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

RAILROAD COMMISSION OF TEXAS
Gas Services Division
Market Oversight Section

March 31, 2014

Natural Gas Trends

Highlights

Colorado fracking ban would cost 68,000 jobs in first five years

A statewide ban on hydraulic fracturing in Colorado would result in 68,000 fewer jobs and an average $8 billion loss in the state's gross domestic product in the first five years after enactment, a University of Colorado researcher said Thursday. Brian Lewandowski, research associate at the University of Colorado Boulder, also said a statewide fracking ban would result in 93,000 fewer jobs, $12 billion in lost GDP and an annual reduction of $985 million in tax revenue for local and state governments over the next 25 years. Lewandowski, co-author of the study released Wednesday by the Business Research Division of the Leeds School of Business at the university, said the research was launched late last year in response to ballot initiatives in several eastern Colorado cities calling for moratoria or outright bans on fracking.

Although Colorado is among the leading oil- and gas-producing states, industry advocates fear that status could be jeopardized by calls by community and environmental groups to restrict fracking. Last year, the state produced an average of 4.375 Bcf/d of gas, according to Colorado Oil and Gas Conservation Commission data. The study also finds that a statewide fracking ban would cost local and state governments $567 million per year in lost annual tax revenues for each of the first five years, and $985 million annually on average through 2040. "We modeled a statewide fracking ban that reduces new production by 95%, but that doesn't mean that oil and gas activity would turn off overnight. We would have all this legacy production in Colorado, because you already have all these wells that have been drilled and are producing," said Lewandowski.

But Lewandowski said an outright ban on fracking across the state seems less likely now than when the research project started last fall. He said continued research is needed to explore the potential results of several new scenarios. "After the election, we saw four cities pass fracking moratoriums in Colorado that essentially stopped fracking for a period of about five years. Prior to that, we saw a city pass a fracking ban, in which they effectively stopping fracking altogether," he said. "It was intuitive that the next big push would be a statewide ballot initiative related to fracking. We thought it might be a statewide fracking ban," Lewandowski said.

However, instead of calling for a statewide ban, community advocates are trying to put on the ballot a statewide referendum that would allow local municipalities to ban the drilling practice within their borders. In addition, there is also a movement to increase setback rules for oil and gas activities from the current 500 feet to distances ranging between 1,250 feet and a half-mile (2,640 feet). Lewandowski said the passage of local control referendum or the imposition of more stringent setback rules each would have an impact on oil and gas production and therefore job growth and GDP, but the impacts would not be as severe as would be those of an outright fracking ban.

The local control measure, if it passes, would likely have its greatest impact on cities and towns in the Denver metropolitan area, rather than the western half of the state, where the bulk of oil and gas production is centered. "But the increased setback rules are a little bit different. If you passed a rule to increase the setback to a half-mile that would constrict new oil and gas activity to almost a statewide fracking ban," Lewandowski commented. "The likely scenario might be a setback rule that restricts production by 50%, so that's what we want to model," he said.

"This groundbreaking study confirms that a ban on fracking would send shockwaves through our economy. The loss of jobs and the severe decline in economic output would be staggering. Every family in Colorado would be affected," Colorado Oil and Gas Association spokesman Doug Flanders said in a statement.

Source: Platts Gas Daily

Data

- May 2014 Natural Gas Futures Contract (as of March 28), NYMEX at Henry Hub closed at $4.485 per million British thermal units (MMBtu)
- May 2014 Light, Sweet Crude Oil Futures Contract WTI (as of March 28), closed at $101.67 per U.S. oil barrel (Bbl.) or approximately $17.53 per MMBtu

Last week: Texas cooler than normal

For the week beginning 3/23/14 and ending 3/29/14, heating degree days (HDD) were higher than normal (cooler) for the week and for the year to date for most Texas cities shown and for the US. Source: www.cpc.ncep.noaa.gov

HEATING DEGREE DAYS (HDD)

City or Region	Total HDD for week ending 3/29/14	*Week HDD + / - from normal	Year-to-date total HDD	* YTD % +/- from normal
Amarillo	110	6	3906	0%
Austin	41	16	2085	31%
DFW	54	15	2488	9%
El Paso	26	-21	1939	-20%
Houston	25	1	1686	15%
SAT	26	4	1510	-1%
Texas**	46	9	2190	15%
U.S.**	152	37	4176	6%

* 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 896 Bcf

For the week ending 3/21/2014 working gas in storage decreased from 953 Bcf to 896 Bcf. This represents a decrease of 57 Bcf from the previous week. Stocks were 899 Bcf lower than last year at this time and 926 Bcf below the 5 year average of 1,822 Bcf.

