



**U.S. natural gas prices hold near 9-month highs**



Investing.com - U.S. natural gas futures held near the prior session’s nine-month highs on Tuesday, as forecasts for continued above-normal temperatures across most parts of the U.S. over the next two weeks continued to provide support. Natural gas for delivery in July on the New York Mercantile Exchange tacked on 1.0 cent, or 0.39%, to trade at \$2.594 per million British thermal units by 14:35GMT, or 10:35AM ET. A day earlier, natural gas futures rallied to \$2.635, the most since September 29, as warmer weather lifted cooling demand prospects for the fuel.

The U.S. Energy Information Administration's storage report slated for release on Thursday is expected to show a build in a range between 60 to 71 billion cubic feet for the week ending June 10. That compared with builds of 65 billion cubic feet in the prior week, 89 billion a year earlier and a five-year average of 86 billion cubic feet.

Total U.S. natural gas storage stood at 2.972 trillion cubic feet as of last week, according to the U.S. Energy Information Administration, 22.2% higher than levels at this time a year ago and 24.3% above the five-year average for this time of year.

Natural gas prices are up nearly 40% since falling to a 17-year low of \$1.611 in early March on expectations of strong summer weather-driven demand for gas-fired electricity generation to meet air-conditioning needs.

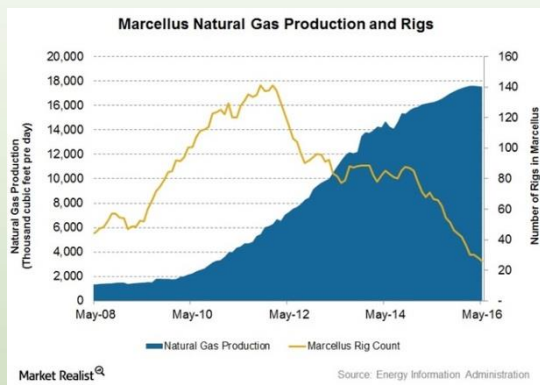
<http://www.investing.com/news/commodities-news/u.s.-natural-gas-prices-hold-near-9-month-highs-408305>

(Investing.com) 6/14/16

**Was the Marcellus Shale’s Natural Gas Production Steady?**

*Marcellus Shale’s natural gas production*

In its Drilling Productivity Report on June 13, 2016, the EIA (U.S. Energy Information Administration) estimated that the Marcellus Shale’s natural gas production was ~17.5 Bcf (billion cubic feet) per day in May 2016. That’s ~0.2% lower than the production level in April 2016. However, it’s 7.7% higher than production in May 2015. Month-over-month, May 2016 represented the second natural gas production decline since October 2014.



Over a longer period, natural gas production growth at the Marcellus Shale has been outstanding. Natural gas production rose from ~1.3 Bcf per day in May 2008 to 17.5 Bcf per day in May 2016.

*Rigs and monthly additions from the average rig*

The number of active rigs in the Marcellus Shale declined by two to 26 in May 2016—compared to April. In May 2015, there were 67 drilling rigs in the region. The EIA calculates that the average Marcellus Shale rig added production of ~11.0 million cubic feet of natural gas per day in May 2016—a 43% rise compared to May 2015. In the past eight years, the gain amounts to 18.0x.

<http://marketrealist.com/2016/06/marcellus-shales-natural-gas-production-steady-may/>

By Alex Chamberlin (Market Realist) 6/14/16

## Clean Energy Introduces Groundbreaking New CleanCNG™ Compressor



*The New CleanCNG Compressor (Photo: Business Wire) Multimedia Gallery URL*

Clean Energy Fuels Corp. (CLNE), the world's largest manufacturer of non-lubricated Compressed Natural Gas (CNG) compressors, today introduced the most advanced heavy-duty non-lubricated compressor for the natural gas fueling market. The [CleanCNG™](#), developed by engineers at Clean Energy's subsidiary Clean Energy Compression in Chilliwack British Columbia, incorporates revolutionary improvements in compressor design and intelligent engineering, resulting in ultra-low vibration and noise in a compressor that is unparalleled in scalability, parts commonality and overall performance.

<http://finance.yahoo.com/news/clean-energy-introduces-groundbreaking-cleancng-10000309.html>

(Yahoo Finance) (Business wire) 6/14/16

## ShIPLEY adding CNG fueling station in Spring Garden Township



*(Photo: Courtesy of Shipley Energy)*

Opening York County's first public compressed natural gas (CNG) fueling station was a natural fit for Shipley Energy, according to the company's owner. Shipley, the owner of several Tom's Convenience Stores, has a background in fuel retail and natural gas supply, and the company owns a fleet of trucks, including several vehicles that already run on CNG.

