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FEATURES

Source: Santos GLNG

Workers feed first gas at the Santos GLNG plant on Curtis Island in Queensland, Australia.

Changes Ahead For LNG Exports

By **FRANK NIETO**, Hart Energy

There are no shortages of changes to commodity markets as a result of increased unconventional gas and oil, many of which are tied to long-time hydrocarbon-importing countries like the U.S. becoming net exporters.

The most obvious example of this type of change can be found in the global LNG market where the U.S. and Australia are forecast to become the largest exporters in the next decade. As volumes from these countries hit the market, they are creating an oversupply.

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LNG from Page 1

"There is no shortage of new capacity vying for market share," said Nelly Mikhaiel, senior consultant at Nexant, as part of a panel on LNG markets at the recent U.S. Energy Information Administration's (EIA) Energy Conference in Washington, D.C.

However, the panel agreed that the market is likely to be balanced by 2020. Mikaiel said that the trend may reverse in the next decade with demand exceeding supply by 2024. This projection is based on existing global liquefaction capacity combined with capacity under construction.

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Besides the U.S. and Australia, Nexant anticipates multiple countries and regions that will seek to fill the forecasted supply shortfall, including Canada, East Africa, West Africa, Russia, Qatar and Papua New Guinea.

According to Mikaiel, Australia will be the largest exporter of LNG by 2020 with approximately 86 million tons per year of export capacity with the U.S., Canada and East Africa making the largest gains in market share. Russia may struggle to gain market share, despite having 44 million tons per year of planned capacity, as several of these projects may struggle to come online before 2030, she said.

Japan has been the largest new consumer of LNG in the wake of the 2011 Fukushima nuclear disaster, which resulted in greater usage of LNG as electric generation fuel, but this growth is expected to slow. Mikaeil said that post-2025, the differentials between contracted and spot prices will narrow as competition increases and growth slows.

Though Australia has the location advantage to Japanese markets, capacity from the eastern portion of the country are among the most expensive due to production costs that are even greater than those found in Western Canada.

By comparison, Qatar will have the cheapest cost stack with U.S. production from Louisiana being in the mid-range. It is likely that the U.S. will fill much of the supply gap, she said, because of its location and vast infrastructure.

Mikaeil noted that Australia faces multiple headwinds: high project development costs with a history of delays; oil-linked, long-term deals that are necessary to provide solid netbacks; a track record of limited industry collaboration that would reduce prices because of competing interests.

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Midyear Look At Midstream 50

By **JOSEPH MARKMAN**, Hart Energy

Halfway through a year in which the unwelcome phrase, "lower for longer," rudely invaded the industry vernacular, investors who parked their funds in public midstream energy entities are likely thinking that things could be worse.

A check of the collective stock performance of **The Midstream 50**, Hart Energy's ranking of the top-performing companies in the sector based on 2015 EBITDA, showed a solid 17.7% gain for the year as of June 30. From 2016's low point on Jan. 20—the day West Texas Intermediate (WTI) crude oil closed below $27 per barrel—the 50 companies were up a glee-inspiring 51.9%.

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►**Read: The Midstream 50: Our Ranking Of The Sector's Major Players**

Calculations for The Midstream 50 were performed by Barclays Capital Inc. The ranking includes both the major MLPs and conventional corporations, or C corps, active in the midstream space.

Commodities have also recovered since mid-January, following crude oil's 25% descent in the first three weeks of the year to a low close of $26.55. From then until June 30, WTI's price leaped 79.7%. The natural gas benchmark Henry Hub price per million Btu rose a less-startling 13.8%.

By comparison, the S&P 500 Energy Sector Index notched a 14. 3% increase for the first six months of the year, and a 31.9% rise since Jan. 20.

While broader stocks were dragged down by oil's woes, the Dow Jones industrial average, which tumbled to 15,766.74 on Jan. 20, has climbed by 13.7% since that date, though its increase for the year is only 2.9%.

Court Decision Could Change Tax Burden On Pipeline MLPs

By **MARK LEWIS, KIRK MORGAN, GEORGE FATULA,** and **KEVIN VOELKEL**, Special to Hart Energy

On July 1, a court decision with major rate implications for FERC-regulated oil and gas pipelines was handed down by the United States Court of Appeals for the District of Columbia Circuit (D.C. Circuit).

The court sided with shippers in an appeal of a Federal Energy Regulatory Commission (FERC) **decision** regarding the tax allowances that FERC allows oil pipelines to include as a component of their cost-of-service transportation rates.

The court's decision in *United Airlines, et al. v. FERC, et al.* strikes at the ability of interstate oil pipelines structured as partnerships to account for income taxes in their cost-based rates. Given the prevalence of the MLP structure among oil and gas pipeline companies, the decision could widely impact cost-based rates.

