BARRY T. SMITHERMAN, Chairman
DAVID PORTER, Commissioner
CHRISTI CRADDICK, Commissioner

RAILROAD COMMISSION OF TEXAS
Gas Services Division
Market Oversight Section

September 9, 2013

Natural Gas Trends

Highlights

Coal continues to lose industrial users to gas

Two more US-based chemical companies that are converting their coal-fired boilers to natural gas said they were compelled by though new federal air-quality regulations and the attractiveness of low gas prices.

The conversions are part of an ongoing trend in which the chemical sector's use of natural gas for fuel and feedstock have been on a steady climb while its coal consumption has been in decline, according to data from the American Chemistry Council.

Eastman Chemical is spending $90 million to convert five coal-fired boilers at its Kingston, Tennessee, plant to gas by 2018, Him Amstutz, Eastman's global procurement manager, said last week.

The company wouldn't say how much gas the plant will be using, but Amstutz estimated that the conversion will increase its gas usage by "seven to eight times."

Plants to convert the boilers were "driven by Clean Air Act-related regulations," including the Boiler Maximum Achievable Control Technology rule, the Best Available Retrofit Technology rule under the Regional Haze program, and the recently promulgated Sulfur Dioxide National Ambient Air Quality Standards, Amstutz said.

The company is not divorcing itself entirely from coal. Amstutz said the plant will use coal for the remaining 50% of its steam and electricity-generating capacity and as a raw material for its coal-gasification process from which it manufactures chemicals.

Meanwhile, Celanese Corporation said it will spend $150 million to remove seven coal-fired boilers and replace them with six fueled by gas at its Giles County, Virginia plant. Spokesmen for the cellulose acetate company declined to provide specifics about how much gas the plant will consume.

Company officials did tell local news outlets that Celanese's coal-fired boilers couldn't comply with new federal regulations so the firm decided to rely instead on gas, which is cleaner and is subject to less stringent regulations.

Jennifer Scott, a spokeswoman for the ACC, said Eastman and Celanese "are the big companies that still use coal" in the chemical sector, as most have already switched or never used much coal.

The chemical industry burns 6.7 million tons of coal/year - "a very small number" when compared to the 1.2 billion tons of coal mined in the US, Scott said.

ACC statistics show that as a percentage of the chemical industry's energy consumption, coal accounted for 3% and gas for 37% in 2012.

The trade group also said 1% of the industry's feedstock used in 2012 came from coal, while 16% came from gas and 57% from natural gas liquids.

Over a broader time frame, the chemical industry's consumption of coal and coke in 2005 totaled 237 trillion Btu and dropped 42% to 147 trillion Btu by 2012, the ACC said. Gas use by the sector increased about 15% from 1,479 TBtu in 2005 to 1,667 TBtu in 2012.

In its 2013 G*uide to Business of* Chemistry, the ACC said petroleum and natural gas account for 99% of the hydrocarbon feedstocks used by the industry. "Coal represents a minor share, but prior to the 1930s was the dominant source."

Source: Platts Gas Daily

Data

- October 2013 Natural Gas Futures Contract (as of September 6), NYMEX at Henry Hub closed at $3.530 per million British thermal units (MMBtu)
- October 2013 Light, Sweet Crude Oil Futures Contract WTI (as of September 6), closed at $110.53 per U.S. oil barrel (Bbl.) or approximately $19.06 per MMBtu

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

For the week beginning 9/1/13 and ending 9/7/13, 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 9/7/13	*Week CDD + / - from normal	Year-to-date total CDD	* YTD % +/- from normal
Amarillo	108	52	1605	34%
Austin	146	24	2487	4%
DFW	163	52	2388	10%
El Paso	130	40	2430	24%
Houston	147	34	2540	10%
SAT	167	46	2764	14%
Texas**	137	30	2312	7%
U.S.**	66	18	1133	9%

-999 = Normal Less Than 100 or Ratio Incalculable

* 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.

Last week: U.S. natural gas storage at 3,188 Bcf

For the week ending 8/30/2013 working gas in storage increased from 3,130 Bcf to 3,188 Bcf. This represents an increase of 58 Bcf from the previous week. Stocks were 210 Bcf lower than last year at this time and 43 Bcf above the 5 year average of 3,145 Bcf.

