,876	0.65	0.76	0.685	0.725
LDPE - Film	2,524,760	0.65	0.755	0.69	0.73
PP Homopolymer - Inj	2,389,944	0.665	0.775	0.69	0.73
PP Copolymer - Inj	2,275,932	0.68	0.755	0.71	0.75
HDPE - Inj	2,233,932	0.655	0.73	0.645	0.685
HDPE - Blow Mold	2,101,380	0.64	0.73	0.635	0.675
LLDPE - Film	2,050,644	0.67	0.73	0.645	0.685
LLDPE - Inj	1,011,644	0.67	0.78	0.645	0.685
GPPS	760,000	0.91	0.93	0.86	0.91
HIPS	760,000	1.01	1.02	0.98	1.03
HMWPE - Film	352,736	0.69	0.7	0.675	0.715

Source: Plastics Exchange – www.theplasticsexchange.com

of Freeport LNG’s application to export liquefied natural gas to countries that do not have a free trade agreement with the U.S.

“The balance of 2013 gained 6% week over week, while calendars 2017-20 gained 8% on average for the week announced,” according to the report. “We caution that there could be further rallying of prices for calendars 2017 and 2018 if more approvals are announced,” according to the report.

Gas prices are also getting a boost from increased demand and exports to Mexico, according to Barclays “U.S. Natural Gas Focus” report.

“Exports of U.S. gas to Mexico have doubled in the past three years,” the report added. “Continued growth of Mexican gas demand, coupled with a wave of pipeline capacity expansions, promises to siphon increasing amounts of gas from the US.”

According to the Energy Information Administration, natural gas storage levels rose 88 billion cubic feet to 2.141 trillion cubic feet (Tcf) the week of May 24 from 2.053 Tcf the previous week. This was 23% below the 2.805 Tcf figure posted last year at the same time and 4% below the five-year average of 2.229 Tcf.

The National Weather Service’s forecast for this week anticipates much warmer-than-normal temperatures throughout the East Coast as well as the West Coast. This is in sharp contrast to the anticipated cooler-than-normal temperatures throughout the Midwest and Gulf Coast.

PROCESSING TRENDS | An Inside Look

Tesoro To Build DDU For BP Refinery Takeover

BY JACK PECKHAM | HART ENERGY

Tesoro Logistics LP will build a single-distillate desulfurization unit (DDU) for converting various feedstocks into ultra-low sulfur diesel (ULSD) fuels at both its Wilmington, California, refinery, with a capacity of 97,000 barrels (bbl.) per day, as well as the adjacent 266,000-bbl.-per-day Carson, California, refinery it just acquired from BP.

Tesoro said it paid BP \$1.075 billion for the Carson refinery plus some 800 retail fuel stations, a cogeneration plant and a coke-calcining operation. The deal also requires Tesoro to pay roughly \$1.3 billion for hydrocarbon inventories.

The agreement to build a DDU was a key part of a May 17 agreement with California Gov. Jerry Brown (D), the California Energy Commission and the California Attorney General, in order to win regulatory approval for the BP refinery acquisition.

The U.S. Federal Trade Commission simultaneously announced that it also approved Tesoro's acquisition of the BP refinery.

"Tesoro has stated that the [BP Carson refinery] acquisition will enable it to achieve significant synergies, some of which will benefit the environment by lowering greenhouse gases and emissions," according to the California Attorney General's official letter explaining her approval of the BP refinery acquisition.

"Specifically, Tesoro has stated that the acquisition will enable it to install a single-DDU for both the Carson and Wilmington refineries.

"The California Air Resources Board [CARB] has studied this issue and has concluded that the installation of a DDU for the combined facility would result in a reduction of emissions and greenhouse gases.

"Additionally, Brown sent a letter to Tesoro on April 8, 2013, stressing the importance of installing a DDU should the acquisition proceed.

"Tesoro has committed to provide [the Attorney General's] office with an annual progress report detailing the steps it has taken to realize the synergies resulting from the acquisition, including the installation of a DDU, so that we can monitor its commitments to lower greenhouse gases and emissions."

