

### **Natural Gas Rises as U.S. Cold Outbreak Spurs Heating Demand**

Natural gas rebounded in New York as wintry weather over most of the U.S. boosted demand for the heating fuel.

Futures rose as much as 1.7 percent as the coldest air in almost 20 years swept over the central U.S. toward the East Coast, threatening to topple temperature records. Tomorrow may be the coldest day of the 21st century for the contiguous U.S., beating Jan. 16, 2009, according to Matt Rogers, the president of Commodity Weather Group in Bethesda, Maryland. Gas is rising because of the weather, said Gordon Kwan, the regional head of oil and gas research at Nomura Holdings Inc. in Hong Kong. "We may see \$4.50, or maybe even a spike to \$5" per million British thermal units, he said by phone today.

Natural gas for February delivery climbed as much as 7.1 cents to \$4.375 in electronic trading on the New York Mercantile Exchange, and was at \$4.372 at 9:30 a.m. London time. The volume of all futures traded was 73 percent above the 100-day average. Prices advanced 26 percent in 2013, the most in eight years. Natural gas will increase this week, according to a Bloomberg News survey. Eight of 11 analysts, or 73 percent, said futures will gain through Jan. 10, while three predicted a decline. Last week, 44 percent of survey participants said prices would drop.

About 49 percent of U.S. households use gas for heating with the biggest consumers in the Midwest, according to the Energy Information Administration. The heating season from November through March is the peak demand period for the fuel in the lower 48 states.

<http://www.bloomberg.com/news/2014-01-06/natural-gas-rises-as-u-s-cold-outbreak-spurs-heating-demand.html>

Reporter Winnie Zhu in Singapore wzhu4@bloomberg.net editor Pratish Narayanan pnarayanan9@bloomberg.net  
(Bloomberg) 1/6/14

### **New Compressed Natural Gas Station Fills A Gap In Central PA**



The organization says the CNG facility, which is at 267 Fritz Rd. off U.S. Highway 220 near the Interstate 80 corridor, is "the first of its kind" in this small central Pennsylvania county. Right now, the public station features a single dual-hose fast-fill CNG dispenser with point-of-sale capability (including for Wright Express fleet cards). Behind the fence, there are two fast-fill hoses and a number of time-fill posts.

The Clinton County Solid Waste Authority is the initial anchor fleet for the facility. It currently operates two heavy-duty dual-fuel diesel/natural gas tractors, as well as one CNG-powered recycling truck. Also, two additional tractors with dedicated CNG systems are expected to come online next month, and "more conversions are being planned for 2014," the authority says. Pennsylvania-based Clinton County Solid Waste Authority has opened to the public its new compressed natural gas (CNG) refueling station, located at the Wayne Township Landfill in McElhattan, Pa.

[http://www.ngtnews.com/e107\\_plugins/content/content.php?content.9379#.UssWEPuo7GM](http://www.ngtnews.com/e107_plugins/content/content.php?content.9379#.UssWEPuo7GM)

(NGT News) 12/30/13

## Little Rock CNG Station Will Bring Total To 7 in Arkansas



Jason Burt

Little Rock's compressed natural gas station is scheduled to open in early February. It will be the seventh location in Arkansas.



Early in February, the city of Little Rock is scheduled to open the seventh compressed natural gas station in Arkansas that is available for public use. Compressed natural gas has been used for vehicles for years, but it's now becoming more viable with its low price — CNGPrices.com shows Arkansas' stations selling the fuel at the equivalent of about \$1.50 per gallon of gasoline — and with government incentives available for companies considering making the change.

The U.S. Department of Energy lists 644 public stations in the nation, with many states having just a handful (Alaska, Delaware and Vermont each have a single station) and others having dozens (New York has 36, Utah 43 and California 142).

Arkansas has had public CNG stations for just a few years — a station owned by Arkansas Oklahoma Gas Corp. was opened in 2011. Most of the stations are owned by gas companies or municipalities.