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

U.S. WORKING GAS IN STORAGE

Region	Week ending 8/30/13	Prior week	One-week change	Current Δ from 5-YR Average (%)
East	1,598	1,555	43	-6.7%
West	505	502	3	13.0%
Producing	1,085	1,073	12	10.2%
Lower 48 Total	3,188	3,130	58	1.4%

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

Last week: U.S. gas rig count up for the week

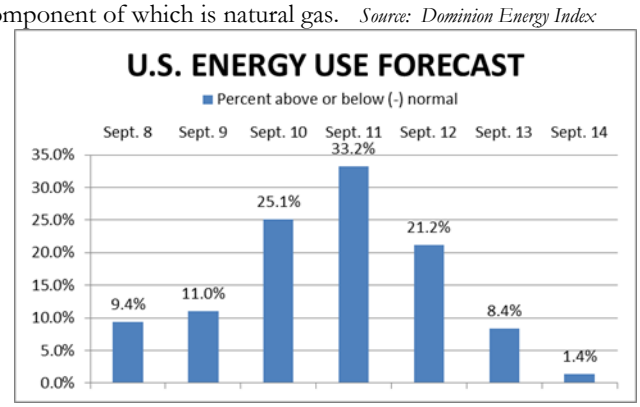
The gas rig count for the U.S. was up 14 when compared to the prior week but down 58 when compared to twelve months ago. The total rig count for the U.S. was down nine for the week and down 97 when compared to twelve months ago. The total rig count includes both oil and natural gas rotary rigs.

Source: Baker Hughes

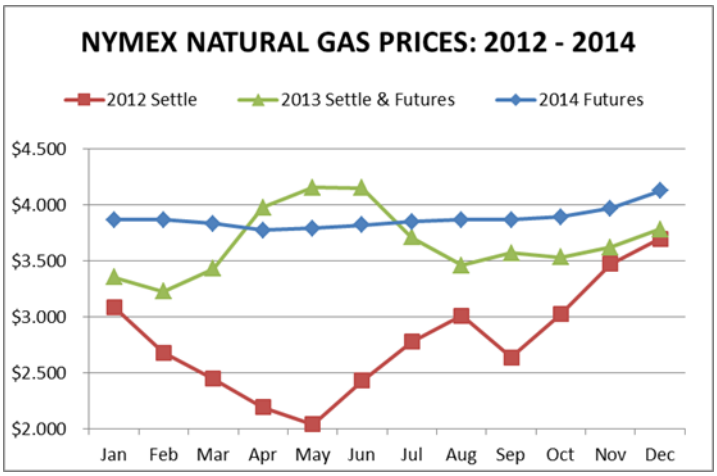
BAKER HUGHES ROTARY RIG COUNT				
	As of 9/6/2013	+/- prior week	Year ago	+/- year ago
Texas	838	-8	869	-31
U.S. gas	394	14	452	-58
U.S. oil	1365	-23	1409	-44
U.S. total	1767	-9	1864	-97
Canada	389	-10	345	44

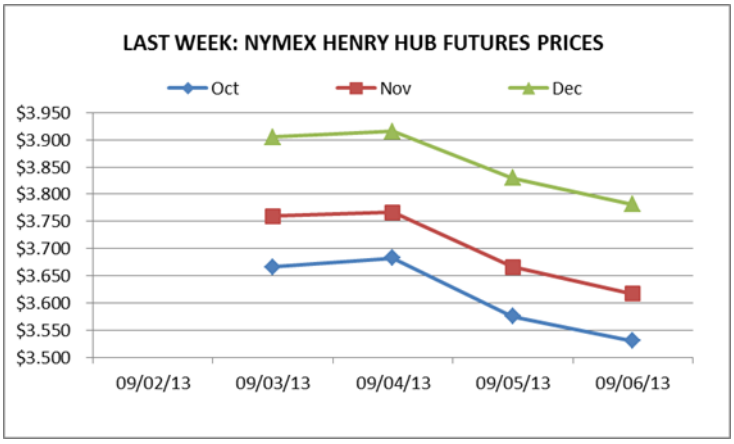
This week: U.S. energy use above normal

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*



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.





*No data for September 2, 2013 due to Labor Day.

NATURAL GAS PRICE SUMMARY AS OF 9/6/2013

	This Week	+/- Last Week	+/- Last Year	12-Month Strip Avg.
US October futures				
NYMEX	$3.530	-$0.051	$0.896	$3.788