The Attorney General also noted that both the Carson and Wilmington refineries employ fluid catalytic cracking (FCC) to



BIG DEAL | Tesoro said it paid BP \$1.075 billion for the Carson refinery plus some 800 retail fuel stations, a cogeneration plant and a coke-calcining operation.

convert gasoil into intermediates. "The FCC units produce much lower cracking yields and result in higher emissions and greenhouse gases than a DDU," according to the Attorney General.

Abengoa To Build Gasification-WTE Plant In Arizona

BY JACK PECKHAM | HART ENERGY

Spain-based renewable-energy project developer Abengoa announced that it plans to build a 15-megawatt (MW), gasification-based, waste-to-energy (WTE) plant in Glendale, Arizona.

Chicago-based renewable-energy project developer Vieste Energy is investing in the \$110-million project.

"Under contract to Vieste Energy, Abengoa will undertake the design and construction of the plant and its subsequent operation and maintenance for a period of 30 years," Abengoa said.

"Abengoa will not maintain an interest in the assets it constructs. The construction period will last for about 20 months," according to the company.

"The project includes the receipt, sorting and recycling of up to 180,000 tons of municipal solid waste (MSW) per year. A gasification based process will be utilized that will allow the maximum use of MSW fractions.

"Up to 350 tons of gas will be produced each day, which will be used to generate 15 MW of electricity. The material process-

PROCESSING TRENDS | An Inside Look

ing portion of the project has commenced with the balance of the project following shortly behind.

“Abengoa has worked for years on developing a solution that simultaneously solves the efficient management of MSW, is environmentally friendly, is sustainable and produces energy in a sustainable way.

“Abengoa’s solution is not limited to the organic fraction of municipal solid waste treatment, but also allows the use of other components, both recyclable and non-recyclable waste plastics, by using different technologies to obtain biodiesel and energetic valuation for the steam and electricity generation.

“Recently, the company has started operating its first demonstration plant with ‘waste to biofuels’ technology in Salamanca, Spain. This plant has a capacity to process 25,000 tons of MSW to produce up to 1.5 million liters of bioethanol suitable as fuel.

“With this new project, Abengoa consolidates its leadership in the development of technological solutions that increase the recovery rate of recyclable material from MSW, utilize a resource that otherwise would be disposed of, and minimize the environmental footprint, thereby creating huge benefits for society,” according to the company.

Explaining more about its gasification-based waste-to-energy process, Hoskinson Group Technology, the third-party licensor, said:

“A full capacity bypass stack is provided around the entire air pollution control system, including the ID fan. This permits emergency shutdown of the plant in the event of a total power failure, or a serious malfunction.

“The main stack (SCR stack) contains continuous monitoring equipment is the exit point for the cleaned air leaving the plant.

“At the end of the gasification process, a small amount of vitrified and inert ash drops into a specially designed water-filled auger system below the primary chamber, which cools the ash and delivers it to containers for final disposition. The sand-like vitrified ash is safe and is suitable for use as landfill cover or potentially as an aggregate in embankments or asphalt products,” according to Hoskinson.

Site Plan Approved for North Dakota Gas Processing Plant

ONEOK Partners LP’s subsidiary ONEOK Rockies Midstream has received approval to start construction of a natural gas processing plant in northwestern North Dakota, according to Fuel Fix.

The plant will cost \$160 million and be able to process 100 million cubic feet of natural gas per day.

The company already has one natural gas processing plant near Watford City, North Dakota, Fuel Fix added, and another under construction.

Audubon Announces Dominion Liquefaction Contract

Audubon Engineering has been named owner’s engineer for the proposed Dominion Cove Point liquefied natural gas construction project in Lusby, Maryland. Adding liquefaction capabilities will transform the existing facility into the first LNG export terminal on the East Coast.

Subject to regulatory approvals, construction will begin at Cove Point in 2014 with the liquefaction facilities in service by 2017.

Caballo Brings Cryogenic Processing Plant Online

Caballo Energy LLC’s Carmen Gas Processing Plant in Alfalfa County near Carmen, Oklahoma, is now online, the company announced. The plant has the capacity to process 60 million cubic feet (MMcf) of natural gas per day bringing Caballo’s total processing capacity in the region to approximately 100 MMcf per day.

