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RAILROAD COMMISSION OF TEXAS
Oversight and Safety Division
Market Oversight Section

November 9, 2015

Natural Gas Trends

Highlights

Pipe contractors struggle to meet demand

Pointing to the large stack of major gas pipeline projects on the docket for the next few years, a leading pipeline construction executive on Friday expressed concern about the sector's ability to meet the demand and stay on schedule in the face of new challenges, including potential delays forced by environmental and landowner opposition groups. "There's a tremendous challenge coming up when we look at all the work that's out there," Rob Riess, president and CEO of Sheehan Pipe Line Construction, told the INGAA Foundation's annual meeting in Key Biscayne, Florida. Riess also is incoming chairman of the foundation, which under the auspices of the Interstate Natural Gas Association of America focuses on pipeline construction and related issues. Riess reviewed the available capacity of the pipeline construction sector to deal with the roughly 3,465 miles of pipeline, designed to move up to 4.46 Bcf/d, on the drawing board for the next few years.

For 2016 alone, Riess sees the need for full crews, each with upwards of 400-500 workers, to man 119 individual pipeline construction spreads to build projects that are ready to go. For 2017 and 2018, Riess put the number of spreads at 100 and 85, respectively, though he conceded that those estimates were somewhat speculative because many projects in that time frame were in early stages of development. The list of pipeline developers with projects ready to go next year reads like a who's-who in pipeline infrastructure. Companies and 2016 required spreads cited by Riess included: Energy Transfer Partners (37), Spectra (9), Enbridge (3), Colombia Pipeline Group (1), Williams Companies (12), Kinder Morgan (6), Sempra (2), Enterprise (4), Marathon (1), Enable (2), National Fuel Gas (5) and Oneok (2).

"Are we prepared?" he asked the group, going on to suggest that the answer was: barely. "I think the resources are there, but I'd be lying if I didn't tell you some are scared to death they won't be able to meet every challenge," said Riess. Some major pipeline developer "at some point is going to be awfully disappointed," he said. They'll have a project that "needs to be built and a timeline," but the engineering and construction resources "won't be available." Contractors "in this room," he told the large audience, "are fully subscribed for 2016.

Uncertainty of schedules a wildcard

Turning to the state and federal permitting scene, Riess allowed that certain elements of those processes "bother me the most" in looking out at the horizon. "You can't predict" permitting delays caused by political, environmental and landowner pushback and other pressures, he noted. "If somebody's permit is delayed three to four months, that throws the whole thing into a quandary," said Riess, noting that contractors like to have all their crews work spreads "back-to-back-to-back."

As for opposition groups, "I have no idea how to value it, how to think about it, how it will work out. It used to be that groups would wait until the pipeline gang got started, then come out and raise hell," he related. "Now, they start at the beginning. It's hard to predict how that will come out." Riess pronounced himself hopeful, but somewhat wary, about the construction sector's ability to keep up with demand. "I truly feel the resources are there. The big challenge," he continued, will come "if those permits slip at all. Everybody is going to feel that pain. Where you think you were going to finish and go to the next job, you may not get there," he said. "that's going to be the real wild card as I see it."

Source: Platts Gas Daily

Data

- December 2015 Natural Gas Futures Contract (as of November 6), NYMEX at Henry Hub closed at $2.371 per million British thermal units (MMBtu)
- December 2015 Light, Sweet Crude Oil Futures Contract WTI (as of November 6), closed at $44.29 per U.S. oil barrel (Bbl.) or approximately $7.64 per MMBtu

Last week: Texas warmer than normal last week

For the week beginning 11/1/15 and ending 11/7/15, heating degree days (HDDs) were lower than normal (warmer) on average for the week and for the year to date for most Texas cities shown.

Source: www.cpc.ncep.noaa.gov

HEATING DEGREE DAYS (HDD)

City or Region	Total HDD for week ending 11/7/15	*Week HDD + / - from normal	Year-to-date total HDD	* YTD % +/- from normal
Amarillo	65	-42	213	-47%
Austin	4	-25	7	-999%
DFW	13	-34	18	-82%
El Paso	36	-26	72	-55%
Houston	0	-28	1	-999%
SAT	3	-25	3	-999%
Texas**	15	-23	44	-58%
U.S.**	56	-45	338	-30%

* 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 3,929 Bcf

For the week ending 10/30/2015 working gas in storage increased from 3,877 Bcf to 3,929 Bcf. This represents an increase of 52 Bcf from the previous week. Stocks were 371 Bcf higher than last year at this time and 147 Bcf above the 5 year average of 3,782 Bcf.