<http://www.arkansasbusiness.com/article/96414/little-rock-cng-station-will-bring-total-to-7-in-arkansas>

by Luke Jones (Arkansas Business) 1/6/14

## Republic Services Launches New Fleet of Natural Gas Powered Trucks in Indianapolis

Republic Services, Inc. announced the deployment of 79 Compressed Natural Gas (CNG) solid waste and recycling trucks that are now serving customers throughout greater Indianapolis. According to a release, the new CNG fleet replaced older diesel powered trucks, and represents a significant local investment in cleaner, safer and more efficient vehicles.

"We are committed to doing our part to give back to the communities we are privileged to serve every day," said Travis Simpson, area president of Republic Services. "One way we give back is by leaving a cleaner and healthier community for future generations. With these new trucks, we are reducing ozone-forming emissions to levels equal to removing 395 automobiles off local roads this year, and in the next year 70 percent of our local fleet will be powered by compressed natural gas. Our employees are proud to make a difference in their community."

Republic installed two natural gas fueling stations to support its new fleet of CNG powered trucks in Indianapolis. Natural gas fueling stations enable CNG trucks to fuel during non-peak hours, which has the added benefit of reduced energy consumption during the refueling process.

According to the U.S. Environmental Protection Agency, each new CNG solid waste and recycling truck reduces ozone-forming emissions by as much as 80 percent when compared to older diesel powered trucks. Republic operates a fleet of more than 1,400 CNG vehicles and 26 natural gas fueling stations nationwide. Approximately 50 percent of all Republic vehicles purchased in 2013 are powered by the domestic fuel source.

<http://www.4-traders.com/REPUBLIC-SERVICES-INC-14296/news/Republic-Services-Inc--Republic-Services-Launches-New-Fleet-of-Natural-Gas-Powered-Trucks-in-Indi-17752230/>

(4-Traders) 1/6/14

## Chinese-owned coal company to invest \$90M in Marcellus

The biggest coal company in the world, China's state-owned Shenhua Energy Co. Ltd., is making a big commitment to drilling for natural gas in southwestern Pennsylvania. Shenhua is making a \$90 million investment in a joint venture with Energy Corporation of America to drill for natural gas in Greene County.

The Denver-based Energy Corporation of America said in a prepared statement that the natural gas wells would be drilled with Shenhua subsidiary Shenhua America Holdings Corp. over the next 18 months in Greene County. Shenhua will provide \$90 million in initial capital for the drilling project, and Energy Corp. of America will operate the wells, with the rest of the capital needs being split evenly by Shenhua and Energy Corp.

<http://www.bizjournals.com/pittsburgh/blog/energy/2014/01/chinese-owned-coal-company-to-invest.html>

Digital Producer Paul J. Gough (Pittsburg Business Times) 1/5/14

### **Nashua's fleet of compressed natural gas vehicles gets nod in MotorWeek magazine**

Nashua's penchant for using alternative fuel in its fleet of vehicles earned recognition from MotorWeek.

The magazine recently featured Nashua as a "Success Story," one of its regular features, highlighting the city's "singing the praises" of compressed natural gas, which it uses in about 40 vehicles, from buses to pickup trucks and street sweepers.

The city built a compressed natural gas fueling station in 2011.

"It's really been very exciting for us to be the first one in New England to do something like this," Mayor Donnalee Lozeau told the magazine.

<http://www.nashuatelegraph.com/news/1025366-469/nashuas-fleet-of-compressed-natural-gas-vehicles.html>

(Nashua Telegraph) 1/4/14

### **Tri-Star Construction Cuts Cost with CNG**



Tulsa, OK-based Tri-Star Construction is a civil construction company that performs road work, airport construction, earthwork and underground utilities. The company has been in business since 2004 and has an annual work volume around \$10 to \$12 million with 75 employees.

