

## Producers, Manufacturers Differ On LNG Export Potential

### CLNG's Cooper, Dow's Molinaro offer contrasting views

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

In the past two years liquefied natural gas (LNG) has become a hot topic in the natural gas industry as producers have sought access to premium markets outside of North American shores.

This interest has undeniably been a major plus for a North American LNG industry that was DOA just five years ago, but providing producers with access to some of the world's best markets for LNG is easier said than done.

Under the Natural Gas Act, applications to export LNG volumes to countries with free trade agreements (FTA) with the U.S. are basically rubber-stamped. However, when it comes to non-FTA countries, the situation is much stickier.

"If you propose to export gas to countries with which we do not have an FTA, then the process is a little more complex," Bill Cooper, executive director, the Center for Liquefied Natural Gas, said during a recent webinar hosted by Ballard Spahr.



**DIFFERENT OPINIONS** | Both natural gas producers and manufacturers support LNG exports, but differ on the amount that should be sent out.

He noted that the Department of Energy (DOE) requires non-FTA export requests have their applications completed at least 90 days before they will be considered. They are then published in the Federal Register and must have 30 days for comments from opposition parties that can prove that the proposal isn't in the public interest. This brings up another concern as the Natural Gas Act doesn't define what they mean by "public interest."

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

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## NGL PRICES & FRAC SPREAD | Week in Review

### Gas Prices Remain Over \$4; Rig Count Remains Flats

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

Natural gas prices continued to grow the week of April 17 as cooling demand remained solid and gas-directed drilling is still well behind liquids production.

As of mid-April, the natural gas rig count was nearly 250 rigs below last year's level. Heavy heating demand this past winter saw storage levels decrease significantly, which has caused any incremental demand to exceed supply levels.

The Mont Belvieu price rose 4% to \$4.34 per million Btu (/MMBtu) while the Conway price improved 3% to \$4.26/

CURRENT FRAC SPREAD (CENTS/GAL)				
April 29, 2013	Conway	Change from Start of Week	Mont Belvieu	Last Week
Ethane	18.68		28.24	
Shrink	28.24		28.77	
<b>Margin</b>	-9.56	-63.15%	-0.53	-169.68%
Propane	86.52		94.72	
Shrink	39.02		39.75	
<b>Margin</b>	47.50	-2.04%	54.97	-1.48%
Normal Butane	119.04		127.30	
Shrink	44.18		45.01	
<b>Margin</b>	74.86	-5.11%	82.29	-5.86%
Isobutane	120.00		131.42	
Shrink	42.43		43.23	
<b>Margin</b>	77.57	-11.21%	88.19	-4.21%
Pentane+	217.30		198.00	
Shrink	47.24		48.13	
<b>Margin</b>	170.06	1.44%	149.87	-6.43%
NGL \$/Bbl	37.57	-1.44%	39.25	-1.95%
Shrink	15.56		15.85	
<b>Margin</b>	22.00	-4.44%	23.40	-5.52%
Gas (\$/mmBtu)	4.26	3.15%	4.34	3.83%
Gross Bbl Margin (in cents/gal)	49.13	-4.62%	53.40	-5.36%
Gross Bbl Margin (in cents/gal)				
Ethane	1.03	-13.20%	1.55	-0.84%
Propane	3.00	0.23%	3.29	0.68%
Normal Butane	1.29	-2.20%	1.37	-2.65%
Isobutane	0.75	-6.61%	0.82	-1.71%
Pentane+	2.80	1.80%	2.55	-4.13%
Total Barrel Value in \$/mmbtu	8.87	-2.01%	9.59	-1.56%
<b>Margin</b>	4.61	-6.34%	5.25	-5.62%

NGL PRICES						
Mont Belvieu	Eth	Pro	Norm	Iso	Pen+	NGL Bbl
April 17 - 23, '13	28.24	94.72	127.30	131.42	198.00	\$39.25
April 10 - 16, '13	28.48	94.08	130.76	133.70	206.52	\$40.03
April 3 - 9, '13	28.31	91.48	135.44	139.24	208.04	\$40.19
March 27 - April 2, '13	29.90	94.90	141.30	147.00	215.55	\$41.87
March '13	27.95	89.66	141.09	145.14	212.62	\$40.69
February '13	25.64	86.16	162.10	168.05	234.15	\$43.09
1st Qtr '13	25.68	86.42	157.72	166.41	222.63	\$42.07
4th Qtr '12	26.59	88.74	162.76	181.71	215.67	\$42.69
3rd Qtr '12	32.34	89.27	142.76	161.88	200.54	\$41.03
2nd Qtr '12	37.00	97.80	160.76	175.08	207.57	\$44.54
April 18 - 24, '12	47.66	119.22	189.96	202.12	236.22	\$52.92
Conway, Group 140	Eth	Pro	Norm	Iso	Pen+	NGL Bbl
April 17 - 23, '13	18.68	86.52	119.04	120.00	217.30	\$37.57
April 10 - 16, '13	21.52	86.32	121.72	128.50	213.45	\$38.11
April 3 - 9, '13	24.72	87.00	127.56	134.13	212.75	\$39.13
March 27 - April 2, '13	26.58	89.30	134.22	143.57	221.00	\$40.87
March '13	25.29	85.20	134.11	143.21	217.48	\$39.91
February '13	24.13	81.76	156.45	167.85	230.84	\$42.05
1st Qtr '13	23.94	81.81	153.43	160.39	222.63	\$41.11
4th Qtr '12	18.45	79.24	164.46	174.39	209.16	\$39.94
3rd Qtr '12	14.60	70.25	124.35	165.61	195.68	\$34.99
2nd Qtr '12	11.18	72.63	135.80	161.38	203.31	\$35.72
April 18 - 24, '12	11.78	88.74	159.13	188.33	226.90	\$41.28
2nd Qtr '12	11.18	72.63	135.80	161.38	203.31	\$35.72
April 18 - 24, '12	11.78	88.74	159.13	188.33	226.90	\$41.28

