

June 23, 2014

Natural Gas Trends

Highlights

California fracking regulations focus on seismic potential

California's plans to regulate hydraulic fracturing and other well-stimulation methods call for operators to track seismic activity before and after jobs, monitor potential groundwater contamination, and disclose large amounts of data about the chemicals used, an official with the California Department of Conservation said Tuesday. The proposed regulations, which are set to go into effect next year, would apply to onshore oil and gas drilling operations as well as offshore drilling in state waters. Jason Marshall, the department's chief deputy director, said in a conference call with reporters. DOC last week started a 45-day public comment period on the latest version of the rules. Among the changes are those that address the need for operators to pay more attention to the possible underground impacts of their operations in earthquake-prone California.

"We've included something additional in regard to seismic monitoring. The prior regulations had operators reporting to us after the fact. We're going to be requiring operators under these regulations to be monitoring in real time," Marshall said. Oil and gas companies would be required to report to the California Integrated Seismic Network any nearby earthquakes of magnitude 2 or greater that occur during any well-stimulation activity, which could include fracking, acid-matrix stimulation and acid fracturing.

Well stimulation is not as commonly practiced in California as it is in other oil- and gas-producing states and most is geared toward oil. Don Drysdale, a spokesman for the DOC, said most California production is geared to oil. Drysdale said that in the first quarter of 2014, the state produced about 554,000 barrels/d of oil, and 604,000 Mcf/d of gas.

DOC is conducting the rulemaking in response to Senate Bill 4, which the state legislature passed last year.

Marshall said one of the largest changes in that bill strengthened the requirement for operators to develop plans to monitor groundwater when there is a protected source of water in the area their well is going to pass through. Operators currently must monitor groundwater as proscribed by emergency regulations the department issued in January. "But there're also provisions in Senate Bill 4 that will have the State Water Resources Control Board convene an expert panel to identify what are the criteria that need to be in groundwater protection plans statewide," he said. Those criteria, which will be developed by July 1 of next year, will then become the baseline that all future groundwater monitoring plans will be required to conform to, Marshall said.

The proposed rules also contain strong provisions requiring the disclosure of chemicals in fracking fluid, while providing a provision that allows operators to protect data considered to be trade secrets, Marshall said. "Operators can assert trade secrecy, but under some limited conditions, and in all cases need to provide the full information, with no trade secrecy withheld, to our department. We can share that information with other agencies as long as they understand the limitations on its release," he said. Unlike some other energy-producing states, California opted not to require operators to use the independent online database FracFocus as the medium for disclosing chemical data. "The legislature had some concerns about FracFocus' searchability, the nature of the data and how thoroughly the data is going to be presented, so Senate Bill 4 instructed us to develop a new online disclosure tool," Marshall said. In addition, FracFocus does not list information about acid-matrix stimulation, a well-stimulation technique not commonly used in states outside California.

He added that the department currently is developing that system, a process expected to take "at least another 12 months, probably more like 16 to 18 months." In the meantime, California regulators are relying on a hybrid system of FracFocus reporting combined with data provided directly by operators, which the department posts on its web site. Marshall said the proposed California well-stimulation regulations go a step beyond similar rules enacted in other oil- and gas-producing states. "California has taken the step of saying we understand the premise of trusting the integrity of the well and trusting the construction standards, but let's verify; let's make sure that we have groundwater monitoring in place," he said.

Source: Platts Gas Daily

Data

- July 2014 Natural Gas Futures Contract (as of June 20), NYMEX at Henry Hub closed at \$4.531 per million British thermal units (MMBtu)
- July 2014 Light, Sweet Crude Oil Futures Contract WTI (as of June 20), closed at \$107.26 per U.S. oil barrel (Bbl.) or approximately \$18.49 per MMBtu

Last week: Texas warmer than normal

For the week beginning 6/15/14 and ending 6/21/14, 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

COOLING DEGREE DAYS (CDD)				
City or Region	Total CDD for week ending 6/21/14	*Week CDD + / - from normal	Year-to-date total CDD	* YTD % +/- from normal
Amarillo	81	9	412	42%
Austin	131	11	804	-9%
DFW	144	28	854	27%
El Paso	147	25	897	32%
Houston	134	17	913	1%
SAT	140	18	1087	16%
Texas**	123	13	797	0%
U.S.**	62	10	328	10%

* 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 1,719 Bcf

For the week ending 6/13/2014 working gas in storage increased from 1,606 Bcf to 1,719 Bcf. This represents an increase of 113 Bcf from the previous week. Stocks were 706 Bcf lower than last year at this time and 851 Bcf below the 5 year average of 2,570 Bcf.

