

January 19, 2016

# Natural Gas Trends

## Highlights

### SE weather, gas prices drive up power burn

Season-to-date power burn demand this winter is up almost 20% from a year ago as El Nino has brought hot weather to the Southeast, spurring demand for cooling, and cheap gas prices have led to fuel switching in the rest of the US. Season-to-date, US power burn has averaged 24.6 Bcf/d, up 3.8 Bcf/d, or 18%, compared to winter 2014-2015. The winter season is defined as November through March.

Except for the Midcon Producing and Rockies regions, which are averaging 78 MMcf/d and 16 MMcf/d behind last winter, all other regions have posted gains ranging from 12% in the Northeast to 40% in the Pacific Northwest. In absolute terms the year-over-year increase has been largely driven by the Southeast region where power burn is averaging 1.5 Bcf/d higher than last winter at 8.3 Bcf/d. The Northeast, Midcon Market, Texas and Southwest regions are all averaging approximately 0.5 Bcf/d higher than last year, while the Pacific Northwest has climbed 0.2 Bcf/d.

### Fuel switching major driver of increased demand

Nationally, fuel switching due to cheap gas prices is estimated to account for 60%, of 2.2 Bcf/d, of the excess power burn demand compared to last winter. The Northeast, Midcon Market and Texas regions follow this national trend, with fuel switching estimated to account for between 63% and 67% of elevated winter power burn demand as national gas prices at Henry Hub this winter have averaged 44% lower than last year at \$2.04/MMBtu. The remainder of incremental power burn growth in these regions can be attributed to infrastructure changes as the Northeast, Midcon Market and Texas regions saw an estimated 10 GW of coal capacity retire in 2015. Cheap gas was a key driver in western markets claiming 90% and 98% of excess burn demand in the Southwest and Pacific Northwest, respectively, as few regional coal retirements occurred in the last year and regional temperatures have been within 1 degree of normal winter-to-date.

### El Nino heats up power burn demand in Southeast

Market conditions in the Southeast have been at the opposite extreme as fuel switching has only claimed 33% of incremental power burn demand growth this winter, with 67% being caused by weather trends and infrastructure changes. El Nino pushed average season-to-date temperatures to 60 degrees Fahrenheit, with highs in the region averaging 66 degrees. Season-to-date cooling demand, as measured in cooling degree days, has increased 300% from normal and 270% from last year. Southeast coal retirements totaled 3.2 GW in 2015 adding to the incremental power burn demand growth this winter.

Looking forward, power burn demand is expected to tail off slightly for the remainder of this winter averaging 24.2 Bcf/d as mild temperatures weigh on power demand but cheap gas prices continue to sustain fuel-switching.

Source: Platts Gas Daily

## Data

- February 2016 Natural Gas Futures Contract (as of January 15), NYMEX at Henry Hub closed at \$2.100 per million British thermal units (MMBtu)
- February 2016 Light, Sweet Crude Oil Futures Contract WTI (as of January 15), closed at \$29.42 per U.S. oil barrel (Bbl.) or approximately \$5.07 per MMBtu

### Last week: Texas warmer than normal last week

For the week beginning 1/10/15 and ending 1/16/16, 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](http://www.cpc.ncep.noaa.gov)

HEATING DEGREE DAYS (HDD)				
City or Region	Total HDD for week ending 1/16/16	*Week HDD +/- from normal	Year-to-date total HDD	* YTD % +/- from normal
Amarillo	198	-12	1874	-17%
Austin	114	2	751	-16%
DFW	128	-23	867	-32%
El Paso	155	8	1237	-14%
Houston	102	4	552	-33%
SAT	92	-13	582	-33%
Texas**	119	-5	815	-24%
U.S.**	200	-9	1748	-21%

\* 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 3,297 Bcf

For the week ending 1/15/2016 working gas in storage decreased from 3,475 Bcf to 3,297 Bcf. This represents a decrease of 178 Bcf from the previous week. Stocks were 629 Bcf higher than last year at this time and 473 Bcf above the 5 year average of 3,297 Bcf.