Tri-Star currently has 13 pickups on the road that are used by superintendents and foremen on the crews to run between jobsites and pull small equipment or haul tools. "My guys are driving anywhere from 35,000 to 45,000 or a little more miles per year," says Mark Huff, president, Tri-Star Construction. Foremen and superintendents are allowed to take the trucks home at night. "They pretty much start in them and end their day in them."

The cost of running the pickups is significant. With 13 trucks powered by gasoline, which ranged at around \$3.79 a gallon this fall, the costs add up.

<http://www.forconstructionpros.com/article/11267652/tri-star-construction-cuts-cost-with-cng>

by Curt Bennink (ForConstructioPros.com) 1/6/14

### **Record-Setting LM2500 Turbine to Be Displayed at World LNG Fuels 2014**

HOUSTON, TX--(Marketwired - Jan 6, 2014) - GE Aviation will display its model LM2500 high-speed catamaran engine at the *World LNG Fuels Conference* in Houston's George R Brown Convention Center, Jan. 21-23. Earlier this year, Buenos Aires-based Buquebus, a diversified transportation company, set a world speed record of 58.1 knots (107.6 kmh or 66.9 mph) by powering its new *Francisco* high-speed ferry with LNG and diesel-fueled LM2500 turbines.

Each engine can produce 22 megawatts (approximately 30,000 horsepower). The turbines are derived from jet engines GE makes to power large aircraft. Those turbines aboard the *Francisco* can be fueled with natural gas and/or marine diesel. Both drive Wartsila LjX 1720 SR waterjets, which propel the 99-meter (325-foot) ship across the Río de la Plata estuary.

"We're delighted GE is able to display the LM2500 technology to the conference," said Bob Nimocks, *World LNG Fuels* program chairman. "GE will join some 60 other companies displaying new equipment and services to make domestic natural gas a competitive, clean fuel."

<http://www.powerengineeringint.com/marketwired/2014/01/6/record-setting-lm2500-turbine-to-be-displayed-at-world-lng-fuels-2014.html>

Neressa Williamson (Market Wired) (Power Engineering International) 1/6/14

### **Lockheed Martin targets liquefied natural gas industry to boost Michoud manufacturing**

It's been nearly a year since Gov. Bobby Jindal and Lockheed Martin Corp. executives gathered at Michoud Assembly Facility in eastern New Orleans to unveil a \$3 million investment intended to save jobs at the plant after years spent manufacturing fuel tanks for NASA's now-ended space shuttle program. This month, Lockheed crews at Michoud will put the finishing touches on the first fruits of that investment: a 90-foot-long, pill-shaped, stainless steel liquefied natural gas fuel tank.



The tank is one of two Lockheed has a contract to build for Wartsila, a Finnish company that designs engines and propulsion systems for ships. The tanks will be installed in two new LNG-powered offshore supply vessels currently being built by New Orleans-based Harvey Gulf International Marine, which serves oil and gas companies in the Gulf of Mexico. Harvey Gulf CEO Shane Guidry said it will cost about \$3.8 million to build the tanks

[http://www.nola.com/business/index.ssf/2014/01/lockheed\\_martin\\_targets\\_lng\\_ta.html](http://www.nola.com/business/index.ssf/2014/01/lockheed_martin_targets_lng_ta.html)

By Jennifer Larino (NOLA.com | The Times-Picayune) 1/3/14

### **EQT Corporation announced 2014 operational forecast**

EQT Corporation recently announced the company's 2014 capital expenditure forecast is \$2.4 billion. The forecast includes \$1.9 billion for EQT Production; \$475 million for EQT Midstream and the remainder for other corporate items.

In Utica Development, the company plans to spend approximately \$145 million on Utica well development in 2014 -- drilling 21 wells in its "liquids-rich acreage in Guernsey County." The 2014 Utica wells are expected to have an average lateral length of 6,500 feet. EQT Production owns approximately 14,000 net Utica acres in Ohio.

