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RAILROAD COMMISSION OF TEXAS
Gas Services Division
Market Oversight Section

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Natural Gas Trends

Highlights

N.D. rolls out first set of flaring-reduction rules

North Dakota has begun rolling out the first in a series of policy changes designed to reduce the extraordinary level of gas flaring in the Bakken Shale oil field. Beginning Sunday, exploration-and-production companies will be required to submit along with their application for permit to drill, a document describing to the North Dakota Industrial Commission's Department of Mineral Resources how they plan to capture gas produced from their drilling operations. The requirement is part of a package of reforms adopted by the state's Industrial Commission in March to curb the high level of flaring, which results in about one-third of the state's approximately 1 Bcf/d of gas production in going up in smoke – potentially costing the industry and government millions of dollars a day.

The next phase of the regulatory changes is set for July 1, when the Industrial Commission is expected to adopt an order strengthening the commission's power to order production curtailments for operators that fail to comply with their gas capture plans or fail to meet their flaring-reduction goals, Allison Ritter, a spokeswoman with the DMR, said Friday. "We already have the ability to apply production curtailments. However, the system in place currently is not effective, obviously. So we're revising those production curtailments to make it more effective for the Bakken and Three Forks plays," she said. Under DMR's current policy, production curtailments are written into individual field orders for each of the more than 300 Bakken and Three Forks fields. "While orders may be constantly revised, the methodology around the typical field order curtailment is from the '80s," Ritter said.

Under the gas-capture plan rule, gas flaring would be limited to one year after first production. After that, the well must either be capped, connected to a gas gathering line, equipped with an electrical generator that consumes at least 75% of the gas, or equipped with a compression or liquefaction system that consumes at least 75% of the gas. At least three companies – ConocoPhillips, Whiting and EOG Resources – had already begun supplying gas capture plans with their APDs in advance of Sunday's deadline, Ritter said. "EOG is committed to the overarching goal of reducing flaring in the Bakken," a spokeswoman said in an email.

The Industrial Commission's regulations are based on the recommendations an industry flaring task force, led by the North Dakota Petroleum Council, unveiled in February. The task force said its proposals, if implemented, would reduce gas flaring in the state by 95% in six years.

Gas flaring typically occurs in areas where the gas produced in association with oil does not have a good way to get to market. According to the monthly DMR Director Lynn Helms monthly report, delivered May 13, the most recent price of natural gas delivered to Northern Border Pipeline at Watford City was $4.29/Mcf, which results the current oil to gas price ratio of 20:1. Helms reported that gas production in the state in March, the most recent month for which data was available, was 1.09 Bcf/d, with about 33% of that being flared.

Tessa Sandstrom, a spokeswoman for the North Dakota Petroleum Council, said the gas-capture requirement would encourage producers to begin thinking of ways to stop flaring at the onset of an oil drilling project, rather than as an afterthought. "The importance of it is that is puts the planning phase on day one instead of day 365," she said. The new regulation also "opens up the line of communication between the operator and the midstream companies who are the ones that would have to get that gas."

In remarks at the recent Williston Basin Petroleum Conference, North Dakota Governor Jack Dalrymple said the state's gas flaring reduction effort reflects a decision to get tough on the E&P industry. "We have, as a general law, an allowance for flaring from the wellhead for one year after first production of a well. We've made it easy until this time for companies approaching their one-year anniversary," he said. "Those days are over – we're not going to do that anymore." Source: Platts Gas Daily

Data

- July 2014 Natural Gas Futures Contract (as of May 30), NYMEX at Henry Hub closed at $4.542 per million British thermal units (MMBtu)
- July 2014 Light, Sweet Crude Oil Futures Contract WTI (as of May 30), closed at $102.71 per U.S. oil barrel (Bbl.) or approximately $17.71 per MMBtu

Last week: Texas cooler than normal

For the week beginning 5/25/14 and ending 5/31/14, cooling degree days (CDD) were higher than normal (cooler) for the week and for the year to date for most Texas cities shown.

Source: www.cpc.ncep.noaa.gov

COOLING DEGREE DAYS (CDD)

City or Region	Total CDD for week ending 5/31/14	*Week CDD + / - from normal	Year-to-date total CDD	* YTD % +/- from normal
Amarillo	40	4	199	81%
Austin	72	-19	456	-18%
DFW	86	5	476	33%
El Paso	109	25	426	24%
Houston	80	-11	541	-6%
SAT	92	-3	705	18%
Texas**	77	-6	462	-6%
U.S.**	41	9	177	9%

* 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 1,380 Bcf

For the week ending 5/23/2014 working gas in storage increased from 1,266 Bcf to 1,380 Bcf. This represents an increase of 114 Bcf from the previous week. Stocks were 748 Bcf lower than last year at this time and 922 Bcf below the 5 year average of 2,302 Bcf.

