

**March 30, 2015**

# Natural Gas Trends

## Highlights

### CFE to increase use of gas, renewables

Mexico's Comision Federal Electricidad (CFE), Mexico's largest power producer, has announced that it plans to increase the use of renewables and natural gas by reducing its use of oil for power generation by 90% by 2017 compared to 2012 levels. According to data released by Mexico's Secretaria De Energia (SENER), the CFE burned approximately 2.7 million liters of fuel oil per day and 160,000 liters of diesel per day for power generation in 2012. On a gas-equivalent basis, Bentek estimates that amounts to around 840 MMcf/d and 51 MMcf/d of natural gas, respectively. To reach the 90% reduction goal by 2017, the CFE will need to reduce fuel oil consumption by 2.4 million liters per day (756 MMcf/d gas equivalent) and diesel consumption by 146,000 liters per day (46 MMcf/d gas equivalent) from 2012 levels. In the year 2014, the CFE had already made significant headway into reducing its reliance on oil-based fuels, with fuel oil consumption falling to 1.5 million liters per day (463 MMcf/d gas equivalent) and diesel consumption falling to 75,000 liters per day (24 MMcf/d gas burn equivalent). Strong hydropower generation in 2014 is partly responsible for this drop. Despite this progress, the CFE still needs to cut fuel oil consumption by another 1.2 million liters per day and diesel by another 59,000 liters per day from 2014 levels, suggesting a combined maximum uplift to gas-fired power generation of around 400 MMcf/d over the next two years if all oil-based generation were to be replaced with natural gas.

However, the CFE also plans to increase its use of renewables over the next two years as well. There are currently 15 renewable energy projects in the pipeline, which will provide up to 2.7 GW of new generation capacity. This build-out will include eight wind farms, two hydroelectric dams and five geothermal plants, suggesting that renewables could fill in between 100-200 MMcf/d of the estimated demand requirements due to lost oil-based generation capacity.

Despite these plans for new renewable generation, Bentek still expects strong growth in Mexican demand for gas-fired power generation. Mexico currently has 11 natural gas pipelines in various stages of planning and construction and over 8 GW of gas-fired generation capacity in development between now and the end of 2018. Bentek estimates that as much as 4.8 Bcf/d of additional US to Mexico gas pipelines could be built within the next three years, providing Mexican consumers unprecedented access to burgeoning US shale resources, which could lead to a doubling of US gas exports to Mexico over the next three years.

Much of this progress is being driven by the liberalization of the Mexican energy sector and it is creating significant growth opportunities for the country's economy and for foreign investors. The energy reform will promote investments along the entire energy value chain, including oil and gas gathering, gas processing, NGL fractionation, crude refining, hydrocarbon transportation and power generation. Source: Platts Gas Daily

## Data

- April 2015 Natural Gas Futures Contract (as of March 27), NYMEX at Henry Hub closed at \$2.590 per million British thermal units (MMBtu)
- April 2015 Light, Sweet Crude Oil Futures Contract WTI (as of March 27), closed at \$48.87 per U.S. oil barrel (Bbl.) or approximately \$8.43 per MMBtu

### Last week: Texas warmer than normal

For the week beginning 3/22/15 and ending 3/28/15, heating degree days (HDD) 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](http://www.cpc.ncep.noaa.gov)

HEATING DEGREE DAYS (HDD)				
City or Region	Total HDD for week ending 3/28/15	*Week HDD +/- from normal	Year-to-date total HDD	* YTD % +/- from normal
Amarillo	51	-55	3558	-8%
Austin	18	-8	1952	23%
DFW	20	-20	2336	3%
El Paso	11	-38	1997	-17%
Houston	6	-19	1457	-1%
SAT	8	-15	1486	-2%
Texas**	26	-12	2006	6%
U.S.**	125	8	3948	0%

\* 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 1,479 Bcf

For the week ending 3/20/2015 working gas in storage increased from 1,467 Bcf to 1,479 Bcf. This represents an increase of 12 Bcf from the previous week. Stocks were 575 Bcf higher than last year at this time and 194 Bcf below the 5 year average of 1673 Bcf.

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

U.S. WORKING GAS IN STORAGE				
Region	Week ending 3/20/15	Prior week	One-week change	Current Δ from 5-YR Average (%)
East	559	581	-22	-22.0%
West	344	338	6	27.4%
Producing	576	548	28	-15.9%
Lower 48 Total	1,479	1,467	12	-11.6%

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 nine for the week and down 85 when compared to twelve months ago. The total rig count for the U.S. was down 21 from last week and down 761 when compared to twelve months ago. The total rig count includes both oil and natural gas rotary rigs.