(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.

MMBtu. These prices are the highest in several years and some analysts contend that they could continue to approximately \$4.50/MMBtu before the end of summer this year.

The improvement in gas prices has significantly harmed frac spread margins, especially in the case of ethane. There was a decrease in ethylene demand the week of April 17, as approximately seven ethane crackers were offline. This resulted in prices tumbling

## NGL PRICES & FRAC SPREAD | Week in Review

13% to 19¢ per gallon (/gal), its lowest price of 2013. The last time it was lower was the week of December 12, when it was 17¢/gal. The Mont Belvieu price fared a bit better, as it only decreased 1% to 28¢/gal, which is roughly the same level it has traded at for the past month. Ethane margins are now negative at both hubs.

Propane was the lone natural gas liquid (NGL) to increase in price during the week, as it rose 1% at Mont Belvieu and increased slightly at Conway due to increased export demand. The Texas price rose to 95¢/gal, its highest price of the year and its greatest value since it was 97¢/gal the week of October 31. The Kansas price improved to 87¢/gal, which was its second-lowest price in five weeks.

The only other NGL to experience a price improvement was Conway C<sub>5+</sub>, which benefitted from improved West Texas Intermediate crude prices that rose back into the lower \$90 per barrel (bbl.) range. The Kansas price rose 2% to \$2.17/gal, its highest price in a month.

Mont Belvieu C<sub>5+</sub> decreased 4% to \$1.98/gal, which was the first time it traded below \$2.00/gal since it was \$1.99/gal the week of October 3. It was also the eighth-straight week that the Conway price

KEY NORTH AMERICAN HUB PRICES	
2:30 PM CST / April 25, 2013	
Gas Hub Name	Current Price
Carthage, TX	4.12
Katy Hub, TX	4.17
Waha Hub, TX	4.08
Henry Hub, LA	4.19
Perryville, LA	4.13
Houston Ship Channel	4.20
Agua Dulce, TX	3.59
Opal Hub, Wyo.	3.97
Blance Hub, NM	3.96
Cheyenne Hub, Wyo.	3.97
Chicago Hub	4.26
Ellisburg NE Hub	4.21
New York Hub	4.37
AECO, Alberta	3.59

Source: Bloomberg

outpaced its Mont Belvieu counterpart as heavy NGL stock levels are lower in the Midcontinent than in the Gulf Coast.

However, this decreased level of heavy stocks didn't have much of a positive impact on isobutane, as it traded 7% lower than the previous week with very little volatility. The \$1.20/gal price was the hub's lowest price since it was \$1.15/gal the week of September 30, 2009. The Mont Belvieu price was down 2% from

the prior week to \$1.31/gal, its lowest price since it was \$1.29/gal the week of October 7, 2009. These significant decreases were because of lessened demand for gasoline and alkylate.

Isobutane's sister product, butane, also experienced decreased prices, but didn't fall as low as isobutane. Mont Belvieu butane dropped

RESIN PRICES – MARKET UPDATE – APRIL 26, 2013					
TOTAL OFFERS: 19,640,220 lbs		SPOT		CONTRACT	
Resin	Total lbs	Low	High	Bid	Offer
HDPE - Blow Mold	3,716,348	0.635	0.72	0.61	0.65
PP Copolymer - Inj	3,577,564	0.67	0.78	0.68	0.72
LLDPE - Film	2,716,968	0.68	0.75	0.64	0.68
LDPE - Film	2,515,864	0.605	0.76	0.69	0.73
PP Homopolymer - Inj	2,216,140	0.68	0.79	0.66	0.7
HDPE - Inj	1,464,484	0.65	0.72	0.63	0.67
GPPS	1,012,000	0.88	0.93	0.84	0.89
HIPS	844,000	1.01	1.05	0.96	1.01
LDPE - Inj	699,196	0.655	0.73	0.68	0.72
HMWPE - Film	617,288	0.7	0.74	0.65	0.69
LLDPE - Inj	260,368	0.68	0.71	0.64	0.68

Source: Plastics Exchange – www.theplasticsexchange.com

3% to \$1.27/gal, its lowest price since the week of July 4 2012 when it was the same. The Conway price fell 2% to \$1.19/gal, the lowest value it has held since it was \$1.09/gal the week of August 1.