In Marcellus Development, the company plans to spend approximately \$1.1 billion on Marcellus well development in 2014, drilling 186 Marcellus wells with an average lateral length of 4,800. All wells will be on multi-pad wells to maximize operational efficiency and well economies. Approximately 90 percent of the Marcellus drilling program will focus on the two core development areas of southwestern Pennsylvania and northern West Virginia, with the remainder in central Pennsylvania to further de-risk this future development area. EQT production owns approximately 560,000 net Marcellus acres.

EQT Production 2014 capital expenditures is projected to total \$1.9 billion, excluding land acquisitions.

The breakdown is \$1.6 billion for well development, \$50 million for developmental geological and geophysical activities and the remainder for overhead, well maintenance and compliance. The 2014 drilling program is expected to support 2015 sales volume of 575-600 Bcfe (Billions of cubic feet equivalent).

EQT plans to invest \$475 million in 2014 in EQT Midstream. The breakdown is estimated to be \$345 million for Marcellus gathering infrastructure and \$90 million for upgrades to the Allegheny Valley Connector, a Federal Energy Regulatory Commission regulated transmission pipeline that EQT acquired as part of the sale of its utility business, and the remainder for maintenance and compliance activities.

<http://www.daily-jeff.com/business/2014/01/05/eqt-corporation-announced-2014-operational-forecast>

(The daily Jefferson) 1/5/14



## Will T. Boone Pickens' Big Bet on Natural Gas Vehicles Pay off in 2014?

Investors were looking at Clean Energy Fuels (NASDAQ: CLNE ) with high hopes a year ago. Let's take a closer look at what we learned in 2013, and what it could mean for 2014 and beyond.

### Insider bets and strong partnerships

CEO Andrew Littlefair bought \$1.5 million in shares in September, and founder T. Boone Pickens' massive \$60 million investment in the spring took his personal stake to nearly one-quarter of the company. For Littlefair, who has been a regular seller of at least part of his stock grants that are part of his compensation, this was his first large buy on the open market since Clean Energy's IPO. For Pickens, it was an emphatical vote of confidence, as well as seizing the opportunity to cash out Chesapeake Energy, which had made an early investment in Clean Energy Fuels to help create a larger market for the natural gas that it produces.

Additionally, the company formed two separate partnerships with General Electric (NYSE: GE ) : The first will see the companies work together to develop plants to convert compressed natural gas (CNG) to its liquefied form (LNG), which is then used in industrial applications and as the preferred fuel for long-range transportation due to its higher energy density versus CNG. The second is a deal with GE Capital to open up financing options for shippers, helping shippers get a faster return on their investment into NG-powered trucks.

GE has made a number of large bets on natural gas vehicles, including its work with **CSX** and Berkshire Hathaway subsidiary BNSF Railways to develop natural gas-powered locomotives. BNSF is also working with **Caterpillar**, which is partnered with another close ally of Clean Energy, Westport Innovations (NASDAQ: WPRT ) , to develop locomotive engines that will run off natural gas and make the kind of power needed to pull more than 100 train cars.

Lastly, and likely most important, are Clean Energy's partnerships with private companies Pilot/Flying J, where it will co-locate at least 150 LNG refueling stations for heavy trucking, and Mansfield Energy, one of the largest private fuel services company in the U.S. and a major player in "behind the gate" service to large trucking fleets. These two partners open up major access to the largest fleet operators in the country.

### Focusing on core businesses



Westport iCE Pack tank system. Source: Westport Innovations

When Clean Energy sold BAF Technologies to Westport in June, there was some concern that the company was giving away an important part of the business. However, by removing this area where Clean Energy actually competed with Westport -- maybe the most important company for Clean Energy's near-term success -- this allowed the two to more formally partner with less potential conflict of interest. With both companies agreeing to invest \$5 million for co-marketing, and Clean Energy taking its payment in the form of Westport stock, the two companies are more aligned in seeing the other's success.