U.S. Court of Appeals District of Columbia Circuit

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FRAC SPREAD

NGL In Grip Of Summer Doldrums

By JOSEPH MARKMAN, Hart Energy

Ethane prices slumped for the third straight week, pulling this week's price of the hypothetical NGL barrel to a 10-week low at Mont Belvieu, Texas, and a 13-week low at Conway, Kan.

The Mont Belvieu ethane price is down 20.5% from its high in late June, while Conway's price has endured a 31.4% hit since its peak in early June. Margins crashed 61% at Mont Belvieu and 49.2% at Conway in the past week.

CURRENT FRAC SPREAD (CENTS/GAL)				
JULY 22, 2016	Conway	Change from Start of Week	Mont Belvieu	Last Week
Ethane	14.20		18.55	
Shrink	18.37		18.03	
Margin	-4.17	49.15%	0.52	-60.96%
Propane	43.45		48.34	
Shrink	25.37		24.92	
Margin	18.08	-10.82%	23.42	-3.35%
Normal Butane	59.68		59.74	
Shrink	28.72		28.21	
Margin	30.96	-2.85%	31.53	-2.30%
Isobutane	65.35		66.28	
Shrink	27.59		27.09	
Margin	37.76	-3.75%	39.19	0.72%
Pentane+	95.30		94.70	
Shrink	30.72		30.16	
Margin	64.58	-0.50%	64.54	0.37%
NGL $/Bbl	18.85	-2.68%	19.94	-0.99%
Shrink	10.12		9.94	
Margin	8.73	-6.36%	10.01	-2.30%
Gas ($/mmBtu)	2.77	0.73%	2.72	0.37%
Gross Bbl Margin (in cents/gal)	19.27	-6.94%	22.83	-2.49%
NGL Value in $/mmBtu (Basket Value)				
Ethane	0.78	-8.03%	1.02	-3.84%
Propane	1.51	-4.42%	1.68	-1.47%
Normal Butane	0.64	-1.16%	0.65	-1.06%
Isobutane	0.41	-1.91%	0.41	0.58%
Pentane+	1.23	-0.10%	1.22	0.37%
Total Barrel Value in $/mmbtu	4.57	-3.28%	4.98	-1.30%
Margin	1.80	-8.85%	2.26	-3.25%

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 Midwest region, Mont Belvieu based on Houston region. Shrink is defined as Btus that are removed from natural gas through the gathering and processing operation.

Only rising prices for isobutane and C_{5+} at Mont Belvieu allowed NGL to avoid another rout like last week's, when the Texas barrel fell 6.7% and Kansas took a 7.8% hit.

Behind these summer doldrums are the basics of supply and demand. With plenty of supply and not enough demand yet, NGL prices ride the waves of the global crude oil markets.

On June 23, West Texas Intermediate (WTI) peaked for the year, closing at $50.11 per barrel. By July 20, WTI was down 10.3%. That's the ceiling.

The floor is set by the price of natural gas, typically the benchmark Henry Hub price. From its peak of $2.94 per million Btu on June 29, it had shed 7.5% of its value by July 20.

And the near-term outlook is "not too good," as depicted by energy consultancy Douglas-Westwood. The firm sees offshore projects coming to fruition in the next year as adding 1.8 million barrels per day (MMbbl/d) of crude to a market drenched with supply.

If it appears the ceiling is caving in, the floor is giving out, too.

"Beyond oil, gas is growing at twice the rate of oil in terms of production growth," said Steve Robertson, a director for Douglas-Westwood, during the firm's recent webcast. "We need to get through this wave of additional oil supply that's come through levels of investment we saw prior to the

downturn, and that really won't kick in until 2018 onwards."

Ready for some cheer? Who isn't? But first, note **the *Reuters* item on MidstreamBusiness.com with "pain" in the headline**:

"The unusually large amount of gasoline and oil in storage, combined with expectations of a ramp-up in crude production, has made traders more bearish on the price outlook for late 2016 and early 2017."

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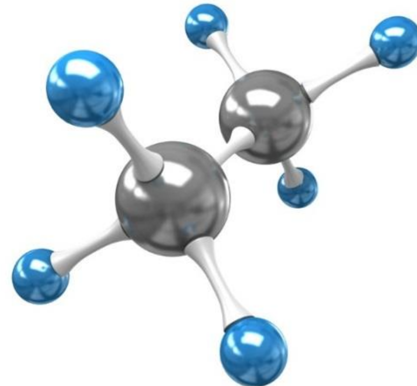
That's the market outlook, which is based on a predicted trajectory of supply and demand. Geopolitics, however, brings its own brand of volatility.

