

December 21, 2015

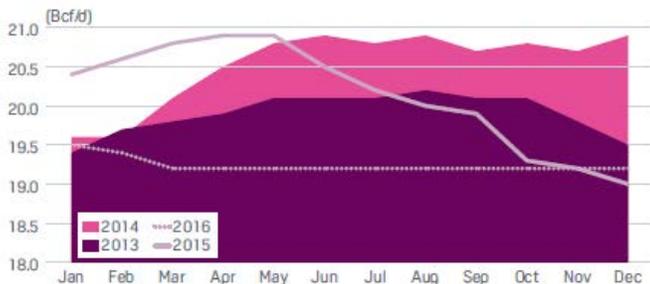
Natural Gas Trends

Highlights

Texas production at risk of further declines

Texas dry gas production declines, which totaled nearly 0.4 Bcf/d in 2015, were expected to level out in 2016, but recent commodity price declines point to further downside risk. Texas total dry gas production averaged 20.1 Bcf/d this year, down 2% from 2014, but dropped sharply in the last eight months of the year, declining nearly 2 Bcf/d from a high of 20.9 Bcf/d in May, or about 1% per month. The state's production is currently averaging about 19Bcf/d, or about 0.6 Bcf/d less than Platts Bentek expected would be the December average. Unless there is a sudden recovery, Texas is likely to finish the year below 2013 year-ending levels and possibly about 2 Bcf/d below levels last year. Since the beginning of the year, all producing plays and basins in the state have shown declining production receipts with the exception of the Permian (where production has risen by 0.2 Bcf/d since January) and East Texas (where production is up 0.1 Bcf/d since January). However, starting this month, declines were seen across the board in all Texas producing areas. Permian production is down nearly 0.2 Bcf/d from November.

Texas Dry Gas Production



One of the primary leading indicators for Texas production trends is drilling activity, which has declined 51% from levels at the same time last year. Declines also have accelerated in the last month. The Permian, Eagle Ford and Haynesville has been the most insulated from falling producer capital expenditure budgets, but drilling in the basins and plays is now down by 49%, 48%, and 38% compared to last year, respectively. The Permian has been resisting production declines because of increased drilling efficiency and rising IP rates, which were offsetting reduced drilling activity. The Permian Basin is now the only play in Texas where an average well can still provide half-cycle rates of return per well above 20%. Haynesville and Barnett returns per well are near zero or negative. The diminished commodity price environment, however, puts even current Permian drilling rates at risk, potentially pointing towards further Texas production declines in 2016. With efficiency gains potentially maxed out across the Texas producing areas, lower drilling rates may translate into steeper corollary production declines than have been observed over the last year. Source: Platts Gas Daily

Data

- January 2015 Natural Gas Futures Contract (as of December 18), NYMEX at Henry Hub closed at \$1.767 per million British thermal units (MMBtu)
- January 2016 Light, Sweet Crude Oil Futures Contract WTI (as of December 18), closed at \$34.73 per U.S. oil barrel (Bbl.) or approximately \$5.99 per MMBtu

Last week: Texas warmer than normal last week

For the week beginning 12/13/15 and ending 12/19/15, heating degree days (HDDs) were lower than normal (warmer) on average for the week and for the year to date for most Texas cities shown.

Source: www.cpc.ncep.noaa.gov

HEATING DEGREE DAYS (HDD)				
City or Region	Total HDD for week ending 12/19/15	*Week HDD +/- from normal	Year-to-date total HDD	* YTD % +/- from normal
Amarillo	195	-5	1056	-25%
Austin	80	-13	376	-20%
DFW	85	-45	428	-38%
El Paso	144	1	647	-24%
Houston	54	-30	255	-42%
SAT	66	-23	274	-40%
Texas**	77	-31	418	-29%
U.S.**	131	-55	1070	-23%

* A minus (-) value is warmer than normal; a plus (+) value is cooler than normal. NOAA uses 65° Fahrenheit as the 'normal' basis from which HDDs 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 3,846 Bcf

For the week ending 12/11/2015 working gas in storage decreased from 3,880 Bcf to 3,846 Bcf. This represents a decrease of 34 Bcf from the previous week. Stocks were 108 Bcf higher than last year at this time and 185 Bcf above the 5 year average of 3,524 Bcf.