The Carmen plant serves natural gas production in the Mississippi Lime and Cana Woodford shale plays. According to a company release, long-term dedications to the plant total more than 125,000 acres, and the plant is currently operating at 80% of its total capacity.

At the 160-acre site, Caballo is evaluating the addition of a second cryogenic processing plant, which could give the Carmen location a processing capacity of 220 MMcf per day by June 2014, the company said.

The new Carmen plant and Caballo’s existing Eagle Chief plant in Alfalfa County, Oklahoma, serve the company’s Eagle Chief system, which includes more than 600 miles of natural-gas-gathering pipelines and compression facilities located in Alfalfa, Blaine, Garfield, Major and Woods counties.

PIPELINES & TRANSPORTATION | Developments

Bentek Analyst: Rail Will Help De-Bottleneck Hubs

BY CAROLINE EVANS | HART ENERGY

With prices at more than \$90 a barrel (bbl.), it's easy to say oil isn't going anywhere. But what happens when the prices dip, as Bentek analyst Jay Williams expects them to in the future?

"When we look at \$80 oil, we consider a 20% hurdle rate, most of these plays are still very attractive, very economic," Williams said during a presentation on North American crude oil at Bentek's Benposium here last week. According to Williams' model, the Bakken would still see an internal rate of return (IRR) of more than 50% at \$80 oil.

"When we layer on \$60 oil with the same kind of analysis, your major plays, the Bakken, the Permian and the Eagle Ford, are still above 20%, with the Bakken being near 30%," Williams added. "So, even with that \$60 oil, these plays are still very attractive and can attract a lot of capital going forward."

Even a decline in prices (Williams projected West Texas Intermediate (WTI) to drop to \$77 by 2018), North American crude production is expected to grow by 4.2 million bbl. per day during the next five years. The U.S. is expected to account for about 3.2 million of those bbl. The model only takes into account known producing plays, not new or emerging plays, "so if they find another Bakken somewhere, it could be even bigger," Williams said.

And that could put even more pressure on the midstream, already dealing with full pipes in Western Canada, bottlenecks in and out of the Bakken and Permian plays and constraints at hubs such as Cushing and Chicago. The industry has scrambled to keep up, trying to expand, convert or reverse pipelines. This is especially true in Canada, where the TransMountain pipeline route has been exhausted.

"Until more expansions out of Canada, this market's going to rely heavily on rail over the next couple of years," Williams said. "Similar to what we're seeing in the U.S., these pipelines are full, or the demand markets are full, so rail is going to play a big role in balancing this market and not causing Western Canadian Syndicate (WCS) or syncrude prices to fall even more."

Rail moves around 50% of Bakken production out of the play, Williams said. And in addition to it keeping WCS and syncrude



GREAT EXPECTATIONS | North American crude production is expected to grow by 4.2 million bbl. per day during the next five years. The U.S. is expected to account for about 3.2 million of those barrels.

prices stable, it will also be crucial in de-bottlenecking the hubs until the pipelines catch up.

Some pipeline projects Williams mentioned are:

1. TransMountain pipeline expansion.
2. Keystone XL's northern leg. "We expect that to go forward," he said. "Not only is it needed for Canada, it's needed for the southern leg of Keystone XL to not drain all of Cushing."
3. Enbridge reversing the entire Line 9.
4. The conversion of the Pony Express Pipeline back to oil.

Williams also projected that as prices shift downward, the Bakken differential to WTI will weaken. Meanwhile, as the new Canadian pipelines open up, he expects the WCS differential to WTI to strengthen.

Raymond James: Gulf Coast Light Sweet Imports Poised To Tip

BY STEVE TOON | HART ENERGY

A flood of light sweet crude oil flowing into Gulf Coast refineries will push out all imports of the light sweet hydrocarbon as soon as this summer, according to John Freeman, managing director of E&P equity research for Raymond James. Expect East Coast imports to follow the same trajectory next year.

Imports of light sweet crude into the Gulf Coast refinery complex have trended down by 1 million barrels (bbl.) during the past two years, with just 200,000 bbl. currently being imported, Free-

PIPELINES & TRANSPORTATION | Developments

man told attendees at a Houston Producers Forum event in May. “By our numbers, we’re going to completely back out Gulf Coast light sweet imports in the next couple of months.”