Matt Sommer, Shipley's president, said the company's CNG-fueled vehicles are currently stored in Baltimore, where adequate fueling stations exist, but they'll be brought to York once the company opens its new station in Spring Garden Township.

CNG is an alternative fuel widely being adopted by major freight companies across the country because it costs, on average, 40 percent less than diesel and cuts overall emissions by up to 30 percent, according to a Shipley news release.

Sommer said the new fueling station, which is being built in partnership with Clean Energy Fuels, will be able to fuel two CNG vehicles at once, taking between four and 15 minutes to fuel depending on the vehicle's size. Shipley is looking to expand its use of CNG vehicles and is hopeful the new station will encourage more local businesses to do the same, Sommer said.

<http://www.yorkdispatch.com/story/money/business/2016/06/08/shipley-cng-fueling-station-york/85599920/>

David Weissman, (York Dispatch) 6/9/16

## City of Tulsa Breaks Ground on \$1.8M CNG Fueling Station

The City of Tulsa has begun construction on its second compressed natural gas (CNG) station, which will be located on East 33rd Street, near the Interstate-44/Broken Arrow Expressway interchange.

Tulsa's first CNG station, located on 23rd Street, opened in 2012 and is currently available to the public.

According to a report from Oklahoma's Own Newson6.com, the new station will help serve the city's CNG fleet vehicles, Tulsa Transit buses and Tulsans with CNG vehicles, as well.

The report adds that Tulsa has 52 CNG vehicles and 121 hybrid vehicles currently in its fleet, saving the city an estimated \$20,000 each year on fuel costs. The \$1.8 million station is set to open early next year.

<http://ngtnews.com/city-of-tulsa-breaks-ground-on-another-cng-fueling-station/>

by NGT Staff (NGT News) 6/9/16

## American Natural Gas Opens Public CNG Station in Ky.



Bestway Service Station in Georgetown, Ky. (PHOTO: ANG)



American Natural Gas (ANG), a distributor of alternative motor fuels, announced the opening of the first public compressed natural gas (CNG) station in Georgetown, Ky. Located along the I-75/I-64 corridor, at 405 Cherry Blossom Way, it brings alternative fuel to the region's robust automotive, agriculture, and transportation industry operations.

"Kentucky's strategic location for national freight movement is further strengthened with the addition of the ANG site near I-75/I-64," noted Kentucky Clean Fuels Coalition President Alan Steiden.

"Alternative fuels can make a dramatic impact on the transportation industry," said Drew West, CEO of ANG. "I'm excited that this location will make conversion to CNG a realistic option for all of the fleets running through Kentucky." Trucking is the predominate mode of freight transportation in Kentucky because it's located within 600 miles of 60% of the country's population, 58% of the country's manufacturing firms, and 59% of the nation's purchasing power.

Bestway Express has signed on as anchor tenant of the station. "Having a CNG station in our backyard is a major step toward meeting our goals," said Will McCormick, maintenance director for Bestway Express. "We're committed to reducing emissions, our carbon footprint, and our dependency on foreign oil and our continued relationship with ANG will make it all possible."

<http://www.truckinginfo.com/news/story/2016/06/american-natural-gas-opens-public-cng-station-in-ky.aspx>

(Trucking info) 6/9/16

## GE and Technip sign MoU to explore LNG digital solutions

GE Oil & Gas and engineering company Technip have signed a memorandum of understanding to jointly explore areas of development for digital solutions in the liquefied natural gas industry, mainly in the design and construction phase of LNG projects.

The objective is to implement digital tools powered by GE's Predix, billed as the world's only cloud-based operating system designed for industrial applications.

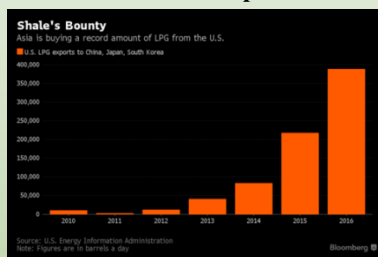
"Combining our complementary areas of expertise allows us to explore new digital capabilities for LNG that can be applied from the design and build phases all the way through to the operational phases," said GE Oil & Gas CEO Rod Christie.

LNG presents a significant area of growth for the oil and gas sector. Given the increasing demand, the volume of global LNG trade is expected to double by 2035. In this scenario, digital solutions will continue playing an increasingly critical role as the oil and gas industry prioritizes the optimization of equipment and operations with the goal of improving productivity and cost-efficiencies.