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

U.S. WORKING GAS IN STORAGE

Region	Week ending 5/23/14	Prior week	One-week change	Current Δ from 5-YR Average (%)
East	586	522	64	-42.8%
West	250	231	19	-30.6%
Producing	544	513	31	-40.7%
Lower 48 Total	1,380	1,266	114	-40.1%

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 one for the week and was down 28 when compared to twelve months ago. The total rig count for the U.S. was down nine from last week and up 95 when compared to twelve months ago. The total rig count includes both oil and natural gas rotary rigs.

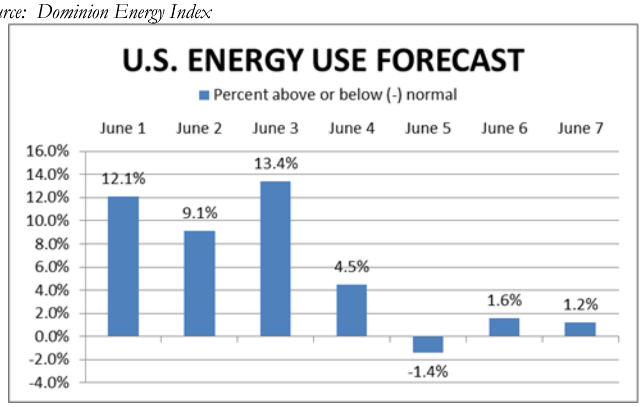
Source: Baker Hughes

BAKER HUGHES ROTARY RIG COUNT				
	As of 5/30/2014	+/- prior week	Year ago	+/- year ago
Texas	894	5	843	51
U.S. gas	326	1	354	-28
U.S. oil	1536	8	1410	126
U.S. total	1866	9	1771	95
Canada	198	44	145	53

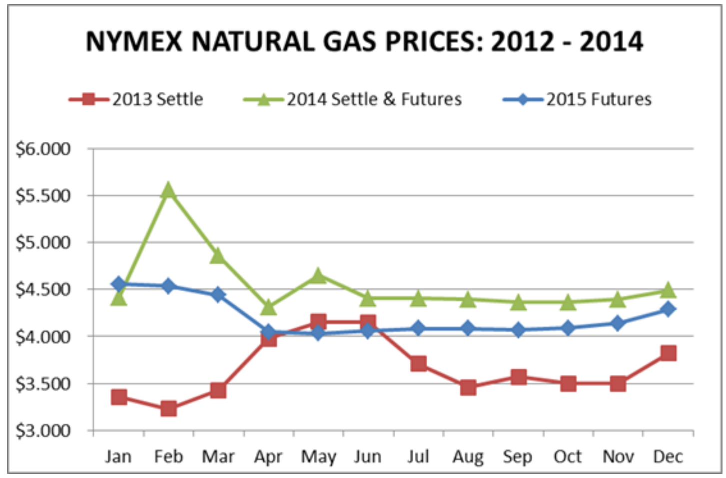
This week: U.S. energy above normal

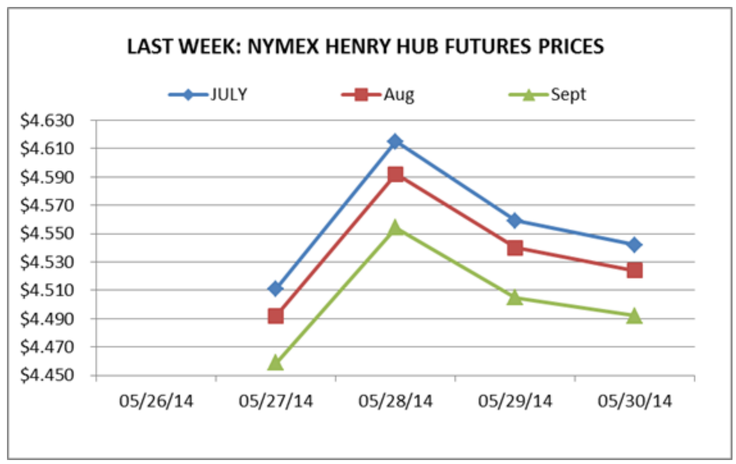
U.S. energy use is predicted to be above normal for the majority of this week, according to the Dominion Energy Index, as shown below. Dominion forecasts total U.S. residential energy usage, a component of which is natural gas.

Source: Dominion Energy Index



2014 prices. Natural gas prices for 2014, shown below in green, are the NYMEX settlement prices for Jan.-June and futures prices for the remainder of the year.





*Data for May 26, 2014 is unavailable due to Memorial Day.

NATURAL GAS PRICE SUMMARY AS OF 5/30/2014

	This Week	+/- Last Week	+/- Last Year	12-Month Strip Avg.
US July futures				
NYMEX	$4.542	$0.129	$0.835	$4.515