

October 20, 2014

Natural Gas Trends

Highlights

Haynesville drilling efficiency leads nation

Natural gas drilling productivity in Louisiana's Haynesville Shale continues to grow as operators there increasingly move to pad drilling, according to industry sources and the Energy Information Administration's monthly Drilling Productivity Report issued Tuesday. Haynesville rigs added a leading 114 Mcf/d more gas production per rig in September and have added 1,230 Mcf/d per rig in a year's time, the EIA said. Total production out of the Haynesville was 5.28 Bcf/d.

The Utica Shale was tied in per-rig production, also adding 114 more Mcf/d of natural gas for each rig in September, continuing strong growth that has seen per-rig productivity grow 1,586 Mcf/d per rig in the Ohio play over the past year. September production in the Utica should be around 1.4 Bcf/d, EIA said, 835,180 Mcf more than last year at the same time.

Total gas production volume growth was greatest in Texas' Eagle Ford Shale and the Marcellus Shale in September, the EIA's data indicated. Total production in both the Haynesville and Utica grew less than 100 Mcf/d, while the Eagle Ford saw gas volumes grow 102,000 Mcf/d to 6.8 Bcf/d and the Marcellus saw its total production jump a nation-leading 217,000 Mcf/d to 15.6 Bcf/d, EIA said. The Marcellus also showed the most explosive growth in total volumes year-over-year, adding 3.55 Bcf/d since last September, EIA data showed.

Louisiana Oil & Gas Association Communications Director Ragan Dickens pegged the Haynesville's surge in efficiency directly to the increased use of mobile rigs and pad drilling. "We're seeing the general price for a well come down from \$10 million in 2010 to \$7.5 million to \$8 million," he said. Often given up for dead because of its greater depth, the Haynesville Shale's rig count has fallen precipitously from above 200 rigs in 2013 to 55 in September, a pick-up of nine rigs over the past year. By comparison, EIA counted 285 rigs in the Eagle Ford, 99 rigs in the Marcellus, and 28 rigs in the Utica, with only the Utica and the Haynesville showing much gain in rig count.

While pad drilling is pushing up production gas volumes in the Haynesville and Marcellus, oil and liquids are driving gas production from the Eagle Ford, EIA data shows. Oil production from the South Texas play has grown 415,180 b/d in the past year to 1.54 million b/d in September, EIA said.

Pemex unit takes all capacity on Tennessee South System Project

MexGas supply, the natural gas supply arm of Mexico's state-owned Petroleos Mexicanos, has been awarded all of the 500,000 Dt/d of capacity on Tennessee Gas Pipeline's proposed South System Flexibility Project after a binding open season, Tennessee parent Kinder Morgan Energy Partners said Tuesday.

The \$187 million project will boost capacity along the 900-mile Tennessee system from Tennessee to Texas and expand Kinder Morgan's transportation service to Mexico, the company said. The project is set to begin service as early as January 1, 2015.

Tennessee's East Region Natural Gas Pipeline President Kimberly Watson said "Mexico is increasing development of its energy infrastructure to meet the country's rapidly growing demand, and this project builds upon our long-standing relationship with MexGas to provide additional natural gas transportation to complement Mexico's development plans."

Tennessee also noted that it launched a binding open season on October 9 for its proposed Lone Star expansion project, which would boost capacity by 300,000 Dt/d from Tennessee to South Texas for future infrastructure projects. The pipeline said it "has secured an unnamed foundation shipper for this project and will announce the results and further details upon the close of the open season," set to end on October 31. Volumes already committed are enough to proceed with the project, Tennessee added.

Source: Platts Gas Daily

Data

- November 2014 Natural Gas Futures Contract (as of October 17), NYMEX at Henry Hub closed at \$3.766 per million British thermal units (MMBtu)
- November 2014 Light, Sweet Crude Oil Futures Contract WTI (as of October 17), closed at \$82.75 per U.S. oil barrel (Bbl.) or approximately \$14.27 per MMBtu

Last week: Texas warmer than normal

For the week beginning 10/12/14 and ending 10/18/14, cooling degree days (CDD) were higher than normal (warmer) for the week and for the year to date for most Texas cities shown.

Source: www.cpc.ncep.noaa.gov

COOLING DEGREE DAYS (CDD)				
City or Region	Total CDD for week ending 10/18/14	*Week CDD +/- from normal	Year-to-date total CDD	* YTD % +/- from normal
Amarillo	5	0	1518	13%
Austin	21	-25	2758	-3%
DFW	27	2	2877	14%
El Paso	24	9	2632	17%
Houston	49	4	2924	7%
SAT	49	0	3347	15%
Texas**	36	0	2632	3%
U.S.**	13	1	1256	6%

* A minus (-) value is cooler than normal; a plus (+) value is warmer than normal. NOAA uses 65° Fahrenheit as the 'normal' basis from which CDDs are calculated. ** State and U.S. degree days are population-weighted by NOAA.

-999 = Normal Less Than 100 or Ratio Incalculable

Last week: U.S. natural gas storage at 3,299 Bcf

For the week ending 10/10/2014 working gas in storage increased from 3,205 Bcf to 3,299 Bcf. This represents an increase of 94 Bcf from the previous week. Stocks were 344 Bcf lower than last year at this time and 362 Bcf below the 5 year average of 3,661 Bcf.