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

U.S. WORKING GAS IN STORAGE				
Region	Week ending 12/11/15	Prior week	One-week change	Current Δ from 5-YR Average (%)
East	894	910	-16	4.6%
Midwest	1,066	1,083	-17	8.0%
Mountain	203	203	0	2.0%
Pacific	361	361	0	8.7%
South Central	1,322	1,323	-1	14.8%
Lower 48 Total	3,846	3,880	-34	9.1%

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

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

The gas rig count for the U.S. was down 17 for the week and down 170 when compared to twelve months ago. The total rig count for the U.S. was remained the same compared to last week but was down 1166 when compared to twelve months ago. The total rig count includes both oil and natural gas rotary rigs.

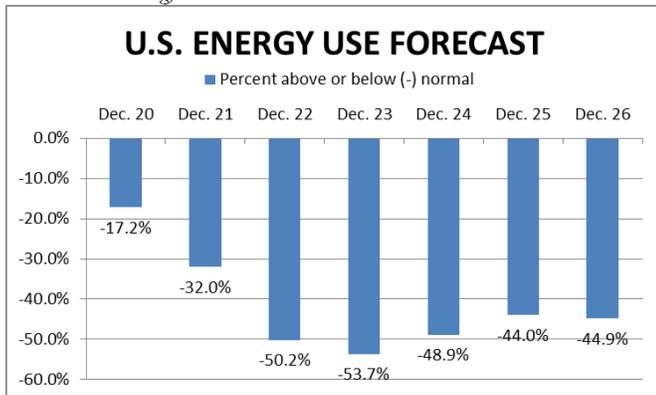
Source: Baker Hughes

BAKER HUGHES ROTARY RIG COUNT				
	As of 12/11/2015	+/- prior week	Year ago	+/- year ago
Texas	320	-4	868	-548
U.S. gas	168	-17	338	-170
U.S. oil	541	17	1536	-995
U.S. total	709	0	1875	-1166
Canada	162	-12	391	-229

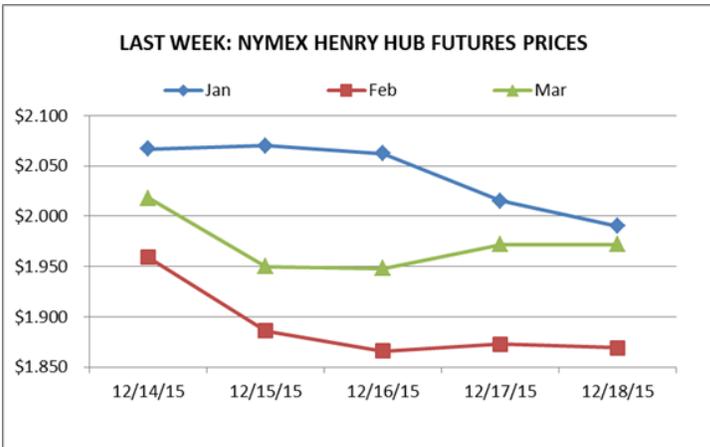
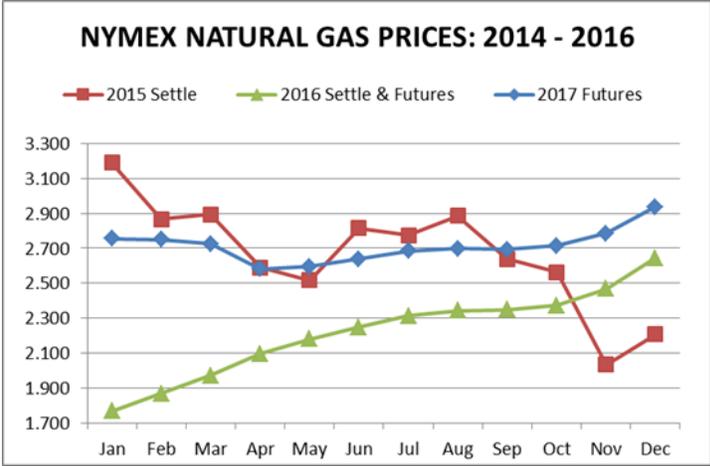
This week: U.S. energy below average this week

U.S. energy use is predicted to be below average 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



2016 prices. Natural gas prices for 2016, shown below in green, are the NYMEX futures prices for the year.



NATURAL GAS PRICE SUMMARY AS OF 12/18/2015

	This Week	+/- Last Week	+/- Last Year	12-Month Strip Avg.
US January futures				
NYMEX	\$1.767	-\$0.223	-\$1.961	\$2.664