The theoretical NGL bbl. price dropped 2% to \$39.25/bbl. at Mont Belvieu with a 6% decrease in margin to \$23.40/bbl. The Conway bbl. price was down 1% to \$37.57/bbl. with a 4% drop in margin to \$22.00/bbl.

The most profitable NGL to make at both hubs remained C<sub>5+</sub> at \$1.70/gal at Conway and \$1.50/gal at Mont Belvieu. This was followed, in order, by isobutane at 78¢/gal at Conway and 88¢/gal at Mont Belvieu; butane at 75¢/gal at Conway and 82¢/gal at Mont Belvieu; propane at 48¢/gal at Conway and 55¢/gal at Mont Belvieu; and ethane at negative 10¢/gal at Conway and negative 1¢/gal at Mont Belvieu.

The natural gas storage injection season continued to be slower-than-normal due to the lower production figures. According to the Energy Information Administration, storage levels increased 30 billion cubic feet to 1.734 trillion cubic feet (Tcf) the week of April 19 from 1.704 Tcf the previous week. This was 32% below the figure of 2.541 Tcf reported last year at the same time and 5% below the five-year average of 1.828 Tcf.

Cooling demand should be about average for this time of year according to the National Weather Service's forecast for the week. The forecast anticipates normal temperatures in the Northeast and Midwest with warmer temperatures in parts of New England and the West Coast. Cooler-than-normal weather is expected in the Gulf Coast and Southeast.

## PROCESSING TRENDS | An Inside Look

### U.S. Shale Impact On Global Markets

BY **SCOTT WEEDEN** | HART ENERGY

China could follow the U.S. example and develop its shale gas resources to become self-sufficient in natural gas. By 2035, Russia and the Middle East could see declines in natural gas exports of 6.3 trillion cubic feet (Tcf) (37%) and 3.4 Tcf (35%), respectively.

At the same time, continued increases in oil production from the “big three” U.S. oil shale plays—the Bakken, Permian and Eagle Ford—would result in reactions in the oil markets from Saudi Arabia and the Organization for the Petroleum Exporting Countries (OPEC).

A panel of experts at the DUG Permian conference in Fort Worth on April 4 tackled the prospects of “Emerging Resource Plays and the Global Infrastructure Challenges.” Panelists were: Dr. Carmine Difiglio, deputy assistant director for policy analysis, Office of Policy and International Affairs, U.S. Department of Energy; Herve Wilczynski, partner, A.T. Kearney Inc.; Bill Brown, senior analyst, Office of Oil, Gas, and Biofuels Analysis, U.S. Energy Information Administration; and Mike Kelly, vice president and senior E&P analyst, Global Hunter Securities Inc.

“Shale gas, so far, has been a North American story,” Wilczynski told the more than 2,500 participants at the conference. “However, the majority of resources are outside North America. The U.S. might find itself as a pioneer in this field, but the big bang might happen outside the country.”

Shale plays in the U.S., China, and Argentina can disrupt the global balance, which could lead to possible changes in global pricing regimes, he said. China has already committed to 4.7 Tcf/y of pipeline imports and is building 2.2 Tcf/y of LNG import capacity to meet half of its 2020 demand.

“China potentially could do like the U.S. has done and become self-sufficient in natural gas. The Chinese government wants this to happen. There is the political will to increase domestic production by 2.2 Tcf to 3.5 Tcf by 2020. The pacing factor is that the midstream infrastructure is very constrained. The pipeline network in China represents only 16% of the capacity in the U.S.,” he continued.

Argentina is rich in shale gas with the second largest reserves behind China and ahead of the U.S. The situation in Argentina,



**WORLDWIDE IMPACT** | The shale story might extend outside of North America, according to A.T. Kearney’s Herve Wilczynski (Courtesy: Hart Energy).

though, is that the business environment is not conducive to rapid development of shale resources, he added.

There are factors that could impede the growth of shale gas, including subsurface geology, regulations, business environment, above-ground constraints and reactions from competing sources of natural gas like Qatar and Russia, Wilczynski explained.

Difiglio agreed with the shift in natural gas exports by 2035 with worldwide shale development. Not only will Russia and the Middle East see declines in gas exports with unrestrained shale development, but U.S. exports will decrease to zero, a drop of 5 Tcf since U.S. gas ultimately will be less competitive with other major gas producers.

One of the unique aspects of the shale gas plays worldwide is that the resources are located near demand centers, he emphasized. “Natural gas exports from North Africa and the Caspian Region will also be reduced as gas production shifts to demand centers.”

By 2035 with unrestrained shale development, European shale production would increase 9 Tcf (57%) over the baseline case, Australia up more than 4 Tcf (150%) and China nearly 3 Tcf (81%), Difiglio continued.

Kelly said natural gas production growth in the U.S. is still on the horizon. “There is a 30-year drilling inventory capable of generating 25% or higher internal rates of return at \$4.50 per million cubic feet (Mcf), which should push supply growth higher over the next five years to more than 4.3 billion cubic feet per day (Bcf/d). Such growth will keep intermediate gas prices range-bound between \$3/Mcf to \$4/Mcf.