Source: <http://ir.eia.gov/ngs/ngs.html>

U.S. WORKING GAS IN STORAGE				
Region	Week ending 10/10/14	Prior week	One-week change	Current Δ from 5-YR Average (%)
East	1,825	1,776	49	-7.6%
West	474	464	10	-7.2%
Producing	1,000	965	35	-14.7%
Lower 48 Total	3,299	3,205	94	-9.9%

Lower 48 states, underground storage, units in billion cubic feet (Bcf)

Last week: U.S. gas rig count up for the week

The gas rig count for the U.S. was up eight for the week and down 44 when compared to twelve months ago. The total rig count for the U.S. was down 12 from last week and was up 179 when compared to twelve months ago. The total rig count includes both oil and natural gas rotary rigs.

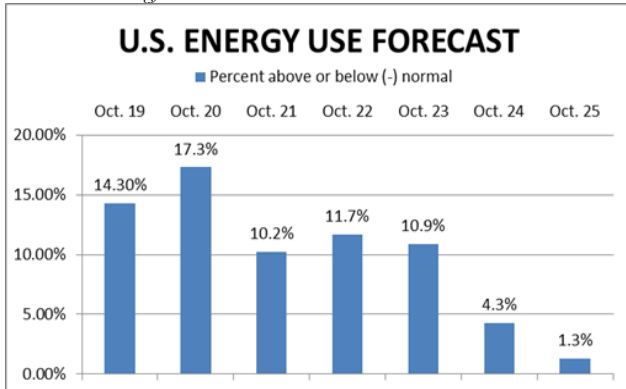
Source: Baker Hughes

BAKER HUGHES ROTARY RIG COUNT				
	As of 10/17/2014	+/- prior week	Year ago	+/- year ago
Texas	898	2	817	81
U.S. gas	328	8	372	-44
U.S. oil	1590	-19	1361	229
U.S. total	1918	-12	1739	179
Canada	417	-3	388	29

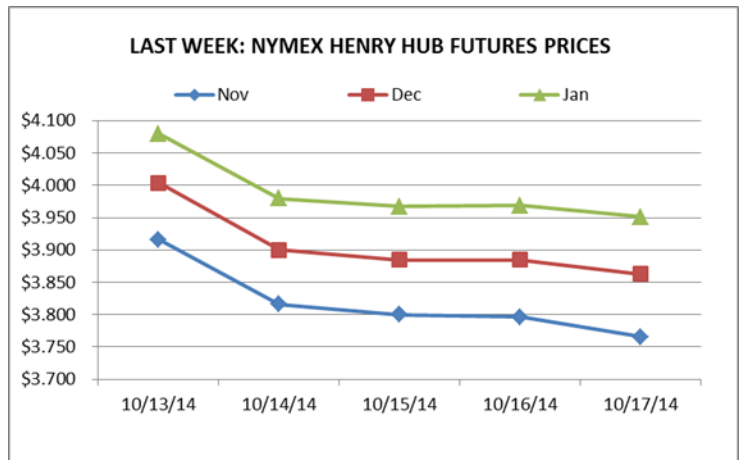
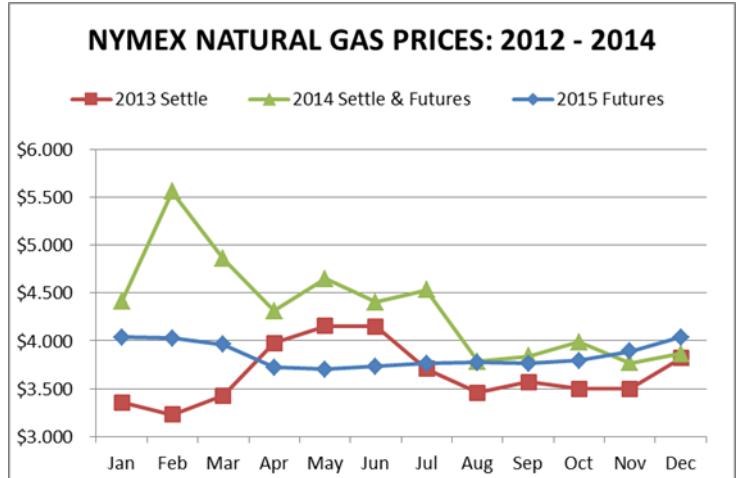
This week: U.S. energy above normal

U.S. energy use is predicted to be above normal this week, according to the Dominion Energy Index, as shown below. Dominion forecasts total U.S. residential energy usage, a component of which is natural gas.

Source: Dominion Energy Index



2014 prices. Natural gas prices for 2014, shown below in green, are the NYMEX settlement prices for Jan.-Oct. and futures prices for the remainder of the year.



NATURAL GAS PRICE SUMMARY AS OF 10/17/2014

	This Week	+/- Last Week	+/- Last Year	12-Month Strip Avg.
US Nov. futures				
NYMEX	\$3.766	-\$0.093	\$0.268	\$3.863