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

U.S. WORKING GAS IN STORAGE

Region	Week ending 10/30/15	Prior week	One-week change	Current Δ from 5-YR Average (%)
East	2,026	1,994	32	-0.4%
West	535	531	4	2.1%
Producing	1,368	1,352	16	11.9%
Lower 48 Total	3,929	3,877	52	3.9%

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 four this week and was down 149 when compared to twelve months ago. The total rig count for the U.S. stayed was down twelve compared to last week and down 1154 when compared to twelve months ago. The total rig count includes both oil and natural gas rotary rigs.

Source: Baker Hughes

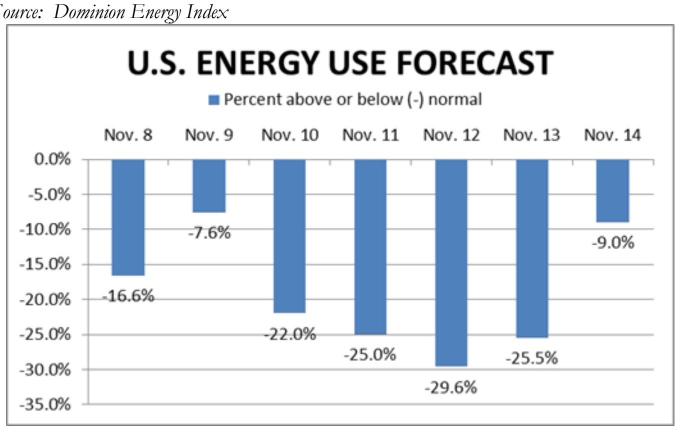
BAKER HUGHES ROTARY RIG COUNT

	As of 11/6/2015	+/- prior week	Year ago	+/- year ago
Texas	340	1	906	-566
U.S. gas	199	2	356	-157
U.S. oil	572	-6	1568	-996
U.S. total	771	-4	1925	-1154
Canada	185	-6	410	-225

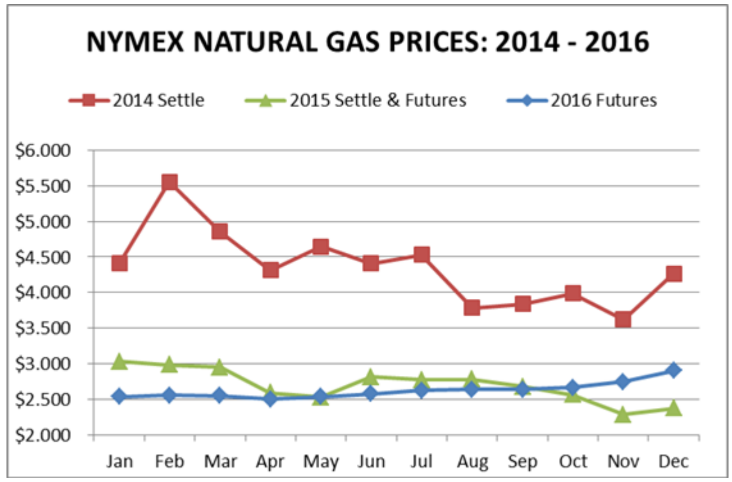
This week: U.S. energy below normal

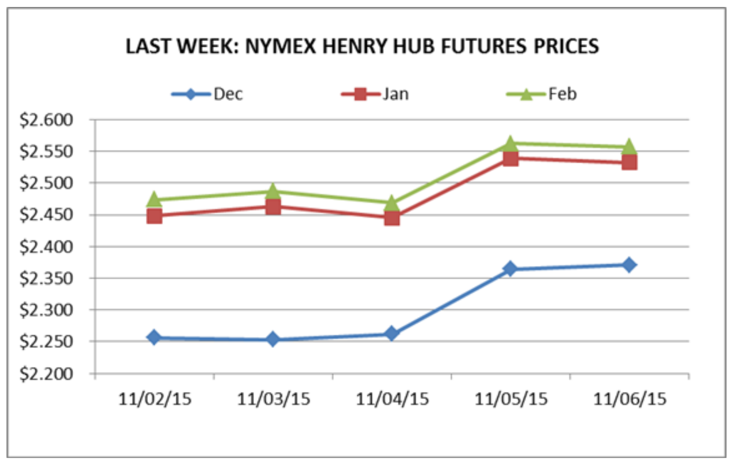
U.S. energy use is predicted to be below normal this week, according to the Dominion Energy Index, as shown below. Dominion forecasts total U.S. residential energy usage, a component of which is natural gas.

Source: Dominion Energy Index



2015 prices. Natural gas prices for 2015, shown below in green, are the NYMEX settlement prices for Jan.-Oct. and futures prices for the remainder of the year.





NATURAL GAS PRICE SUMMARY AS OF 11/6/2015

	This Week	+/- Last Week	+/- Last Year	12-Month Strip Avg.
US December futures				
NYMEX	$2.371	$0.050	-$1.911	$2.696