

March 7, 2016

Natural Gas Trends

Highlights

Mexico gas production expected to fall in 2016

The \$5.5 billion budget cut planned by Mexico's state-owned petroleum company Petroleos Mexicanos for 2016 is expected to continue the country's downward natural gas production trend. Mexico's gas production dropped 9% (360 MMcf/d) last year to about 4 Bcf/d as its rig count plummeted 59%. Over the last five years, natural gas production in Mexico has declined at a faster rate than oil production, on which the Mexican government relies heavily for revenues. While gas production is now averaging 1 Bcf/d (25%) below the 2010 average, crude oil production has only fallen by about 0.3 Mb/d, or 14% over the same period. This is likely due to increased emphasis on oil-directed drilling, much like what occurred in the United States over the last five years. This focus on crude rather than gas was evident in regional production trends. The Northern Region, the home of the Burgos basin, an extension of the Eagle Ford shale, saw the steepest declines, falling 90% in five years from 61 active rigs in 2010 to about seven rigs currently. Most of these declines occurred prior to the oil price collapse of late 2014.

In contrast, offshore oil-directed drilling in the Southern and Northeastern Marine Regions saw a slight increase in drilling activity prior to the oil price collapse. However, as commodity prices have continued to fall over the last year, there has been further slowing of drilling activity across all producing areas, with drilling in the Northern Region all but stopping in late 2015 and Northern Marine drilling falling to around five rigs over the last six months. The Burgos was the epicenter of new shale gas drilling efforts in the late 2000s and early 2010s, but between 2013 and 2015 production receipts in the basin dropped 40% from a peak of 1 Bcf/d in early 2013 to 0.6 Bcf/d currently. In contrast, production receipts at the Nuevo Pemex plant, which largely processes offshore associated gas from the Southern Marine Region, increased about 0.1 Bcf/d over the last year to more than 1 Bcf/d at the end of 2015.

Looking forward, the official forecast from SENER, the agency under Mexico's secretary of energy, suggests that total Mexican natural gas production will average just over 4 Bcf/d in 2016, a 150 MMcf/d decline from 2015. However, recent Pemex data indicates an even greater risk to the downside. Official Pemex data shows that 2015 actual production came in 150 MMcf/d lower than SENER expectations, suggesting that Mexican production could come in 150 MMcf/d lower than the SENER forecast, or at about 3.85 Bcf/d. SENER also assumes a 1 Bcf/d increase in gas demand from the petroleum sector in 2016, largely supported by an assumed resumption in crude oil production growth. However, this assumed growth in crude oil production comes in stark contrast to the massive budget cuts facing Pemex.

Source: Platts Gas Daily

Data

- April 2016 Natural Gas Futures Contract (as of March 4,) NYMEX at Henry Hub closed at \$1.666 per million British thermal units (MMBtu)
- April 2016 Light, Sweet Crude Oil Futures Contract WTI (as of March 4), closed at \$35.92 per U.S. oil barrel (Bbl.) or approximately \$6.19 per MMBtu

Last week: Texas warmer than normal last week

For the week beginning 2/28/16 and ending 3/5/16, heating degree days (HDDs) were lower than normal (warmer) on average for the week and for the year to date for all Texas cities shown.

Source: www.cpc.ncep.noaa.gov

HEATING DEGREE DAYS (HDD)				
City or Region	Total HDD for week ending 3/5/16	*Week HDD +/- from normal	Year-to-date total HDD	* YTD % +/- from normal
Amarillo	70	-78	2795	-20%
Austin	18	-37	1249	-16%
DFW	26	-55	1432	-32%
El Paso	10	-71	1821	-18%
Houston	18	-35	924	-32%
SAT	5	-27	953	-33%
Texas**	31	-37	1317	-25%
U.S.**	135	-23	2936	-17%

* 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 2,584 Bcf

For the week ending 2/26/2016 working gas in storage decreased from 2,584 Bcf to 2,536 Bcf. This represents a decrease of 48 Bcf from the previous week. Stocks were 794 Bcf higher than last year at this time and 666 Bcf above the 5 year average of 1,870 Bcf.