“We’re not too optimistic on natural gas. We see limited upside there,” he added.

## PROCESSING TRENDS | An Inside Look

### Shale Oil, NGLs Get More Attention

The oil side of the equation is just as impactful as the gas side. “NGLs will show more modest growth with capacity additions in terms of fractionation capacity, gas processing and pipelines,” Kelly explained. “We see long-term NGL prices at 51% of the WTI price versus the 41% we saw in 1Q 2013.”

North American growth in crude oil production could “precipitate a seismic shift in the geopolitical landscape by undermining OPEC as the hegemonic global provider of swing capacity. North American supply growth is for real,” he emphasized, “And the U.S. is leading the charge.

“By 2014-15, this supply is disruptive to the world supply balance by 2.5 million barrels per day (MMb/d) on the crude side. We see WTI falling to \$80 by 2014,” he continued. “There is no shortage of oil-resource plays in the U.S.”

### U.S. Natural Gas Prices Hit Two-Year High

Cutbacks in U.S. natural gas drilling and production and higher North American demand combined to decrease storage levels and raise prices above \$4/MMBtu in the first quarter of 2013, according to Ernst & Young Oil & Gas Center’s quarterly analysis.

Gas-directed drilling fell in 2012 through early 2013, and after natural gas prices hit all-time lows in early-2012, some producers cut back production while others focused on higher-priced liquids. Despite these shifts, natural gas supply continued to soar on associated gas production and lagged infrastructure completions. Meanwhile, demand improved as power generation and industrial usage increased 21% and 3%, respectively.

“Although \$4/MMBtu reflects a more-than 50% increase over 2012’s record lows, U.S. natural gas prices are still very low compared to global markets,” said Marcela Donadio, Americas Oil and Gas Leader for Ernst & Young’s Global Oil and Gas Center, in a release. “The shale boom has created a new reality of abundant U.S. natural gas. Taking full advantage of this increased supply will require access to the global market in the form of LNG exports.”

### Oil

Global oil demand growth is projected to increase by less than 1% as demand falls in advanced economies but rises in the developing

world. Lackluster demand and increases in non-Organization of the Petroleum Exporting Countries (OPEC) supply, largely from North America, indicate softer pricing and a challenge for OPEC to manage its production and maintain supply and demand balance.

“Growing non-OPEC production is now impacting global supply and demand dynamics,” said Donadio. “With major consuming countries like the U.S. relying more on ‘home-grown fuels,’ exports are being shifted to new destinations. This creates new trade alliances and relationships.”

### Gas

Despite the higher U.S. natural gas prices, regional price differences are substantial highlighting the opportunity to ship U.S. natural gas to advantageous markets.

Access to new gas supplies from planned LNG projects in the Eastern Mediterranean, Eastern Africa, U.S. and Canada will create greater pricing balance and impact the economics of many proposed LNG projects. Australia’s booming LNG sector, which is experiencing rapid cost escalation, will be the most pressured by these new supplies.

### Midstream

Surging North American supply, both in terms of oil and natural gas, has created substantial logistical constraints and bottlenecks as well as triggering unprecedented infrastructure investment. As many as 20 mid-to-major sized pipeline projects are slated to be completed in 2013 and another 20 mid-to-major projects are slated for 2014. Crude-by-rail capacity is also surging as rail shipments of crude are estimated to have increased by more than 50% in 2012.

### Badger Midstream Gets Equity Investment

U.S. Capital Advisors (USA) LLC made a \$24.1 million preferred equity investment into Badger Midstream Energy LP, a newly formed midstream energy company. The preferred equity investment from USCA clients combined with the significant investment from the company’s general partner and an additional outside investor allowed Badger Midstream to complete its acquisition of Midstream Energy Services, a private midstream company based in Tulsa, Oklahoma.

## PIPELINES & TRANSPORTATION | Developments

### Tierra Sells Pipeline Assets

The Tierra Companies and TexStar Midstream successfully completed the sale of Tierra Pipeline LP to TexStar Midstream Services LP. In addition, the companies have also entered into a non-binding Letter of Intent (LOI) to sell Tierra Transportation to Black Creek Well Services, a sister company of TexStar. Tierra and Black Creek will work together toward completion of the sale of the transportation assets on or before July 1.

The Tierra Companies chief executive, Glen Gonzalez, stated in a company release, “as we have always known, both the Tierra Pipeline and Tierra Transportation assets are strategically located in Central Texas. A multi-line right-of-way that extends from San Antonio to Corpus Christi and intersects the heart of the Eagle Ford shale has proven to be a unique asset; I’m delighted that we have found the perfect buyer in TexStar Midstream Services who can push the assets to the next level. The additional time that Tierra took on due diligence and commercial development of the line has allowed us to find the best usage and highest value for the pipeline assets. The deal between The Tierra Companies and TexStar Midstream/Black Creek is the realization of our vision for the Tierra assets: Integrated Midstream Services within the Eagle Ford shale.”