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

U.S. WORKING GAS IN STORAGE				
Region	Week ending 6/13/14	Prior week	One-week change	Current Δ from 5-YR Average (%)
East	790	720	70	-33.4%
West	298	282	16	-25.9%
Producing	631	604	27	-35.7%
Lower 48 Total	1,719	1,606	113	-33.1%

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 but was down 38 when compared to twelve months ago. The total rig count for the U.S. was up four from last week and up 99 when compared to twelve months ago. The total rig count includes both oil and natural gas rotary rigs.

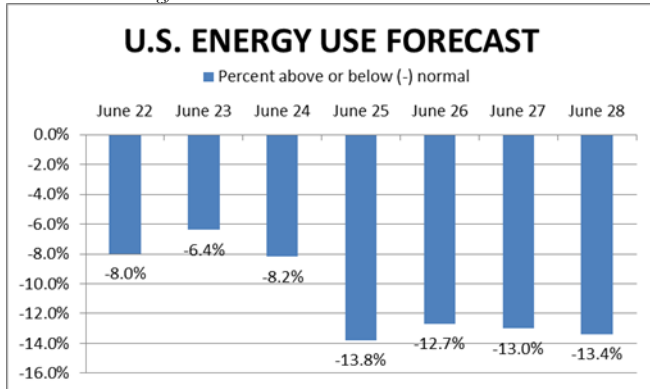
Source: Baker Hughes

BAKER HUGHES ROTARY RIG COUNT				
	As of 6/20/2014	+/- prior week	Year ago	+/- year ago
Texas	889	1	843	46
U.S. gas	311	1	349	-38
U.S. oil	1545	3	1405	140
U.S. total	1858	4	1759	99
Canada	265	21	197	68

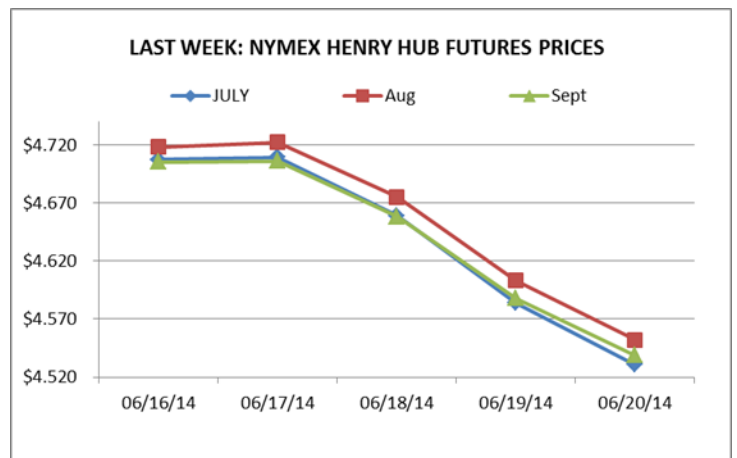
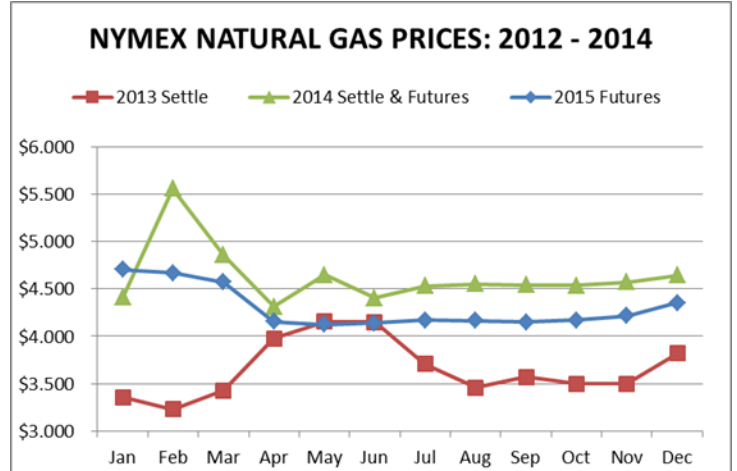
This week: U.S. energy use below normal

U.S. energy use is predicted to be below 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.-June and futures prices for the remainder of the year.



NATURAL GAS PRICE SUMMARY AS OF 6/20/2014

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

NYMEX	\$4.531	-\$0.208	\$0.824	\$4.544
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