

**October 27, 2014**

# Natural Gas Trends

## Highlights

### WSI: Winter in January, rest of fall to be mild

The heart of the US winter won't arrive until January, while the rest of the fall will remain mild, forecaster WSI said in its latest seasonal outlook released Monday, "As we look towards winter, our blend of statistical and dynamical forecasting tools are suggesting 'a tale of two seasons,' with generally mild weather for the remainder of the fall followed by a pronounced pattern change towards much colder temperatures across parts of the central and eastern US after the New Year," said WSI Chief Meteorologist Dr. Todd Crawford. He also said that the "emergence of the current El Niño event suggests that the focus of the cold weather this winter will be farther east and south than last winter, while other recent changes to atmospheric/oceanic patterns suggest that cold air outbreaks will be more common during late winter." The wild card to the forecast is how much North Atlantic "blocking" will come into play this winter, which will help determine the magnitude of cold weather, Crawford said.

In November, WSI sees colder than normal weather in the Western part of the Southeast region and the South Central area. The rest of the country should trend warmer, including the Northeast and North Central regions, WSI said. Below-normal demand should keep natural gas and power prices soft and stable in November and allow more gas to flow into storage, said Chris Kostas, senior power and gas analyst at ESAI Power in market analysis accompanying the WSI forecast. In December, WSI said colder than normal weather will be concentrated in the South-Central region, with all areas expecting milder than normal temperatures. Northeast energy markets in particular would benefit from a milder than normal December, with prices staying stable, Kostas said. In January, cold becomes more widespread, with chillier than normal weather in the Northeast, Southeast and South-Central regions, WSI said. "With colder-than-normal temperatures expected in the population-rich eastern half of the country, energy demand is likely to increase dramatically in January," which would boost gas prices as well, Kostas said. However, more abundant shale-sourced supply should keep a lid on extreme price volatility in those regions, he added. ESI said it will issue its next three-month forecast on November 21.

### ERCOT studies Valley impact from Fontera power plant changes

Planned outages in the Lower Rio Grande Valley region will require greater coordination by the Electric Reliability Council of Texas if the 524 MW combined-cycle natural gas Fontera facility is not available, according to a new study by the grid operator. Fontera Generation Limited Partnership reported to ERCOT that all or part of the facility will be unavailable to the ERCOT system from January 1, 2015 - December 31, 2023. Instead, the power will go to Mexico.

ERCOT conducted an assessment of that impact on the susceptible Valley region, which faced rotating outages recently after the unexpected loss of generation facilities. The Lower Rio Grande Valley is located at the southernmost tip of South Texas and borders Mexico. As one of the fastest growing – and poorest – areas in the county, the Valley is vulnerable due to its limited electric generation and transmission infrastructure.

"The purpose of the study is to see will the absence of the Fontera facility cause violations at ERCOT" said Fred Huang, supervisor of the dynamic studies group in ERCOT's system planning department. Huang presented the study at Tuesday's Regional Planning Group meeting. The peak demand for power in the Valley is currently around 2,300 MW and is expected to grow to 2,600 MW by summer 2015 and more than 2,900 MW by 2020, according to ERCOT documents. The absence of the Fontera facilities does exacerbate the instability problem, according to the study. Additional system upgrades will likely be required to reliably serve Valley load after 2016, according to the study.

While the system maintains acceptable performance under steady conditions, transmission operators will need to maintain a high voltage profile in the Valley region during high demand periods, according to the study. "There's really not enough generation in the Valley," one group member said. "It looks like we're using transmission to solve that. ... Transmission may not be able to solve everything." The stability/supply issues could be mitigated if the Fontera Facility were available in ERCOT during high demand periods that coincide with the outage of either the 345 kV lines into the Valley or with the outage of either of the combined-cycle trains in the Valley, according to the study. "ERCOT and Fontera are working to determine what possible functionality will be," said Jeff Billo, ERCOT senior planning engineer. Source: Platts Gas Daily

## Data

- November 2014 Natural Gas Futures Contract (as of October 24), NYMEX at Henry Hub closed at \$3.623 per million British thermal units (MMBtu)
- November 2014 Light, Sweet Crude Oil Futures Contract WTI (as of October 24), closed at \$81.01 per U.S. oil barrel (Bbl.) or approximately \$13.97 per MMBtu

### Last week: Texas warmer than normal

For the week beginning 10/19/14 and ending 10/25/14, 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](http://www.cpc.ncep.noaa.gov)

COOLING DEGREE DAYS (CDD)				
City or Region	Total CDD for week ending 10/25/14	*Week CDD + / - from normal	Year-to-date total CDD	* YTD % +/- from normal
Amarillo	12	12	1530	14%
Austin	33	-4	2791	-3%
DFW	43	26	2920	15%
El Paso	20	13	2652	18%
Houston	36	2	2960	7%
SAT	70	32	3417	16%
Texas**	39	12	2671	4%
U.S.**	8	0	1265	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 3,393 Bcf

For the week ending 10/17/2014 working gas in storage increased from 3,299 Bcf to 3,393 Bcf. This represents an increase of 94 Bcf from the previous week. Stocks were 336 Bcf lower than last year at this time and 338 Bcf below the 5 year average of 3,731 Bcf.