<http://www.bnamericas.com/en/news/technology/ge-and-technip-sign-mou-to-explore-lng-digital-solutions>

By Wallace Porter (BN Americas) 6/14/16

## U.S. Shale Boom Helps Sate Asia's Hunger for Cooking Gas: Chart



America is exporting liquefied petroleum gas to China, Japan and South Korea at a record pace this year, data from the U.S. Energy Information Administration show. LPG, a by-product of shale gas and oil development, is used for cooking as well as heating. Shipments may increase further as the expansion of the Panama Canal is set to cut freight costs and make U.S. supply more competitive against those from the Middle East, said Junzo Tamamizu, managing partner at Clavis Energy Partners LLC.

<http://www.bloomberg.com/news/articles/2016-06-14/u-s-shale-boom-helps-sate-asia-s-hunger-for-cooking-gas-chart>

By Tsuyoshi Inajima and Ann Koh (Bloomberg) 6/14/16

### **Glatfelter completing \$63 million natural gas conversion**

Glatfelter is working to complete its \$63 million renovations to convert from coal to natural gas boilers at its Spring Grove [PA] facility by the end of the year. The two natural gas boilers replace three long-used coal-fired boilers, which will be retired once construction is complete, Loder said.

Loder spoke about the decision to switch to natural gas boilers as a panelist at The Keystone Energy Forum Thursday morning at the Homewood Suites. The panel, which also included KCF Technologies' Ben Lawrence and UGI Energy's Max Rishel, discussed the benefits of natural gas for local manufacturers.

The company is receiving \$8 million in state grants to help fund the project, according to previous reports, including \$5 million from the Redevelopment Assistance Capital Program (RACP) and \$3 million in Alternative and Clean Energy grants.

Tom Palisin, executive director of the Manufacturing Association of Southcentral Pennsylvania, which cosponsored the forum, said he's heard from several members that the increased use of natural gas in energy production has lowered costs and increased sales margins.

<http://www.yorkdispatch.com/story/money/business/2016/06/09/glatfelter-natural-gas-conversion/85647766/>

David Weissman, (York Dispatch) 6/9/16

### **Asian LNG Benchmark Hits Two-Year Low**



Prices for liquefied natural gas (LNG) spot cargoes for Japan, the world's top buyer, fell in May to the lowest since the trade ministry started publishing figures more than two years ago, official data showed on Thursday.

The average price of spot LNG contracted in May fell by 10 cents from the previous month to \$4.10 per mmBtu, the monthly data by the Ministry of Economy, Trade and Industry (METI) showed, down from \$14.80 two years ago.

The average price of spot cargoes that arrived in Japan in May fell by \$1.50 from a month earlier to \$4.30 per mmBtu, down from \$16.30 two years ago.

The prices compared with the current spot Asian LNG price of \$4.90. Spot prices fell to as low as \$4 in mid-April but have since recovered on short-term supply tightness.

METI surveys spot LNG cargoes bought by Japanese utilities and other importers, but excludes cargo-by-cargo deals linked to benchmarks such as the U.S. natural gas Henry Hub index.

It only publishes a price if there is a minimum of two eligible cargoes reported by buyers.

<http://www.maritime-executive.com/article/asian-lng-benchmark-nears-two-year-low>

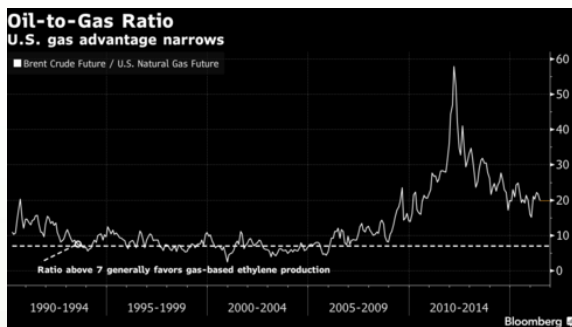
(MarEx) (Reuters) 6/9/16

### As Chemical Makers Balk at New Plants, Earnings Stand to Rise

Royal Dutch Shell NA's decision to build a major chemical plant in Pennsylvania boils down to a bet that North American shale gas in the next decade will remain cheaper than oil, the main petrochemical feedstock used in other regions. It's a risk no one else has dared to take.

A barrel of Brent crude now costs about 20 times more than a million British thermal units of U.S. natural gas, a ratio that has shrunk from 60 times in 2012. As the continent's cost advantage erodes, producers from Braskem SA to Chevron Phillips Chemical Co. are reluctant to commit to fresh investments after they complete a wave of new plants in the next couple years.

The hesitancy leaves few major projects in the pipeline after 2020 even as demand is expected to rise for such products as ethylene and polyethylene, which are used in plastic bags and bottles.