TexStar and Black Creek are purchasing Tierra to build on the company’s business platform and are committed to the growth and success of Tierra’s business. There are no plans to change the Tierra business model. The trucking assets will continue to service the same customer base with the same team. TexStar and Black Creek will leverage each companies’ deep resources, asset base, relationships and project slate to help the companies achieve their maximum potential and best serve their customers.

The Tierra Pipeline assets included in the transaction between Tierra and TexStar are a multi-line right-of-way and pipeline, which intersects the heart of the Eagle Ford Shale play. The 140-mile pipeline extends from San Antonio to “refinery row” in Corpus Christi, Texas. The pipeline consists of one 4” line diameter section spanning 123 miles from San Antonio, Texas to Odem, Texas, and one 6” line diameter section spanning 17 miles from Odem to “refinery row” in Corpus Christi.

New markets: Gazprom plans on exporting LNG to China, Japan and Korea via its Sakhalin Energy venture with Shell, Mitsui and Mitsubishi



**NEW MARKETS** | Gazprom plans on exporting LNG to China, Japan and Korea via its Sakhalin Energy venture with Shell, Mitsui and Mitsubishi.

### Gazprom Targets Asia For LNG Projects

BY **VELDA ADDISON** | HART ENERGY

Although Russia holds the world’s largest natural gas reserves and serves as the main source for energy for several countries, Russia’s Gazprom is not backing down from LNG action as it moves forward with major projects.

Speaking during the LNG 17 conference April 18 in Houston, Elena Burmistrova, deputy director general for Gazprom Export’s oil and gas products, LNG and new markets division, said the company is looking for opportunities to expand its business, focusing mainly on the Asia-Pacific region, where future demand is expected to be the highest.

The company continues to grow its global presence as it considers pipeline projects and makes way for potential project expansions.

One of the key elements of the state-run Eastern Gas Program, coordinated by Gazprom, is LNG, Burmistrova said. The program aims for an integrated gas production, transportation and supply system in eastern Siberia and the Far East with gas exports target-

## PIPELINES & TRANSPORTATION | Developments

ing countries in the Asia-Pacific region, including China, Japan and Korea.

Among the projects is Sakhalin. Gazprom acquired a majority stake in Sakhalin Energy (Shell, Mitsui & Co. and Mitsubishi Corp.), leading to the commissioning of Russia's first LNG plant in 2009. Although the project had a delay, Burmistrova said, it has since "gone through a successful ramp-up. It was planned for 9.6 million tons. Now, we're producing 10 million tons of LNG."

Gazprom is considering expanding the Sakhalin II project by adding a third LNG train. Currently, pre-FEED analysis is being conducted with completion anticipated in July 2013. A decision on the expansion could be made by 3Q 2013, Burmistrova said.

Work also progresses on the company's newest projects, including Vladivostok LNG, which would supply LNG to Asia by 2018. The plant will be located on the Lomonosov Peninsula and have a production capacity of 15 million metric tons per year.

"The most interesting is the resource base allocated for the Vladivostok project," Burmistrova said, noting it is unique because it has two fields—East Siberia's Yakutia and Irkutsk. Combined, the two have estimated gas resources of 177 Tcf.

In addition, Gazprom is working with Novatek for LNG production in the Yamal Peninsula.

"The joint venture will carry out pre-[FEED] studies, elaborate project documents, work out a plan for the LNG plant construction and a joint program for development of the fields where the company will act as an operator for the facilities development and arrangement," according to Gazprom's website.

"Until the end of the year it is scheduled to approve a comprehensive program for project implementation, including the main project features and deadlines, as well as the timescale for the final investment decision-making, the financial scheme and the terms of financing."

Yamal LNG, which would be built in the Russian Arctic by 2018, will have three trains with a capacity of 15 MMmt/year.

"We consider the real advantage of the projects is the proximity to target markets. ... These projects will allow the company to stand on par with the main LNG players," Burmistrova said.

Gazprom faces the U.S., where a natural gas boom has resulted in plentiful reserves and low prices, as a potential rival. However, currently, only one company—Cheniere Energy—has permission from the U.S. federal government to export LNG.

Not knowing how much LNG could be exported from the U.S., Burmistrova said Gazprom can't base its pricing on volumes that are uncertain right now. Location is among Gazprom's advantages.

"We are real close" to the Asian market, Burmistrova said, adding it takes only one day to transport to Japan.

Although Gazprom is focusing much attention on the Far East, it has not lost sight of its European customers, one of its "oldest and most stable markets." Burmistrova said another pipeline to the U.K. is being considered.

"We have been a very reliable supplier," she continued. "We think that we will be quite attractive to our regional and to new customers plus potential clients in Asian-Pacific countries."

Despite the company's strong presence in the energy world, do not expect Gazprom to jump into shale play-action anytime soon. Shale is not being considered for development in Russia, although it has the resources.

"Conventional gas is more attractive to us right now," Burmistrova said, adding shale gas will not be developed in Russia for the next five to 10 years based on economics.

### Xcel Energy Considers Adding "Peaking" Units

Xcel Energy proposed adding up to three "peaking" units—one in Burnsville, Minnesota, and two near Hankinson, North Dakota—as the best way to meet customers' needs during times of high electricity demand.