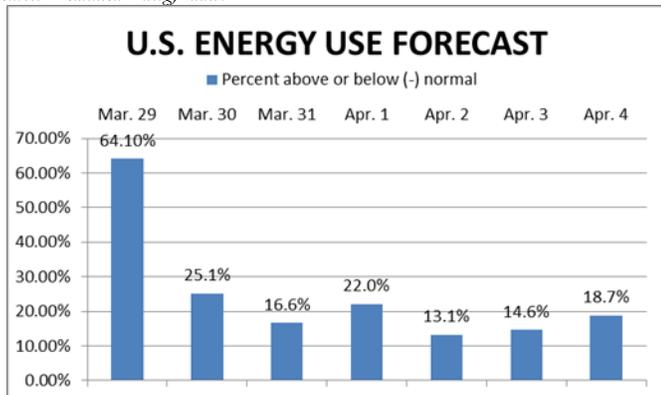
Source: Baker Hughes

BAKER HUGHES ROTARY RIG COUNT				
	As of 3/27/2015	+/- prior week	Year ago	+/- year ago
Texas	462	-3	866	-404
U.S. gas	233	-9	318	-85
U.S. oil	813	-12	1487	-674
U.S. total	1048	-21	1809	-761
Canada	120	-20	298	-178

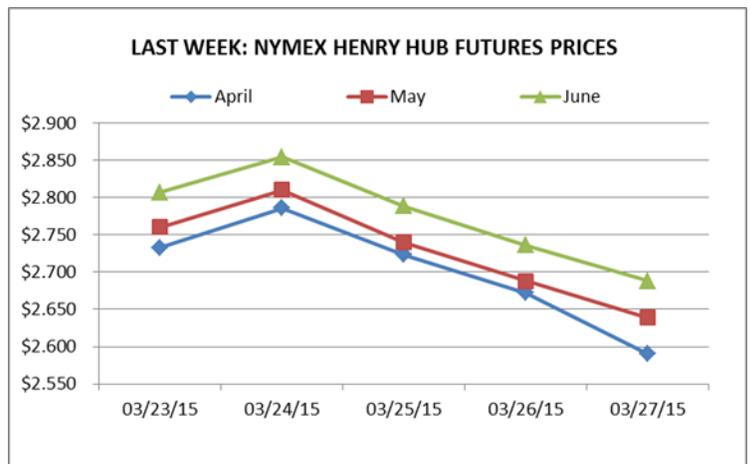
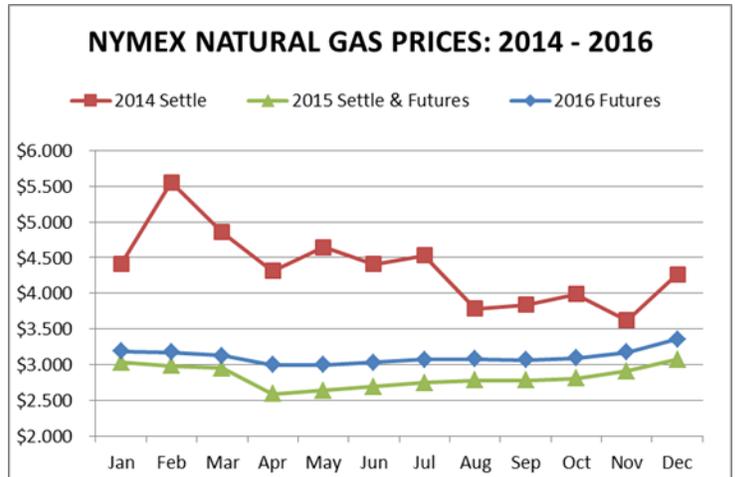
**This week: U.S. energy above average this week**

U.S. energy use is predicted to be above 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



2015 prices. Natural gas prices for 2015, shown below in green, are the NYMEX settlement prices for Jan.-Mar. and futures prices for the remainder of the year.



**NATURAL GAS PRICE SUMMARY AS OF 3/27/2015**

This Week	+/- Last Week	+/- Last Year	12-Month Strip Avg.
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US April futures

NYMEX	\$2.590	\$0.000	-\$2.265	\$2.831
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