That's contributing to a potential supply shortfall at the start of the next decade since chemical plants take five to seven years to complete, said Hassan Ahmed, an analyst at Alembic Global Advisors. Prices should rise without more production, boosting earnings -- and potentially doubling stock prices -- at chemical makers such as Dow Chemical Co. and LyondellBasell Industries NV, he said in a note Monday. "After this first wave comes, people are paranoid about further additions because of all the volatility in energy," Ahmed said in an interview. "We could see major under-investment, and that will keep markets tight."

#### *'Not Comfortable'*

Shell's ethane cracker and polyethylene plants outside Pittsburgh would begin production after 2020, following a half dozen similar projects on the U.S. Gulf Coast starting up through 2018. The new plants will produce more than local markets need, sending excess supply abroad.

Shell's announcement last week won't push Braskem to pull the trigger on a similar project in nearby West Virginia, CEO Fernando Musa said in an interview at the chemistry council's annual meeting in Colorado Springs, Colorado. The plant, as well as a planned polypropylene factory in Texas, remains under consideration, he said.

#### *Shale Wager*

Braskem already has taken a \$5 billion wager on North American shale gas: It is starting up new ethylene and polyethylene plants in Mexico whose ethane feedstock price is linked to the benchmark at Mont Belvieu, Texas.

Chevron Phillips plans to start production next year at an ethylene and plastics complex outside Houston that will cost \$6 billion. The company isn't ready to commit to a planned second "megaproject," Chief Executive Officer Pete Cella said in an interview at the industry conference in Colorado last week.

"The folks that are running light feeds like us have seen some compression in our margins," Cella said. "That has to give people some reason to step back and think much harder about where supply and demand for all the energy constituents are going before you move forward on a major investment."

BASF SE, the world's largest chemical company, this month postponed a decision on whether to build a 1 billion-euro (\$1.13 billion) plant in Texas that would convert methane to propylene, its biggest ever investment in a single facility, partly in response to volatile raw-material prices.

*'Ticking Along'*

North American profit margins for making ethylene and polyethylene plastics are still among the best in the world, albeit off their peaks. The first wave of new North American plants may create some downward pressure on prices by increasing supply, but the excess will quickly be consumed by global demand that grows by the equivalent of three to five large ethylene plants every year, said Nova Chemicals CEO Todd Karran.

Not everyone is so bullish on basic chemicals. Charles Neivert, an analyst at Cowen & Co., on Monday downgraded LyondellBasell to market perform from outperform in part because he expects increased capacity and higher ethane prices to pressure margins. Nova will decide next year whether to expand its ethylene plant in Corruna, Ontario, by 50 percent, he said.

"If you get into 2020 and you expand the lens beyond North America, you don't see a whole lot of supply coming on," Karran said in an interview. "But demand keeps ticking along."

<http://www.bloomberg.com/news/articles/2016-06-14/as-chemical-makers-balk-at-new-plants-earnings-stand-to-rise>

By Jack Kaskey (Bloomberg) 6/14/16

**Much ado about ethane: Why Shell is interested in this gas that goes into many products**



*The Shell ethane plant site in Monaca, Beaver County. (Lake Fong/Post-Gazette)*

Ethane, the gas around which Royal Dutch Shell has vowed to build a multibillion-dollar petrochemical mecca in Beaver County, has never been the star of the show.

Since the beginning of Marcellus Shale development a decade ago, ethane has swung between perk and burden. The hydrocarbon is recovered along with methane — the main ingredient of commercial natural gas — and either can be left in the gas stream to boost its energy content or be separated and sold to so-called cracker plants.

Those crackers, like the one destined for the banks of the Ohio River in the next decade, further process, or "crack" ethane molecules into ethylene, a building block of the chemical industry.

Either it's a great advantage to producers such as Range Resources and Antero Resources — those with wells in so-called wet gas areas where natural gas liquids, such as ethane, are plentiful. In high times, these companies boast they can sell their ethane on the Gulf Coast or ship it to Canada and Europe where it competes with cracker plants that use oil-based feedstocks.

Or, ethane is a drag. There's too much of it to "reject" or blend into pipeline gas — pipelines have a ceiling on the energy intensity of the gas they transport and ethane bumps up against it. When oil prices are low, ethane can't compete with naphtha, which can also be cracked to produce ethylene and propylene and is derived from crude oil. When oil prices are competitive, the cost of pulling ethane from the gas stream, which involves cryogenically freezing it to turn it into a liquid, outweighs the benefit.



That's when, as it happened last year, oil and gas producers who have the option shift their activity to dry gas areas — drilling targets that don't contain as much ethane — as they wait for the price of oil to rebound or for ethane demand to pick up.

