

September 3, 2013

Natural Gas Trends

Highlights

When the well runs dry, is fracking to blame? (Part II)

While water shortages are most keenly felt in arid parts of the state – which rely on underground aquifers to supply water for residential, agricultural and industrial needs – they are increasingly becoming a concern to other corners of the state as well, prompting some calls to strictly limit water use for fracking. According to the Texas Commission of Environmental Quality, about a quarter of the 4,656 public water systems in Texas are under either a voluntary or mandatory water-use watch.

Larry French, director of groundwater resources for the Texas Water Development Board, said that although the board has not been able to make a direct connection between water shortages and fracking, “that’s another stress on the aquifers.” He said a number of producers are seeking alternative sources of water, such as aquifers that hold non-potable brackish water, to avoid tapping into freshwater aquifers used by communities like Barnhart. While not yet widespread, the use of brackish water for drilling and fracking is “gaining recognition and popularity,” French said. “In some cases it might work well. In others it might be more challenging.”

French said the approximately 100 local groundwater conservation districts across the Lone Star State each have their own management plans and regulations. And while they cannot limit the volumes of water drillers can withdraw, oil and gas operators “are required to register their wells, provide information about where they’re obtaining their water and so forth,” he said.

Luke Metzger, founder and director of Environment Texas, said that isn’t enough given the threats posed by a combination of drought conditions and a booming fracking industry that shows little sign of slowing down. “Unlike water used for agriculture or for golf courses, where the water evaporates and comes back in the form of rain, with fracking the water is injected deep underground, where it’s removed from the hydrologic cycle. So we’re losing that water permanently,” Metzger said. “There are reports of ranchers and others who have wells that have seriously been diminished, at least in part because of the fracking. We’re facing a real water crisis in a lot of these areas.”

Metzger said state officials should institute measures that would require companies to stop using fresh water for fracking. He noted that a bill, which would have required operators to use recycled frack water was introduced in the last session of the state legislature, but “because of industry opposition, it didn’t even get out of the committee.”

Source: Platts Gas Daily

Data

- October 2013 Natural Gas Futures Contract (as of August 30), NYMEX at Henry Hub closed at \$3.581 per million British thermal units (MMBtu)
- October 2013 Light, Sweet Crude Oil Futures Contract WTI (as of August 30), closed at \$107.65 per U.S. oil barrel (Bbl.) or approximately \$18.56 per MMBtu

Last week: Texas and U.S. warmer than normal

For the week beginning 8/25/13 and ending 8/31/13, cooling degree days (CDD) were higher than normal (warmer) for the week as well as higher than normal year to date for both Texas and for the US. Source: www.cpc.ncep.noaa.gov

COOLING DEGREE DAYS (CDD)				
City or Region	Total CDD for week ending 8/31/13	*Week CDD +/- from normal	Year-to-date total CDD	* YTD % +/- from normal
Amarillo	114	48	1497	31%
Austin	134	3	2341	3%
DFW	160	37	2225	8%
El Paso	101	2	2300	23%
Houston	132	13	2393	9%
SAT	160	32	2597	12%
Texas**	129	14	2175	6%
U.S.**	80	25	1067	8%

* A minus (-) value is cooler than normal; a plus (+) value is warmer 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 3,130 Bcf

For the week ending 8/23/2013 working gas in storage increased from 3,063 Bcf to 3,130 Bcf. This represents an increase of 67 Bcf from the previous week. Stocks were 235 Bcf lower than last year at this time and 45 Bcf above the 5 year average of 3,085 Bcf.