And at the end of the day, Westport is in the business of natural gas engines, Clean Energy is in the fuel services business, and taking BAF (which Littlefair claims was a slight money-loser for Clean Energy anyway) out of the equation means more direct investment in the core business of growing access to NG for fleet vehicles.

<http://www.fool.com/investing/general/2014/01/05/will-t-boone-pickens-big-bet-on-natural-gas-vehicl.aspx>

By Jason Hall (The Motley Fool) 1/5/14



### **Year in Review: LNG exports gain steam in 2013**

At the beginning of 2013, there was only one company that had approval to export liquefied natural gas to countries that don't have a Free Trade Agreement. By the end of the year, there were four — three of which were in Houston.

The first permit was granted more than two years ago to Houston's Cheniere Energy Inc. (NYSE: LNG). In May, the department granted its second non-FTA approval in a permit to Freeport LNG Expansion LP, also in Houston. Houston-based Lake Charles Exports LLC in August received the third such approval granted by the Obama administration, and Virginia-based Dominion Resource Inc. in September became the fourth company to get Energy Department approval.

Most recently, Freeport was approved to export even more LNG, and it signed a \$1.3 billion equity agreement with IFM Investors to fund Freeport's proposed natural gas liquefaction and LNG loading facility, which involves the development of three liquefaction plants, also known as "trains."

Many permits are still pending, but when Ernest Moniz became secretary of the U.S. Department of Energy in 2013, he pledged to move the approval process along.

<http://www.bizjournals.com/houston/news/2013/12/26/year-in-review-lng-in-2013.html>

Olivia Pulsinelli Web producer (Houston Business Journal) 1/ 3/14,

### **Korea Gas formalizes deal to resell part of US Sabine Pass shale gas to Total**

State-owned Korea Gas Corp has formalized an agreement with Total to resell 700,000 mt/year of shale gas to Total out of 3.5 million mt/year the South Korean utility will buy from the US Sabine Pass project from 2017, a Kogas official told Platts Monday.

Kogas and Total Gas & Power North America signed a formal accord on December 31, under which the South Korean company will resell 700,000 mt/year of shale gas to Total for 20 years starting 2017. "The price will be linked to the Henry Hub gas price," the official said. "The selling price will be same as the price Kogas imports from the Sabine Pass project," he added.

The volume will be part of 3.5 million mt/year of US shale gas Kogas plans to import for 20 years beginning 2017 from the Sabine Pass project. Under the deal, Kogas was to take 2.8 million mt/year while Total was to get the remaining 700,000 mt/year, according to the Kogas official. "Last week's accord was the formal agreement between Kogas and Total over the resale," the official said. Kogas plans to bring all of the remaining 2.8 million mt/year to South Korea to help stabilize domestic prices, the official added.

The Kogas-Total deal came just after South Korea's parliament approved a bill that allows local LNG importers to resell part of shipments from abroad to foreign markets.

<http://www.platts.com/latest-news/natural-gas/seoul/korea-gas-formalizes-deal-to-resell-part-of-us-27797547>

Seoul (Platts) 1/6/14

### **Asian LNG buyers come together to demand fair pricing: PM**

Prime Minister Manmohan Singh today called upon major Asian buyers of LNG to come together to demand a fair pricing mechanism for gas being imported from outside of continent as the region has been a driver of the global LNG demand in recent times.

"Asia has been the driver of the global LNG demand in recent times. It is therefore important that major buyers of LNG in Asia come together to demand a fair pricing mechanism for gas being imported from outside of Asia," Singh said while dedicating to the nation the Rs 4,500 crore Petronet LNG terminal at nearby Puthyype here.