Noting the horrific terror attack in Nice, France, followed by the failed coup in NATO member Turkey, **Stratas Advisors adjusted its view** and now considers geopolitics to be neutral factor to positive factor in the price of oil.

Ethane Recovery Upside: Comparing ONEOK And Targa Resources

By **JIM SIMPSON**, Special to Hart Energy

The potential for ethane recovery is currently all the rage, with first-quarter 2016 earnings calls inundated with questions from analysts regarding asset positioning and company-specific upsides. The number of times the word "ethane" was mentioned during quarterly earnings calls for a sample of midstream companies was up 500% since third-quarter 2015. Over the past few months, the expectation of new ethane demand coming online from North American ethane steam crackers and ocean-going exports has garnered significant attention.



So what's the uproar about? Processing ethane would not increase the *amount* of product sold. It would simply change the product sold from gas to purity product to realize marginal price uplift.

For many midstream companies, the ethane molecule passes through more fee-based revenue opportunities as pure liquid ethane than in gaseous form. The more fee-collecting NGL tolls the midstream operator owns, the more potentially beneficial the impact ethane recovery will have to its margin.

Furthermore, owning NGL assets down the entire chain allows midstream operators to base load their downstream assets with their own gathering and processing NGL supply first and offer its E&P customers a bundled service from wellhead to the demand market for the NGLs produced. This is the point where ONEOK Inc. and Targa Resources Corp. begin to look different when it comes to the opportunities to see incremental uplift from ethane recovery.

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ONEOK is a good example of a company with significant upside potential as it has the ability to pick up value across its vertically integrated midstream assets. In a recent company presentation, the company stated it is able to recover 140,000 barrels per day (bbl/d) of incremental ethane from the Midcontinent (Midcon) region.

The first area for potential uplift is through commodity-exposed gathering and processing contracts. East Daley Capital Advisors estimates minimal ethane uplift for ONEOK as it has worked to convert its contracts with producers to fee-based structures. About 75% of ONEOK's Midcon and Bakken gathering and processing asset contracts are fee-based, leaving 25% of gathering and processing contracts with commodity-exposed ethane upside. However, ONEOK should realize upside from assets further downstream like NGL pipelines and fractionation facilities.

TOP STORIES

Chevron Signs LNG Agreement With Chinese Energy Company

Chevron Corp. (NYSE: CVX) said July 20 it will deliver LNG to JOVO, a privately-held Chinese energy company.

Chevron U.S.A. Inc., a subsidiary of the San Ramon, Calif.-based company, signed an agreement with a JOVO subsidiary for the delivery of up to 0.5 million metric tons per annum of LNG over five years.

Mike Wirth, executive vice president of Chevron Midstream and Development, called the agreement another important step in the commercialization of the company's natural gas holdings.

"We are positioned to become one of the top 10 LNG suppliers in the world," Wirth said in a statement.

The first delivery is expected to arrive in 2018, according to the release. JOVO's LNG business includes a LNG receiving terminal, tank truck operations, urban pipelines for natural gas, automobile gas refilling stations, direct industrial clients, power plant customers and exclusive management of an industrial park in South China.

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Cheniere's Sabine Pass LNG Plant To Close In September For Upkeep

Cheniere Energy Inc.'s (NYSE: LNG) Sabine Pass LNG export plant on the U.S. Gulf Coast will shut down for planned maintenance in September, sources with knowledge of the matter said.

The exact timing of the shutdown has not been set yet, one of the sources said on July 19.

The plant, which started up in February and has exported 18 cargoes to date, can produce around 4.5 million tonnes of LNG per year from its one existing production line, known as train 1.

Spot LNG prices have risen 40% since March to around $5.75 per million British thermal units, driven by production outages in Australia and rising oil prices.

Saudi Aramco Signs Contracts To Build Gas Processing Project

Saudi Aramco signed four engineering contracts to build its Fadhili gas processing project, the company said on July 20.

The project is worth more than 50 billion riyals (US$13.3 billion) and, when completed in 2019, will be the first program in the kingdom to treat gas from both onshore and offshore fields.

The company signed a contract with Saudi Electricity Co. and France's Engie SA to construct the Fadhili plant, which will produce power and steam. A contract for work on offshore facilities went to India's Larsen & Toubro.

Two other contracts, awarded to local companies, are for downstream facilities and a residential camp. Other contracts for the project were signed late last year.

"Fadhili underscores Saudi Aramco's resolute focus on long-term strategies, despite the weak market conditions," said Aramco's Chief Executive Amin Nasser.

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