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

U.S. WORKING GAS IN STORAGE				
Region	Week ending 2/26/16	Prior week	One-week change	Current Δ from 5-YR Average (%)
East	495	512	-17	25.0%
Midwest	621	645	-24	42.1%
Mountain	145	147	-2	15.1%
Pacific	255	256	-1	20.9%
South Central	1,020	1,024	-4	45.5%
Lower 48 Total	2,536	2,584	-48	35.6%

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 five for the week and 171 when compared to twelve months ago. The total rig count for the U.S. was down 13 compared to last week and down 703 when compared to twelve months ago. The total rig count includes both oil and natural gas rotary rigs.

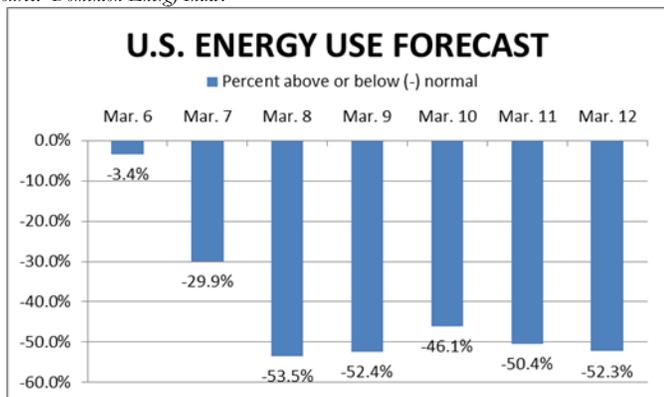
Source: Baker Hughes

BAKER HUGHES ROTARY RIG COUNT				
	As of 3/4/2016	+/- prior week	Year ago	+/- year ago
Texas	227	-4	538	-311
U.S. gas	97	-5	268	-171
U.S. oil	392	-8	922	-530
U.S. total	489	-13	1192	-703
Canada	129	-46	300	-171

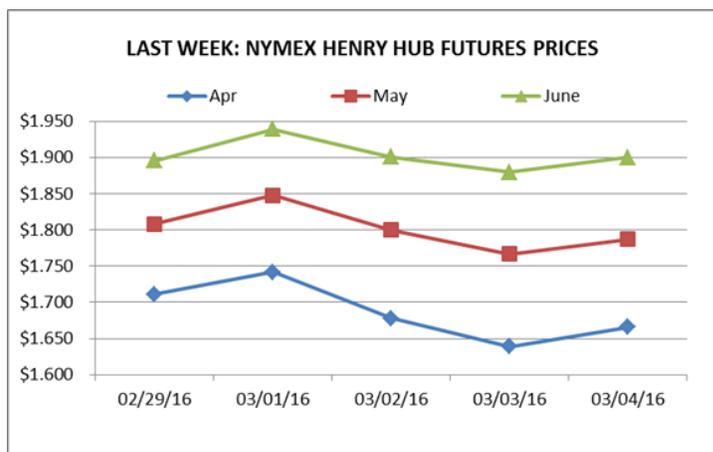
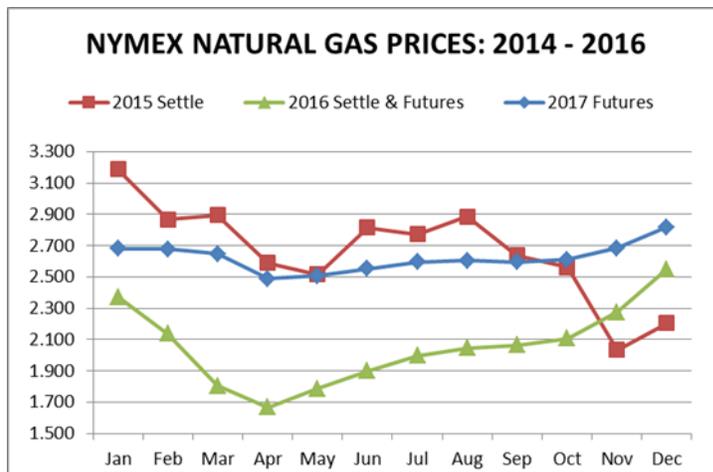
This week: U.S. energy use below average

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 settlement prices for Jan-Mar. and futures prices for the year.



NATURAL GAS PRICE SUMMARY AS OF 3/4/2016

	This Week	+/- Last Week	+/- Last Year	12-Month Strip Avg.
US April futures				
NYMEX	\$1.666	-\$0.125	-\$2.062	\$2.664