The proposal to add up to three natural gas-fueled combustion turbines was submitted in response to proceedings before the Minnesota Public Utilities Commission on Xcel Energy's Upper Midwest Resource Plan. Those proceedings concluded the company will need to add 150 megawatts of new power resources in 2017 and up to another 350 megawatts by 2019.

"Our proposal responds to our customers' need for power that can be brought on line quickly and efficiently to meet demand when it's highest," Judy Pofert, president and chief executive of Northern States Power Co.-Minnesota, an Xcel Energy company, said in a release. "Further, our proposal provides flexibility to allow us to add resources only if they're needed."

[READ THE FULL ARTICLE ONLINE](#)



## NEWS &amp; TRENDS | Up To Date

## Surging Production Makes Market ‘Bear’ Feel Upbeat

BY PAUL HART | EDITOR, MIDSTREAM BUSINESS

An admitted market bear says the industry’s current prospects make him “a little more upbeat than I normally am.” Porter Bennett, president and chief executive for Ponderosa Advisors, told attendees at Hart Energy’s DUG Midcontinent conference that “I have bearish tendencies” but he sees a future looks bright for producers and the midstream.

“We’re producing more natural gas, more natural gas liquids, and soon more crude oil, than the country can consume,” Bennett told the Tulsa event, which attracted more than 1,000 attendees.

Abundant supply and slack demand – thanks to a soft economy and industries not geared to use those hydrocarbons – creates low prices for now. But those attractive prices will create new demand, and higher prices, in the long run.

“Customers are finding new ways to exploit that low-cost energy,” he said. Current trends also “probably will lead to the export of crude, also propane and even ethane,” along with liquefied natural gas.

What has happened is “historic and tumultuous. It’s hard to understate the issues when you think about the changes in the last 10 years,” Bennett added.

The industry analyst broke down economic trends by commodity. For gas, he cited current production of 64.4 billion cubic feet per day. “That’s the positive side,” he added and up sharply from a few years ago. However, Bennett noted the current mark actually is down 200 million cubic feet per day from fourth-quarter 2012. “We’re in a market where production may have stabilized” and that’s a good thing for the industry, he said. A more-normal winter has helped reduce a gas storage glut, he noted.

For crude oil, Bennett said output also has increased dramatically, rising 1.8 million barrels per day (b/d) since 2011 – truly “an unexpected event,” he said. “All of that new crude is trying to find its way to refineries and storage facilities,” creating challenges for the midstream. Trends indicate crude production could rise another 5 million b/d by 2025, “that assumes the rig count and initial production, well performance, and the regional distribution



**TURNAROUND** | Porter Bennett of Ponderosa Advisors told DUG Midcontinent attendees that energy markets could be moving from a bear to bull outlook.

of production remains constant. The most important variable is the price of crude – if it stays between \$70 and \$100 (per barrel),” he added.

A significant challenge will be how, and if, U.S. refineries can process that increase. The bulk of new domestic production is light sweet oil from shale plays, flooding into an industry that has skewed toward heavy, sour feedstocks over the years.

Rising production has created an equal challenge for natural gas liquids (NGLs), he said. “In 2009, NGLs were a value-add to gas but they became the primary target as gas prices began to fall,” Bennett added. “Unlike the gas sector, I expect NGLs will have a floor under them.”

He then discussed how production of each commodity not only has increased, but core production areas have changed. Gas production in the Rockies – a big player for years – has dropped while output from the Northeast’s Marcellus – a region that historically had negligible production – has skyrocketed. Crude production also has boomed in new areas, such as the Eagle Ford in South Texas and Bakken in North Dakota while dropping from conventional core producing areas, in particular Alaska.

Surging NGL output has seemingly come out of nowhere from the Eagle Ford, Marcellus and other shale plays. Gas liquids are a big component of produced natural gas in the unconventional shale plays.

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All of this change creates special challenges for the nation's midstream sector, he pointed out. Existing transportation and processing networks must be expanded and re-purposed.

Supply and demand will come into balance over time and U.S. exports will be a necessity. He pointed to ethane as an example. Now in over supply, new ethylene cracking capacity under construction along the Gulf Coast, coupled with exports, should bring supply and demand into balance by 2018.

"Customers have low prices now and have to figure out how to use that (advantage)," Bennett said. "In petrochemicals, steel and fertilizer, there are opportunities that they haven't seen in years. Eventually, the market will take advantage of it."

## Excelerate Files FERC Application For LNG Import Facility

Excelerate Energy and the Puerto Rico Electric Power Authority (PREPA) filed their formal application with the Federal Energy Regulatory Commission (FERC).

The filing represents a major milestone in the permitting process and signifies a step closer to receiving approval to build and operate a floating offshore liquefied natural gas (LNG) regasification facility off the southern coast of Puerto Rico.

