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RAILROAD COMMISSION OF TEXAS
Gas Services Division
Market Oversight Section

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Natural Gas Trends

Highlights

Forecasts of domestic NGV growth vary widely

Analysts tracking the use of natural gas as a transportation fuel agree that more people will soon be driving natural gas-powered cars and trucks in North America – but there's wide disagreement about how much growth is coming and how quickly. Analysts with Platts unit Bentek Energy projected in a recent report that use of natural gas for vehicle transportation will grow to 1.1 Bcf/d by 2018, a two- to three-fold increase from this year. "Some of our folks think our forecast is too aggressive," said Darrell Proctor, a senior analyst with Bentek. "There will no doubt be growth. The key is how quickly that growth will occur. Our analysis certainly shows the great potential for growth in transportation use. Passenger vehicles have more potential for demand … because of their sheer number," Proctor said. "Government statistics showed there were more than 254 million registered passenger vehicles in the United States as of 2009, and automakers have long said they will begin making more natural gas-powered vehicles once the fueling infrastructure is in place – and if it makes economic sense."

One sector where growth already is ramping up is trucking. "The fueling infrastructure is moving more quickly for the long-haul trucking industry, partly because that sector has more incentive to switch to natural gas because it's so much less expensive than diesel fuel," Proctor said. "The same is true for trash-hauling companies and other industries that have vehicles running on diesel."

Rich Kolodziej, president of the Natural Gas Vehicle Association of America, thinks Bentek's estimates are "too conservative." By 2018, he expects US vehicles to be consuming nearly 800 Bcf annually, or 2.2 Bcf/d. One reason Kolodziej is optimistic about overall NGV demand us growing interest by railroads to run on liquefied natural gas. "You could put the entire leadership of the US rail industry around a table – there are six big companies and two locomotive manufacturers. With eight people around the table, you have the entire industry," he said. "If they decide to do it, they could move very quickly."

Using data from the Energy Information Administration and applying its own analysis, Bentek showed the ultimate potential for the NGV sector is huge. If every current vehicle in a handful of sectors – passenger cars, long-haul trucks, buses, railroads and marine vessels – were converted to run on natural gas, demand would approach 60 Bcf, or more than 80% of current US gas consumption. While nobody sees that as a realistic scenario, Proctor stressed that if domestic gas supply remains robust and prices relatively low, NGVs are a key new demand source.

However, Proctor said some incentives would likely be necessary to accelerate the use of natural gas-powered cars. "I would suspect that to encourage widespread use of natural gas in passenger vehicles," he said. "Most folks want a return on their investment sooner rather than later. Tax breaks, both for manufacturers and consumers, are likely going to be needed." Estimates of future demand from the transportation sector "have varied widely; those in the industry have almost always been more aggressive with their forecasts when compared to outside analysts who have tended to be more conservative with their numbers," Proctor noted. "I don't think this is a case of 'If you build it, they will come'" with regard to making fueling stations more available to the general public.

"There are people who would buy a dual-fuel vehicle simply on what they perceive as the merit, but to really move the needle there has to be fairly quick return on the investment in that vehicle," Proctor said.

Source: Platts Gas Daily

Data

- January 2014 Natural Gas Futures Contract (as of November 27), NYMEX at Henry Hub closed at $3.895 per million British thermal units (MMBtu)
- January 2014 Light, Sweet Crude Oil Futures Contract WTI (as of November 29), closed at $92.72 per U.S. oil barrel (Bbl.) or approximately $15.99 per MMBtu

Last week: Texas cooler than normal

For the week beginning 11/24/13 and ending 11/30/13, heating degree days (HDD) were higher than normal (cooler) for the week and year to date for Texas but lower than normal (warmer) year to date for the US.

Source: www.cpc.ncep.noaa.gov

HEATING DEGREE DAYS (HDD)

City or Region	Total HDD for week ending 11/30/13	*Week HDD + / - from normal	Year-to-date total HDD	* YTD % +/- from normal
Amarillo	190	22	838	-6%
Austin	149	83	325	36%
DFW	162	64	401	10%
El Paso	157	41	381	-21%
Houston	136	76	248	9%
SAT	127	63	228	-2%
Texas**	153	72	388	20%
U.S.**	194	43	913	-1%

-999 = Normal Less Than 100 or Ratio Incalculable

* 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.

Last week: U.S. natural gas storage at 3,776 Bcf

For the week ending 11/22/2013 working gas in storage decreased from 3,798 Bcf to 3,776 Bcf. This represents a decrease of 22 Bcf from the previous week. Stocks were 100 Bcf lower than last year at this time and 17 Bcf above the 5 year average of 3,759 Bcf.