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

U.S. WORKING GAS IN STORAGE				
Region	Week ending 8/23/13	Prior week	One-week change	Current Δ from 5-YR Average (%)
East	1,555	1,506	49	-6.4%
West	502	500	2	13.1%
Producing	1,073	1,057	16	9.7%
Lower 48 Total	3,130	3,063	67	1.5%

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

Last week: U.S. gas rig count decreasing

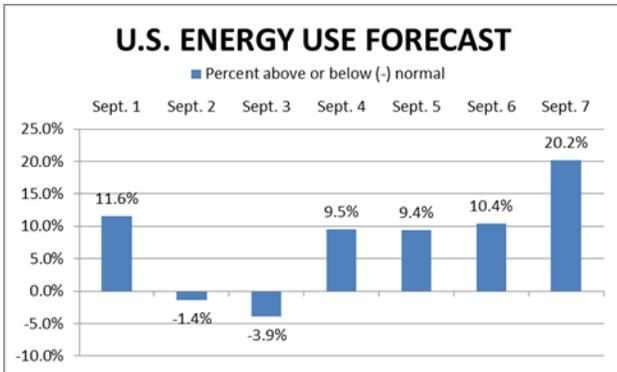
The gas rig count for the U.S. was down seven when compared to the prior week and down 93 when compared to twelve months ago. The total rig count for the U.S. showed no change the week and down 118 when compared to twelve months ago. The total rig count includes both oil and natural gas rotary rigs.

Source: Baker Hughes

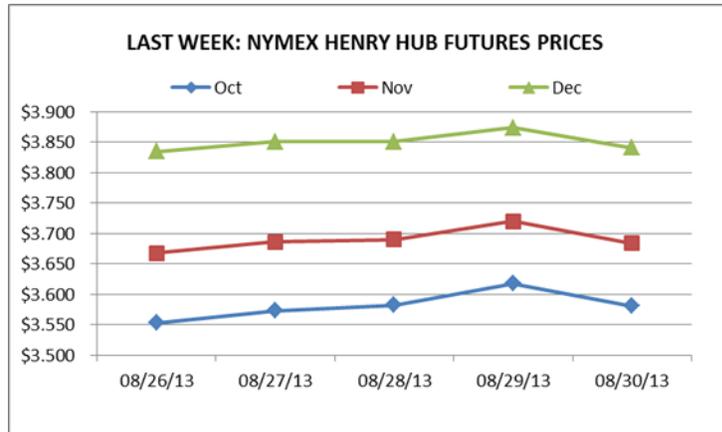
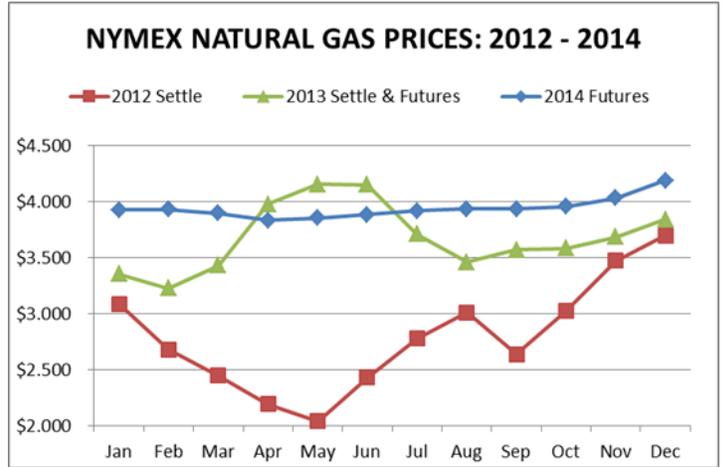
BAKER HUGHES ROTARY RIG COUNT				
	As of 8/30/2013	+/- prior week	Year ago	+/- year ago
Texas	846	-2	889	-43
U.S. gas	380	-7	473	-93
U.S. oil	1388	6	1419	-31
U.S. total	1776	0	1894	-118
Canada	399	16	316	83

This week: U.S. energy use above normal

U.S. energy use is predicted to be above normal for most of 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



2013 prices. Natural gas prices for 2013, shown below in green, are the NYMEX settlement prices for January-September and the futures prices for the remaining months of 2013.



NATURAL GAS PRICE SUMMARY AS OF 8/30/2013

	This Week	+/- Last Week	+/- Last Year	12-Month Strip Avg.
US October futures				
NYMEX	\$3.581	\$0.060	\$0.947	\$3.850