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

U.S. WORKING GAS IN STORAGE

Region	Week ending 3/21/14	Prior week	One-week change	Current Δ from 5-YR Average (%)
East	356	395	-39	-54.1%
West	164	167	-3	-44.0%
Producing	376	391	-15	-50.1%
Lower 48 Total	896	953	-57	-50.8%

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 eight compared to the prior week and down 71 when compared to twelve months ago. The total rig count for the U.S. was up six for the week and up 61 when compared to twelve months ago. The total rig count includes both oil and natural gas rotary rigs.

Source: Baker Hughes

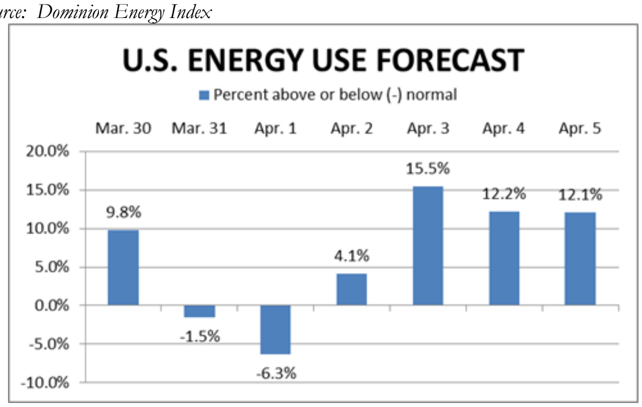
BAKER HUGHES ROTARY RIG COUNT

	As of 3/28/2014	+/- prior week	Year ago	+/- year ago
Texas	866	8	823	43
U.S. gas	318	-8	389	-71
U.S. oil	1487	14	1354	133
U.S. total	1809	6	1748	61
Canada	298	-91	246	52

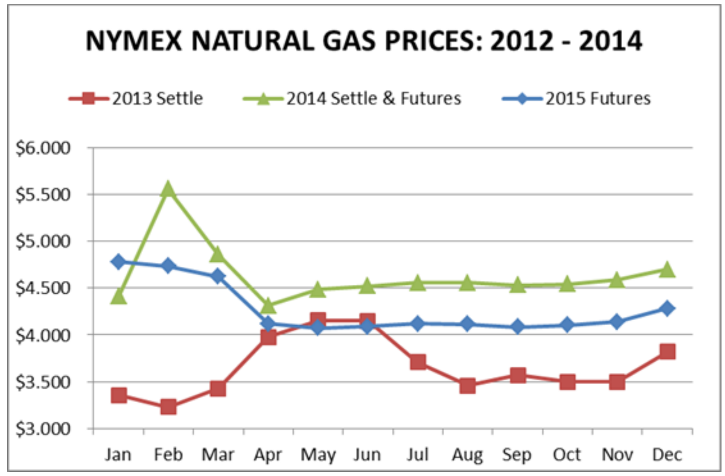
This week: U.S. energy use varies

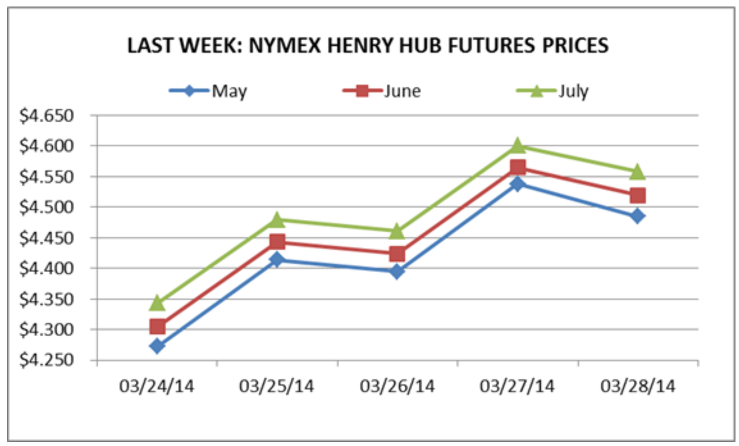
U.S. energy use is predicted to vary this week, according to the Dominion Energy Index, as shown below. Dominion forecasts total U.S. residential energy usage, a component of which is natural gas.

Source: Dominion Energy Index



2014 prices. Natural gas prices for 2014, 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 3/28/2014

	This Week	+/- Last Week	+/- Last Year	12-Month Strip Avg.
US May futures				
NYMEX	$4.485	$0.172	$0.509	$4.577