The Aguirre Offshore GasPort is a proposed LNG import facility located approximately four miles offshore the southern coast of Puerto Rico, near the town of Salinas. The facility will provide fuel to the Aguirre Central Complex and will convert power generation from high-cost, high-emissions imported oil to cost-effective, cleaner-burning natural gas. The Central Aguirre Power Complex will convert 900 megawatts (MW) of existing power generation to be dual-fueled, capable of using No. 2 diesel and/or natural gas as its primary fuel.

The companies anticipate FERC will issue the draft Environmental Impact Statement (EIS) in the third quarter 2013 and a final EIS early 2014. As part of the process, public hearings will be held so interested parties and the communities may participate in the process. Pending approval from FERC, the facility is expected to be in-service in early 2015. Prior to the filing, Excelerate has held numerous presentations for communities and interested parties in the Aguirre area.

## PLH Acquires Pipeworx, Expands Into Canada

PLH Group Inc., a portfolio company of private equity firm Energy Capital Partners, acquired Pipeworx Ltd., a pipeline contractor in Western Canada.

PLH acquired Pipeworx and its subsidiaries. With four offices and headquarters in the Edmonton, Alberta, area, Pipeworx delivers infrastructure services to the oil and gas industry across the Western Canadian Sedimentary basin. Specializing in the construction of pipelines ranging in size from 2" to 20" in diameter, Pipeworx has evolved into one of the most innovative and respected pipeline contractors in Western Canada.

Risk Weighted Version Of S&P GSCI Launched

S&P Dow Jones Indices launched the S&P GSCI Risk Weight which measures the S&P GSCI on a risk weighted basis. The Index takes into account the contribution of each commodity sector to the overall index risk while seeking to minimize the variance of the risk contributions from all of the commodity sectors.

The five sectors in the S&P GSCI Risk Weight - energy, industrial metals, precious metals, agriculture, and livestock - are the same as the sectors in the S&P GSCI. The risk contribution from each sector is calculated using its covariance, as defined by its volatility and correlation with other sectors. In order to avoid concentration risk, the maximum sector weight is capped at 33% and any excess is redistributed to the remaining sectors based on their risk contribution.

"The S&P GSCI Risk Weight allows us to measure the commodities beta provided by the S&P GSCI with a focus on a balanced risk contribution from each sector," Jodie Gunzberg, head of commodity indices at S&P Dow Jones Indices, said in a release. "This index facilitates access to broad-based commodities with a modified weighting scheme centered on risk and serves as a benchmark to risk based strategies."

The launch of the S&P GSCI Risk Weight expands the S&P GSCI family. The S&P GSCI® is the first major investible commodity index. It is one of the most widely recognized benchmarks that is broad-based and production weighted to represent the global commodity market beta. For more information, visit [www.spindices.com/index-family/commodities/sp-gsci](http://www.spindices.com/index-family/commodities/sp-gsci).

## SNAPSHOT | Industry Insight

# Yergin: North America LNG Exports Raise Hopes, What-Ifs

BY **DARREN BARBEE** | HART ENERGY

In January 1959, a converted World War II liberty freighter named *The Methane Pioneer* set sail from a Louisiana port to the U.K. loaded with liquefied natural gas (LNG).

Choked by killer fogs from the burning of coal, Britain hoped that “one way to deal with it was to import natural gas,” said Daniel Yergin, a Pulitzer-prize winning author who serves on the U.S. Secretary of Energy Advisory Board.

“That was the beginning of the trade of LNG,” Yergin said at LNG 17 on April 17.

Decades later the United States seemed destined to be the recipient of LNG as gas production seemed on the decline.

“Things have turned around,” Yergin said. The U.S. and Canada are expected to be players in the LNG market and perhaps dominate it.

But LNG exports are a puzzle in which each piece is in motion. In the coming years, the U.S. will export billions of cubic feet of natural gas, LNG prices will rise and stabilize at up to three times their price while hampered by the escalating costs of skilled labor.

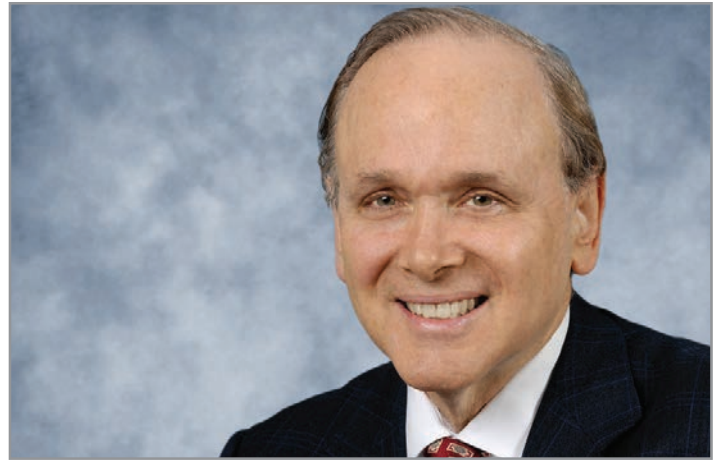
Today, “everyone has the expectation that the U.S. will play an important role as an LNG exporter,” Yergin said. “Of course the debate is how big of a role and how soon that will occur and how much.”

Yergin, vice chairman of IHS, said he’s struck by how often the unexpected has hit the energy industry.