New pipelines transporting Permian basin production, crude by rail, expanded Eagle Ford shale supply and the southern portion of the Keystone XL pipeline have contributed an additional 700,000 to 900,000 bbl. per day inflow. “The bottleneck we’ve had the past few years at Cushing—we’re just moving it to the Gulf Coast.”

Once that happens, how long does it take to back out upper East Coast light sweet imports? “The East Coast has a little more running room,” he said, with some 400,000 bbl. per day of imported light sweet currently. “Sometime in mid-2014, you will have backed out the East Coast’s ability to refine the light sweet,” he predicted.

The wave of oil flowing into U.S. refinery complexes is a direct result of increased production using enhanced recovery technologies in tight oil basins, previously unrecoverable. “What we’re doing is amazing,” he said. “In six years, (the industry) is going to reverse all declines we’ve had in U.S. oil production in the prior 20 years.”

The “big three” driving growth are the Bakken shale, the Eagle Ford shale and the Permian basin, contributing 95% of oil supply growth during the past three years.

As supply increases, Freeman said moving the oil is becoming more and more difficult, leading to inevitable pricing discounts.

“Oil demand is anemic, and oil supply growth is going through the roof in this country,” he said, “so our inventories continue to get more bloated.”

In the short term, Canada has and will continue to be an outlet for increasing U.S. supply. Currently, some 120,000 bbl. a day are being shipped to eastern Canadian refineries, which can handle 350,000 to 400,000 bbl. of light sweet imports.

“It won’t take long before we’re pressing up against that, maybe 12 to 18 months,” Freeman noted. “If it wasn’t for them and for some export permits that are quietly being allowed by the (U.S.) government to a handful of companies, we would already have been hosed.”

Waivers to export crude to Canada will continue, he thinks. “We don’t have a choice but to send unrefined oil to Canada to the

extent they can take it.” But the odds of a complete lifting of the ban on exporting crude is not likely in the next five years, he said.

Combined with global macro factors for oil that anticipates ramped supply from Saudi Arabia, Iran, Sudan and the North Sea, contrasted with slowing demand in China and India, Freeman portends a precipitous drop in the price of oil due in 2014. Raymond James projects an average \$70 for West Texas Intermediate and \$85 for Brent crude for the year.

“Oil inventories over the last 18 months have been trending higher. In 2014, we should be almost 2 million bbl. oversupplied (globally),” Freeman said. “Unless Saudi wants to take its oil supply to 25-year lows, oil prices are probably going to go lower.”

On a more positive note, independence from foreign oil imports is inevitable as U.S. supplies continue to increase. U.S. oil imports have decreased by 6 million bbl. per day during the past seven years.

“In essence, they’ve been cut in half. By our numbers, we’re independent sometime in the early 2020s.”

In a nod to natural gas, Freeman said better days are coming for those who can wait.

“If all the liquefied natural gas facilities that are approved to be built happen, and if all the industrial plants that are supposed to be built get built, we think there is going to be a super spike in natural gas around 2016 or 2017.”

Magellan Considers Arkansas Pipeline Extension

Magellan Midstream Partners LP may extend its refined petroleum pipeline system from Fort Smith, Arkansas, to Little Rock, Arkansas, the company announced.

The new line would transport gasoline, diesel and jet fuel, the company reported. Magellan is determining the cost involved and hopes to complete its review by mid-summer. The pipeline would range from 10 to 12 inches in diameter and be capable of moving 50,000 to 75,000 barrels per day, the company added.

Magellan owns and operates a 9,600-mile refined petroleum pipeline system with 49 terminals nationwide. The Tulsa firm also has added almost 1,000 miles in crude oil pipelines since 2010.

NEWS & TRENDS | Up To Date

Barclays: Shale Energy Economic Effect 'Modest' To Date

BY STEVE TOON | HART ENERGY

For all the hype about job growth and energy independence surrounding increased oil and gas activity in the shale plays, the overall effect to date to the U.S. economy is modest at best, say analysts with Barclays Capital Inc. But the best is yet to come.