[http://www.business-standard.com/article/pti-stories/asian-lng-buyers-come-together-to-demand-fair-pricing-pm-114010400601\\_1.html](http://www.business-standard.com/article/pti-stories/asian-lng-buyers-come-together-to-demand-fair-pricing-pm-114010400601_1.html)

(Press Trust of India | Kochi) 1/ 4/14

## Local Ohio Gas Wells Are Most Productive

### Belmont, Monroe, and Harrison County Sites Pumping Out Most in State

ST. CLAIRSVILLE - In Belmont County, there are natural gas wells nicknamed "Big Foot" and "Blue Thunder," along with a "monster" lurking deep within the area known as Egypt Valley. Given those monikers, it comes as no surprise that Belmont County, along with Monroe and Harrison, top the state of Ohio in terms of natural gas production, according to new data from the Ohio Department of Natural Resources. The ODNR report lists production data for 245 Ohio wells.



Photo by Casey Junkins

Ohio Department of Natural Resources statistics show that local natural gas wells are the most productive in the state. The report, which covers production from the third quarter of 2013, indicates that energy companies extracted more than twice as much oil and gas from Ohio during those three months than in all of 2012.

It is the first report that now will be released each quarter by the state of Ohio due to a new law requiring drilling companies to file production updates ever three months instead of once a year.

The report states that the 245 wells produced a total of 1.3 million barrels of oil and 33.6 billion cubic feet of natural gas from July through September. By comparison, in all of 2012, 85 wells produced 635,876 barrels of oil and 12.8 billion cubic feet of gas.

<http://www.theintelligencer.net/page/content.detail/id/594195/Local-Ohio-Gas-Wells-Are-Most-Productive.html?nav=515>

By CASEY JUNKINS - Staff Writer (The Intelligencer / Wheeling News-Register) 1/5/14

### Alliant Energy converting Clinton generating station to natural gas

Alliant Energy plans to convert the fuel source of the M.L. Kapp Generating Station in Clinton from coal to natural gas in the spring of 2015.

The move is anticipated to reduce the facility's total nitrogen oxide, particulate, mercury and carbon dioxide emissions and nearly eliminate sulfur dioxide emissions. The utility said the fuel switch is an economical way for the M.L. Kapp facility to meet future environmental regulations and provide customers with economic energy.

M.L. Kapp will be the fourth generating facility in Alliant Energy's Iowa and Minnesota service territory to switch from coal to natural gas.

Through planned and completed fuel-switching, retirements, and the installation of air quality control systems, Alliant Energy expects to make progress toward cleaner emissions from its fleet by the end of 2016.

The Madison, Wis.-based utility projects mercury will be reduced by 84 percent, sulfur dioxide will be reduced by 72 percent, filterable particulate matter will be reduced by 34 percent, and nitrogen oxide will be reduced reduced by 22 percent.

<http://thegazette.com/2014/01/04/alliant-energy-converting-clinton-generating-station-to-natural-gas/>

Business reporter Chelsea Keenan (The Gazette) 1/4/14



### **Pa. key player in U.S. energy renaissance**

Government regulations and the rivalry between coal and natural gas will continue to dominate the nation's energy picture in 2014, and Pennsylvania remains key to production, experts say.

Analysts expect an improving economy will boost demand for electricity and oil. That oil increasingly will come from domestic sources, which could further improve the economy, while utilities rely more on natural gas to replace outdated, coal-fired power plants and meet growing demand.

“Overall, we're just at this critical juncture for energy development,” said Rayola Dougher, a senior economic adviser for the American Petroleum Institute. The industry group strives to ease government restrictions.

“The outlook for natural gas is a very big one,” said James Stevenson, an energy analyst at Colorado-based IHS. “Coal and gas are so competitive in terms of price, they're in a sweet spot.” Government and market decisions expected in 2014 that might impact prices and energy development include new limits on carbon emissions at power plants, lifting a nearly 40-year ban on crude oil exports, expanding oil and gas pipelines, and approving more ports for shipping liquefied natural gas overseas.

<http://triblive.com/news/editorspicks/5334422-74/gas-coal-energy#axzz2peUWmt70>

By Staff Reporter David Conti [dconti@tribweb.com](mailto:dconti@tribweb.com)

(Trib Live News)

1/4/14

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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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