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

U.S. WORKING GAS IN STORAGE				
Region	Week ending 10/17/14	Prior week	One-week change	Current Δ from 5-YR Average (%)
East	1,872	1,825	47	-7.1%
West	482	474	8	-6.9%
Producing	1,039	1,000	39	-13.4%
Lower 48 Total	3,393	3,299	94	-9.1%

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 four for the week and down 44 when compared to twelve months ago. The total rig count for the U.S. was up nine from last week and was up 189 when compared to twelve months ago. The total rig count includes both oil and natural gas rotary rigs.

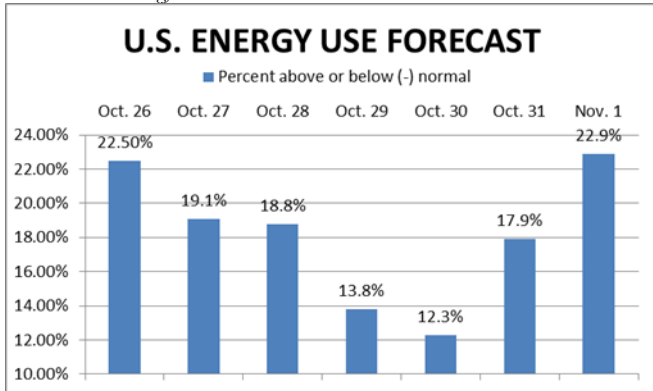
Source: Baker Hughes

BAKER HUGHES ROTARY RIG COUNT				
	As of 10/24/2014	+/- prior week	Year ago	+/- year ago
Texas	906	8	812	94
U.S. gas	332	4	376	-44
U.S. oil	1595	5	1357	238
U.S. total	1927	9	1738	189
Canada	426	9	404	22

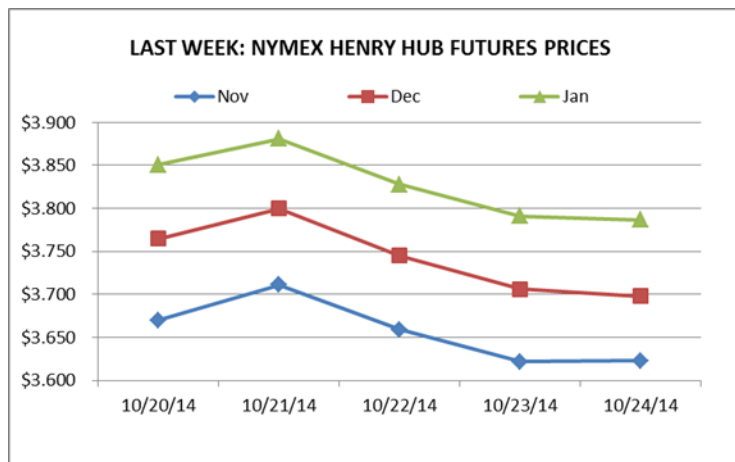
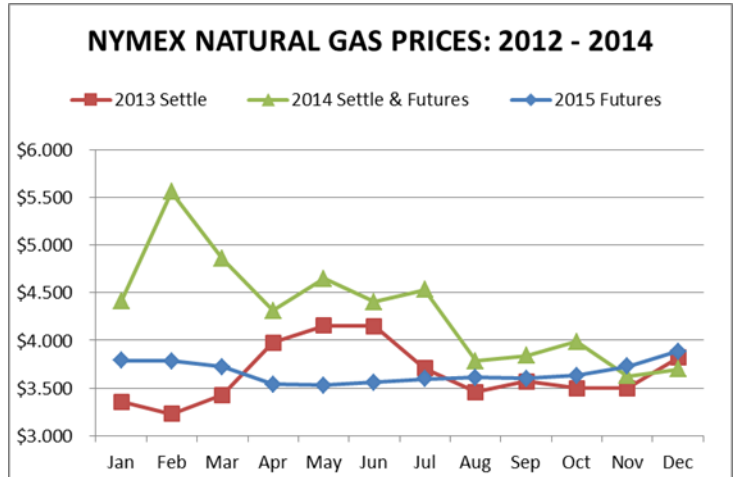
**This week: U.S. energy above normal**

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 10/25/2014**

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

NYMEX	\$3.623	-\$0.143	\$0.125	\$3.704
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