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

U.S. WORKING GAS IN STORAGE				
Region	Week ending 1/15/16	Prior week	One-week change	Current Δ from 5-YR Average (%)
East	758	802	-44	13.6%
Midwest	879	942	-63	16.4%
Mountain	170	177	-7	4.3%
Pacific	281	295	-14	4.5%
South Central	1,209	1,259	-50	24.6%
Lower 48 Total	3,297	3,475	-178	16.7%

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 13 for the week but was down 175 when compared to twelve months ago. The total rig count for the U.S. was down 14 compared to last week and down 1026 when compared to twelve months ago. The total rig count includes both oil and natural gas rotary rigs.

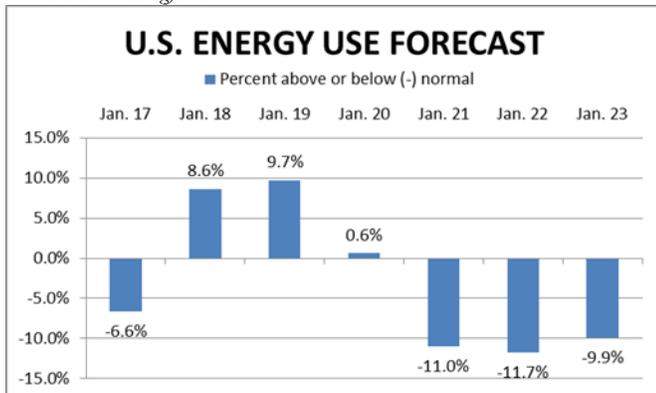
Source: Baker Hughes

BAKER HUGHES ROTARY RIG COUNT				
	As of 1/15/2016	+/- prior week	Year ago	+/- year ago
Texas	301	-7	766	-465
U.S. gas	135	-13	310	-175
U.S. oil	515	-1	1366	-851
U.S. total	650	-14	1676	-1026
Canada	227	61	440	-213

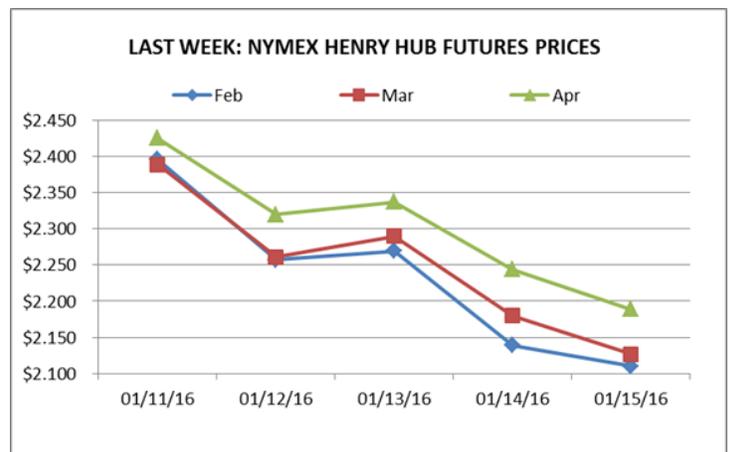
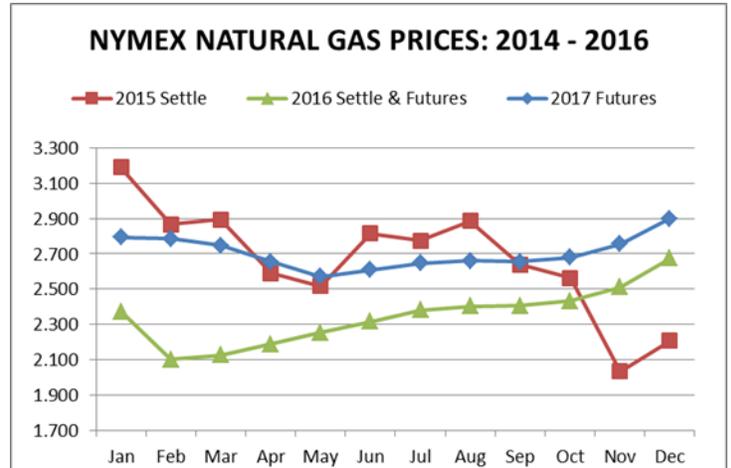
**This week: U.S. energy varies this week**

U.S. energy use is predicted to vary 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. and futures prices for the year.



**NATURAL GAS PRICE SUMMARY AS OF 1/15/2016**

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

US February futures

NYMEX	\$2.100	-\$0.372	-\$1.628	\$2.664
-------	---------	----------	----------	---------