"Dramatic changes in U.S. energy markets as a result of the revolution in oil and natural gas drilling technologies have led to a direct—albeit modest—boost to U.S. gross domestic product (GDP) and industrial production," says Dean Maki, economics research analyst for Barclays, in a research report on U.S. shale energy and equity market effects.

Job growth and GDP will continue to rise due to increased oil and gas activity, he says, "with the effects likely to grow over time."

The oil and gas boom has had a positive impact on several macroeconomic indicators, including trade, industrial production, employment and inflation.

The U.S. trade deficit for petroleum products declined 1%, from 1.9% of GDP in fourth-quarter 2005 to .9% first-quarter 2013, "the largest factor in narrowing the overall real trade deficit," according to the report. Likewise, increased oil and gas drilling has gained ground as a percent of industrial production from "low single digits" in fourth-quarter 2009 to 10.3%.

Employment generated by oil and gas extraction, support activities and pipeline construction has grown by more than 260,000 jobs since the end of 2005, compared with overall U.S. employment growth of 618,000 in the same period. "Still, these direct effects are modest relative to the current pace of labor market improvement," which is currently adding some 173,000 overall jobs per month, compared with 3,000 in the oil and gas sector.

Indirect effects of increased drilling are anticipated from expected lower energy prices, including more discretionary funds to spend for households and businesses, and cost advantages that motivate firms to locate in the U.S. "The U.S. manufacturing sector is the primary beneficiary of these cost savings."

So far, the analysts say, "the positive effects on GDP and employment growth of shale drilling appear to be modest." However, "there is good reason to expect them to grow larger in the coming

years." They cite jobs from near-term construction of liquefied natural gas (LNG) facilities, investment spending by manufacturers expanding in the U.S., and incremental effects of lower electricity prices resulting from lower natural gas costs.

Effect on equity markets

When it comes to equity markets, Barclays repeats that shale activity will have a modest effect there as well. While lower energy costs create competitive advantages for refiners and chemical companies, "we prefer capex beneficiaries—major service companies and pipeline infrastructure—to more commodity-leveraged positions," advises analyst Barry Knapp.

However, he notes, refiners offer "a very attractive risk/reward" as Barclays anticipates refining spreads to remain wider than general expectations.

Going forward, watch for signposts that might affect equities leveraged to U.S. natural gas markets, they say, including shifts in U.S. LNG export policy, regulation that could limit hydraulic fracturing, accelerated coal utility plant retirements or outages and higher-than-expected demand from gas utilities.

Any of these could disrupt the balance, "perhaps pushing gas prices higher and at the margin change the outlook for coal and gas demand."

Coal Regains Electric Generation Market Share From Natural Gas

After an equal share of electric power was generated from coal and natural gas in April 2012, the U.S. Energy Information Administration's (EIA) most recent preliminary data through March 2013 shows coal has generated 40% or more of the nation's electricity each month since November 2012, with natural gas fueling about 25% during the same period, said the EIA's "Today in Energy" brief.

Since May 2012, a combination of higher prices for natural gas and increased demand for electricity during the summer months led electric systems across much of the country to increase their use of coal-fired units. According to EIA, coal-fired units generated a little over 130,000 megawatt hours (MWH) of electricity in March, while natural gas units produced nearly 85,000 MWH.

NEWS & TRENDS | Up To Date

Heading out of spring of 2013, higher prices for natural gas reduced the fuel's share of total generation below the record levels of last April, the EIA said.

Martin Midstream To Acquire NL Grease Assets

Martin Operating Partnership LP, a subsidiary of Martin Midstream Partners LP (MMLP), has agreed to acquire all of the assets and inventory of NL Grease LLC—a Kansas City, Missouri, grease manufacturer that specializes in private-label packaging of commercial and industrial greases.

The acquisition is expected to close before the end of July. MMLP expects incremental cash flow of about \$2.5 million annually from the newly acquired assets.

“The NL Grease acquisition represents the first of what we believe could be many tuck-in acquisitions in our fast-growing lubricant packaging business,” MMLP President and Chief Executive Ruben Martin said in a release.

Halliburton Adds 100 CNG Trucks To Fleet

Halliburton has deployed nearly 100 light-duty compressed natural gas (CNG) trucks across several field locations in the U.S., the company announced.