He wondered what will happen if North American exports turn out to be much larger than people project. “That would change the balance in price formation and ... create question marks for other projects in other parts of the world.”

And what if gas export results in an excess surplus? Or if so much LNG comes into the market and traditional pricing relationships break down to the point of a commodity business?

Yergin said the U.S. should set a new competitive price benchmark for gas around the world for perhaps \$12 per million British thermal units (MMBtu). U.S. LNG exports to Japan averaged \$14.44 in 2012, according to the Energy Information Administration.



**CHALLENGES, OPPORTUNITIES** | LNG exports represent great opportunities for the North American economy, but challenges remain, according to Daniel Yergin.

“Obviously that doesn’t mean everyone by any means will adopt that pricing system,” he said. “But it will be possible in some cases to deliver gas from the U.S. to almost any global coastal port.”

Yergin said there are about 30 applications for build facilities. Only a fraction will be built, he said. Such facilities are painfully expensive to build—\$10 billion or more.

In January, 20 U.S. firms had submitted applications for U.S. LNG exports. Of those, 16 were approved for countries with free trade agreements (FTA) with the U.S., such as Canada, Mexico, Chile and South Korea.

However, Cheniere’s Sabine Pass Liquefaction LLC received approval to export to non-FTA countries. It will be the first LNG export facility built since Alaska’s was constructed in the 1960s.

For the overall natural gas market, “we are optimistic. We expect global natural gas demand to double by 2040 from where it is today,” Yergin said.

By 2040, that would constitute demand of 620 billion cubic feet per day (Bcf/d).

“For those that think in oil terms, that would be equivalent to 100 million barrels a day of oil equivalent, which is larger than today’s world oil market,” he said.

Natural gas is already encroaching on coal’s territory. Five years ago, natural gas was about 21% of power generation; today it’s more than 30%.

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“The Department of Energy took a look at that back in the 1980s and determined that the basic concept of the public interest is that the government should evaluate the needs of the gas-consuming public in the United States and whether the arrangement is on a competitively priced basis while minimizing regulatory impairments to a freely operating market,” he said. This definition was reaffirmed by the DOE in Cheniere Energy’s Sabine Pass application, according to Cooper.

In addition, while considering these applications, the DOE takes into account whether there is an adequate domestic supply of natural gas to meet both domestic and export demand.

All of these were considered by the DOE in the Sabine Pass application and it was deemed that Cheniere met all of the qualifications to become the lone company approved by the U.S. government to export LNG to non-FTA countries.

Despite this, the DOE and the Federal Energy Regulatory Commission (FERC) have not set any timelines for when they will make permitting decisions for the remaining non-FTA LNG export licenses.

“It’s our assertion, based upon the statute that DOE should approve the applications. The DOE has gone out and hired NERA Economic Consulting to try to support their findings. While we have particular criticisms of this report, generally speaking, it seems to be good for exports and for the economy. It indicates there’s a procedural framework in place that allows all stakeholders interested in the process to have their voices heard and be considered by the DOE,” Cooper said.

Cooper addressed concerns from groups opposed to exporting LNG due to its potential to undermine the U.S. consumer by driving natural gas costs up, by noting that the Natural Gas Act has provisions that allow the DOE to modify any of the applications they approved.

“We have a regulator that has the authority, under the statute, to take action in the event any of these projects start adversely affecting the domestic need. What else could you want?” Cooper said.

He also noted that the mere attainment of authorization to export LNG out of the U.S. doesn’t guarantee that the project will succeed, or even in some cases come to fruition as some are still dependent upon securing funding to reverse the terminals from import to export.

Cooper stated that the current situation is far more discriminatory to LNG companies, producers and their investors as the hold-up on export applications has put some of the financial decisions on these projects in their own form of limbo. Companies and investors don’t want to make commitments on projects that might be handicapped as to where they can send their volumes and until a federal decision is made, companies can’t fully determine what their business strategies for their terminals should be.

**Others support limited exports**

While lower-priced natural gas and natural gas liquids (NGL) have been very favorable to U.S. manufacturers and petrochemical companies, there have been drawbacks. Peter Molinaro, Dow Chemical’s vice president, federal and state government affairs, stated that petrochemical companies have been having trouble securing long-term natural gas contracts due to the price discrepancy.

Simply put, producers are unwilling to sign a long-term contract that could result in them leaving money on the table if and when prices turn around.

“There’s no way to execute an agreement that protects everybody on the [pricing] upside and the downside. I think it calls for some creative thinking,” he said.

[READ THE FULL ARTICLE ONLINE](#)**Contact Information:**

**FRANK NIETO** Editor  
[fnieto@hartenergy.com](mailto:fnieto@hartenergy.com)

**Contributing Editors:** Richard Mason, Mike Madere, Scott Weeden, Jennifer Postel, Michelle Thompson, Keefe Borden, Nissa Darbonne, Leslie Haines, Peggy Williams, Susan Klann, Darren Barbee, Paul Hart, Emily Moser, Chris Sheehan, Steve Toon, Zahra Ahmed, Vela Addison

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