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

U.S. WORKING GAS IN STORAGE

Region	Week ending 11/22/13	Prior week	One-week change	Current Δ from 5-YR Average (%)
East	1,939	1,953	-14	-5.6%
West	546	522	24	6.4%
Producing	1,291	1,284	7	8.2%
Lower 48 Total	3,776	3,798	-22	0.5%

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 two compared to the prior week and down 57 when compared to twelve months ago. The total rig count for the U.S. was up two for the week and down 48 when compared to twelve months ago. The total rig count includes both oil and natural gas rotary rigs.

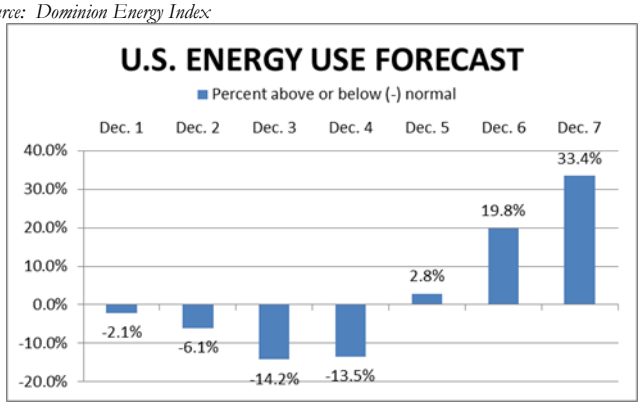
Source: Baker Hughes

BAKER HUGHES ROTARY RIG COUNT				
	As of 11/27/2013	+/- prior week	Year ago	+/- year ago
Texas	834	3	855	-21
U.S. gas	367	-2	424	-57
U.S. oil	1391	4	1386	5
U.S. total	1763	2	1811	-48
Canada	385	17	399	-14

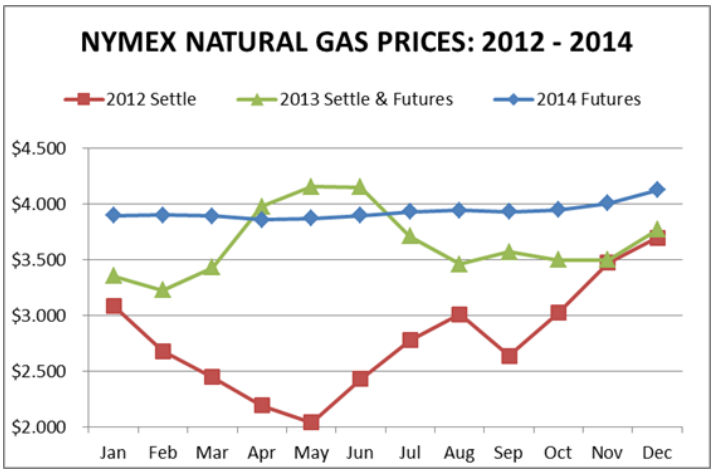
This week: U.S. energy use varies

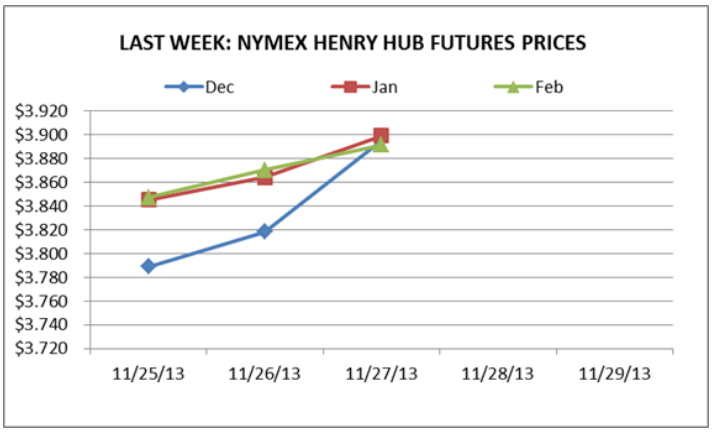
U.S. energy use is predicted to be below normal early in the week increasing towards the end of the week, according to the Dominion Energy Index, as shown below. Dominion forecasts total U.S. residential energy usage, a component of which is natural gas.

Source: Dominion Energy Index



2013 prices. Natural gas prices for 2013, shown below in green, are the NYMEX settlement prices for January-December.





*Data is unavailable for November 28 & 29 due to the Thanksgiving Holiday.

NATURAL GAS PRICE SUMMARY AS OF 11/27/2013

	This Week	+/- Last Week	+/- Last Year	12-Month Strip Avg.
US January futures				
NYMEX	$3.895	$0.127	$0.541	$3.932