#### *Waiting for the crackers*

MarkWest Energy Partners, a Colorado-based oil and gas processor, built nine fractionators in Appalachia. Those are huge processing plants that separate natural gas liquids from the gas stream and split them into purity products like ethane, butane, propane.

The company now produces 80 percent of the ethane in this region that's not blended into natural gas pipelines. It also operates two pipelines strictly to carry the hydrocarbon to a chemical hub in Canada and another in Marcus Hook, Pa. Earlier this year, the ethane coming into Marcus Hook started boarding specially-constructed boats heading for Europe.

Another pipeline, ATEX (Appalachia to Texas), carries ethane down to the U.S. Gulf Coast, home to all of the country's existing petrochemical crackers in the and where another half a dozen or so are planned.

#### *A home-grown market*

Mr. Haas (director of integrated gas at Stratas Advisors) estimates that producers in North America are currently leaving in the gas stream 750,000 barrels of ethane daily, while the ethane that's being extracted and sold separately amounts to no more than 1.3 million barrels.

So, if the market is right, there could be a lot of new ethane ready to fill demand in no time. But the question is, "Do we all need 70 percent more plastic this year?" he asked. "Shell is a big company. They know the globe, but it took them five years to get comfortable to do it," he said.

Kendall Puig, a senior analyst with Platts Analytics, expects ethane to swing into a shortage by the end of the decade, when several Gulf Coast-based crackers come online and eat up the oversupply available today. Prices will rise, she predicts.

The U.S. Energy Information Administration projects a similar trend and expects that ethane production will grow by 27 percent between 2015 and 2017, while natural gas production will rise only 3 percent during that time. That means rigs are likely to return to the wet gas areas like southwestern Pennsylvania.

It's still not the headliner — no one is drilling for ethane as their primary target — but over the next several years, it might be that ethane will have more of a supporting role in the region's energy profile.

<http://powersource.post-gazette.com/powersource/companies/2016/06/14/Much-ado-about-ethane/stories/201606140009>

By Anya Litvak (Pittsburgh Post-Gazette) 6/14/16

#### **Second LNG-Powered Cement Tanker Delivered by Ferus Smit**

Ferus Smit says it has delivered the second LNG powered cement tanker - one of the first of its kind in the world - *MV Ireland*, to Norwegian owner JT Cement. Netherlands-based Ferus Smit Contracting B.V. (Ferus Smit) Thursday announced that it has delivered the second liquefied natural gas (LNG) powered cement tanker, *MV Ireland*, to Norwegian owner JT Cement AS (JT Cement).

The dual fuel LNG-MGO vessel is said to be part of a joint venture between Erik Thun AB and KG Jebsen Cement and is one of the first such vessels in the world. "These vessels are the first ever dry cargo vessels with an LNG fuelled propulsion system and LNG tanks integrated inside the hull," said Ferus Smit, adding: "the unique design incorporates a pressurised LNG tank positioned in the foreship."

The ship builder says that the vessel will meet the most stringent emission criteria, as well as possible future regulations that may be put in place for environmentally sensitive areas.

<http://shipandbunker.com/news/world/352430-second-lng-powered-cement-tanker-delivered-by-ferus-smit>

Ship & Bunker News Team (Ship & Bunker) 6/10/16



### Utica Shale's Natural Gas Production Rose 46% in a Year

According to the EIA (U.S. Energy Information Administration), the Utica Shale in eastern Ohio has become one of the fastest-growing natural gas-producing regions in the US. In its Drilling Productivity Report released on June 13, 2016, the EIA estimated that the Utica Shale's natural gas production reached 3.7 Bcf (billion cubic feet) per day in May 2016.

That's nearly unchanged from production in April 2016. However, it's 46% more than production in May 2015. In the past eight years, the natural gas production at the Utica Shale increased more than ~21.5-fold.

<http://marketrealist.com/2016/06/utica-shales-natural-gas-production-rise-46-year/>

By Alex Chamberlin (Market Realist) 6/14/16

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### About the SGICC

**The Ben Franklin Shale Gas Innovation and Commercialization Center ([www.sgicc.org](http://www.sgicc.org)) is designed to harness innovation and new technologies to maximize the economic return to Pennsylvania's citizens from the Marcellus and Utica shale formations. The Center's goal is to increase sustainable employment and wealth creation in Pennsylvania that has the potential to outlast the initial exploration, production and transportation of natural gas from the formations. The Center will also identify, support and commercialize technologies and early-stage businesses that enhance responsible stewardship of the environment while properly utilizing this transformative energy asset.**

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