According to a company release, the bi-fuel trucks were recently purchased as part of a pilot program to be rolled out throughout the company's U.S. operations.

“There is considerable focus across the industry to identify multiple ways to leverage this abundant, reliable and cleaner burning source of energy in day-to-day operations,” said Halliburton Western Hemisphere President Jim Brown in a release.

When operating on CNG, the environment-friendly vehicles emit about 90% fewer emissions than gasoline-powered vehicles, and are estimated to save approximately \$5,100 per truck in fuel cost annually, the company said.

The new CNG truck fleet will be assigned to 15 U.S. locations in seven states including: Texas, Oklahoma, Colorado, California, Louisiana, Utah and Pennsylvania.

Wood Mackenzie: Australia Facing a Hiatus in LNG Developments

At the Australian Petroleum Production and Exploration Association (APPEA) 2013 conference, Wood Mackenzie's Head of Australia Upstream Consulting, Andrew McManus, warned that Australia faces a hiatus in new liquefied natural gas (LNG) projects as the focus of LNG buyers has turned to the U.S.

The U.S. offers customers potentially lower-cost, more flexible LNG and the opportunity to diversify supply portfolios, according to Wood Mackenzie.

“There are five key issues driving buyer motivations in the current market: supply portfolio diversification, exposure to Henry Hub pricing, greater flexibility in contract terms, projects that can be sanctioned quickly and access to upstream equity. For these reasons, the U.S. supply has become the most favorable near-term option, which is for deals where supply is expected to start pre-2020,” McManus said in a release.

But continued growth in LNG demand offers room for other supply regions, including East Africa, Canada and Russia. Opportunities for new Australian projects will be limited, and the high-cost environment will need to be controlled for these projects to be competitive with emerging supply regions. However, a strong focus on greater supply diversity means that any new Australian capacity is likely to be smaller in scale than the large greenfield developments seen in recent years, and limited to the expansion of existing facilities or floating LNG.

“Australia has had a remarkable few years of LNG build. It has gone from contributing 7% of global LNG supply in 2000 to an expected 25% of the global market by 2018. Buyers have increased their exposure to Australia during the period, as Australia has been the only material supply option available. It is inevitable that markets like China and Japan, which are major Australian LNG off-takers, may now seek to diversify their supply options,” said McManus.

SNAPSHOT | Industry Insight

Why Now Is A Good Time To Sell A Midstream Company

BY ERIC KERN | SPECIAL TO HART ENERGY

When big companies sell, they make headlines. Many are household names, and the transactions are measured in billions of dollars. But the real action in mergers and acquisitions is happening in small and mid-size companies. Ninety percent of the businesses sold every year are valued at less than \$500 million.

IBISWorld estimates that the oil and gas pipeline construction industry's revenue will increase 4.7% during 2013 as global energy demand boosts domestic investment in energy infrastructure. Elevated energy prices and technological advances are increasing the cost effectiveness of extracting and producing energy from shale and oil sands. The development of these sources is creating unprecedented demand for the construction of pipelines to connect these new production sites with major markets and existing infrastructure.

Private and public sector utilities-related expenditures have increased 0.5% per year on average over the five years through 2013. In 2008, contractors laid 3,989 miles of pipe, adding 44.75 billion cubic feet per day to the nation's natural gas pipeline capacity, more than three times the capacity of additions constructed in years prior. It is clear that the midstream industry is in a growth period with strong demand for products and services in the coming months.

However, even though the financial outlook is very positive right now business owners still have an important question: "Is now really a good time to sell my company?"

You have survived the worst economic downturn in recent U.S. history, clawed your way back, fought to retain existing customers and win new ones. Why would you sell out now?

1. The economy is growing again. If you work in the midstream energy industry, nobody has to tell you that business is picking up. Drilling activity is up. Pipeline construction is booming. The stock market is higher than it was prior to the 2008 crash. The housing market has rebounded and sales are increasing daily. All economic predictors indicate that numerous sectors, such as retail, aerospace, energy and the auto industry, are regaining traction and sales are climbing.

The oil and gas pipeline construction industry's revenue is forecast to total \$52.3 billion in 2018, representing average annual growth of 3.1% over the next five years. Steady expansion

in the production and consumption of natural gas for domestic, industrial and power generation purposes will continue to drive demand in the midstream sector between now and 2018.

As we all know, nothing moves in the U.S. without energy being involved. America's success runs on an affordable supply of energy. If you are thinking about selling your company, you should sell when the market and sales are rising—not falling. Potential buyers are interested in, and will pay more for, a company that can demonstrate rising sales and cash flow. Don't miss the wave that is building.

P private and public sector utilities-related expenditures have increased

0.5% per year on average over the five years through 2013.

2. Political questions are answered. Last year the U.S. faced one political crisis after another. The election, the debt ceiling, new healthcare legislation and the fiscal cliff, all created uncertainty. Many business owners who were thinking about selling and potential buyers held off awaiting the answers.

Today, most of those issues have been addressed. We're in a period of relative political stability before the next presidential election ramps up and the European fiscal crisis has settled down. Potential buyers are ready to move forward in acquiring new fleets and investing in new operations.

3. Cash is available. Corporations have approximately \$1.8 trillion in cash available for mergers and acquisitions. Private equity groups alone have \$480 billion. Both corporations and equity groups want to put that cash to work and expand their companies through acquisitions that can help them become more profitable. Energy companies are specifically attractive to investors, because investors understand the ongoing need for abundant, affordable energy to drive overall economic success in the U.S.

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structing the ECHO crude oil storage and terminal facility, located outside Houston in southeast Harris County, Texas. Of that expected 19 million bbl. of capacity, Enterprise estimates that the ECHO facility could have as much as 6 million bbl. of crude oil storage capacity when completed.

The terminal will be connected to both the Enterprise-owned Eagle Ford crude pipeline from South Texas and the Seaway line that runs between Cushing and Freeport, Texas, once the company completes an ECHO-to-Jones Creek, Texas, pipeline in the third quarter of 2013. Jones Creek, outside Freeport, is Seaway's southern terminus.

Once completed, the ECHO terminal will offer access to major Texas Gulf Coast refining centers in Texas City, Pasadena/Deer Park, Baytown and along the Houston Ship Channel. ECHO will also be connected to the Enterprise marine terminal at Morgan's Point on the ship channel.

"The neat thing about ECHO is it is a pipeline connected to every major refinery in the Houston, Beaumont, Port Arthur areas and the entire Gulf and East Coasts through waterborne," A.J. "Jim" Teague, executive vice president and chief operating officer of Enterprise's general partner, recently told the Houston Producers Forum.

Enterprise announced in November 2012 that the initial phase of the storage facility was complete and receiving deliveries of crude oil. The facility's first three tanks have a total 750,000 bbl. of storage capacity. And, according to the company, the next expansion phase is expected to add as much as 900,000 bbl. of storage capacity, which could be in service as early as the first quarter of 2014. That could bring large potential benefits to both Enterprise and refiners, according to RBN's Fielden.

"For Enterprise, the huge potential benefit from the ECHO terminal, which they have yet to realize, is they will be able to offer customers a throughput from Seaway to Houston and then once in Houston, they will be able to offer customers a redistribution point to refiners around the area or an access point to the Houston Ship Channel, for marine transport," he says. "For refiners, storage facilities like ECHO offer a useful staging post to reliably provide a given amount of crude feedstock on a consistent basis."

According to Fielden, in the recent past Gulf Coast refiners spent billions of dollars reconfiguring their refineries to "live on a diet of heavy sour crude." The influx of competitively priced inland light crude is not really suitable for these refineries.

"You can run lighter crude, but it produces too much light distillate that overwhelms the refinery capacity forcing a reduced throughput," he says. "One way for Houston refineries to consume more of the competitively priced light crude is to blend it with heavier grades. And one of the advantages of having access to storage terminals like ECHO is its blending capabilities."

Due to the backlog experienced in Cushing, inland crude prices are depressed, with a price spread of as much as \$20 between West Texas Intermediate (WTI) crude and North Sea Brent crude. Many in the market, Fielden says, once believed that ECHO, along with the Seaway and Keystone pipelines, would miraculously bring inland prices "back in line with Brent." But, pricing predictions can be difficult and, Fielden explains, the old rule of thought is looking unlikely.

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