**Market Oversight Section** 

# September 8, 2014

# Natural Gas Trends

## **Highlights**

#### US gas exports to Mexico jump 30% this year

US gas exports to Mexico grew 30% year-over-year in June, hitting 2.3 Bcf/d, despite a mild decrease in gas burned for power. Most of the 530,000 Mcf/d gain was pegged to Texas, where gas crossing the border increased to 1.8 Bcf/d, a 400,000 Mcf/d increase over the prior year.

The data suggests that the additional US gas was used to offset PEMEX production declines and growing demand, analysts said, noting that it also alleviated the need for LNG imports.

PEMEX and Comision Federal de Electricidad said power burn was down to 3.5 Bcf/d, a 200,000 Mcf/d drop from the year prior. The drop in power burn largely was driven by lower-than-normal temperatures, Bentek Energy said Friday. Total power burn fell primarily due to lower electrical use in the services and agricultural sectors, where generation fell by 43% and 17%, respectively, Bentek said. Industrial and residential demand grew by 2% and 1%, respectively, suggesting that there is considerable nascent power demand growth occurring in Mexican electricity markets. A review of PEMEX, CFE and Bentek data suggests that the excess gas was likely used to fill production shortfalls, meet growing PEMEX demand, and also stored at LNG import terminals, displacing LNG back onto the global market.

LNG imports were up, with nearly 1 Bcf/d brought in through Mexico's three import terminals, a 300,000 Mcf/d gain over the previous year, Bentek said. "The flood of gas coming in both as LNG and across the border from the US, matched with a drop in power burn, likely drove and LNG storage build," Bentek said. "Mexico has no gas storage besides regulation of line pack. However, it does have about 19 Bcf of LNG storage spread across the country's three LNG import terminals."

Bentek said it cannot now estimate LNG storage inventories in Mexico due to the lack of pipeline flow data, but it is likely the surge of US gas imports caused LNG inventories to build at Manzanillo and Altamira, displacing LNG imports onto the global market and slowing sendout.

The additional June imports (year-on-year) from the US also helped offset declines in Mexico dry gas production, which fell to 4.3 Bcf/d in June, a 110,000 Mcf/d drop from 2013 levels and a 1.6 Bcf/d decline from the five-year average. This year-on-year drop came primarily from the Burgos Basin in Northeastern Mexico, where dry gas production fell by 74,000 Mcf/d in June compared to 2013. At the same time, PEMEX's own consumption of natural gas increased in June, reaching just over 2.2. Bcf/d, a 700,000 Mcf/d build over last year, increasing the need for US gas imports. Pemex consumes gas in petrochemical manufacturing and refining. Bentek is a unit of Platts.

### Federal, state cooperation needed to get infrastructure built: La Fleur

A top federal regulator Thursday outlined the challenges necessary to meet the infrastructure demands of the nation's energy mix, highlighting the need for federal and state regulators to work together on the issue. "I believe we have a tremendous need for infrastructure in this country, and infrastructure of almost any type does not get built without federal and state cooperation," Federal Energy Regulatory Commission Chairman Cheryl LaFleur told a forum at the Center for Strategic and International studies in Washington.

"If we're serious about using more gas for generation, then we need to get the pipelines built or the storage facilities [built] in order to do so. If not, then we have to build whatever resources we need for the other resources we're going to need, but we're going to have to be clear-eyed in what it's going to take."

LaFleur noted the myriad of factors driving the need for new gas and electric infrastructure, including the Environmental Protection Agency's proposed Clean Power Plan, shifts in the generation mix and the increasing age of current infrastructure assets. Overall, she said it will take "significant collaboration and a real push to do the investment in infrastructure that we need," comparing the necessary effort to the push deployed to build nuclear power plants following the oil embargo of the 1970's.

"There was a major push to get things built," LaFleur said of the efforts to build nuclear plants at that time. "I almost see us going into that cycle again, but with building different things." "We cannot build the infrastructure we need to keep the lights on without state-federal cooperation," La Fleur said.

Source: Platts Gas Daily

#### Data

- October 2014 Natural Gas Futures Contract (as of September 5), NYMEX at Henry Hub closed at \$3.793 per million British thermal units (MMBtu)
- October 2014 Light, Sweet Crude Oil Futures Contract WTI
  (as of September 5), closed at \$93.29 per U.S. oil barrel
  (Bbl.) or approximately \$16.08 per MMBtu

#### Last week: Texas warmer than normal

For the week beginning 8/31/14 and ending 9/6/14, 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<br>Region         | Total<br>CDD for<br>week<br>ending<br>9/6/14 | *Week<br>CDD + / -<br>from<br>normal | Year-to-<br>date total<br>CDD | * YTD %<br>+/- from<br>normal |
| Amarillo                  | 90   | 32                                   | 1401                          | 17%                           |
| Austin                    | 143  | 20                                   | 2287                          | -3%                           |
| DFW                       | 154  | 41                                   | 2389                          | 11%                           |
| El Paso                   | 117  | 25                                   | 2319                          | 19%                           |
| Houston                   | 128  | 14                                   | 2386                          | 4%                            |
| SAT                       | 152  | 30                                   | 2730                          | 13%                           |
| Texas**                   | 131  | 23                                   | 2183                          | 1%                            |
| U.S.**                    | 77   | 27                                   | 1082                          | 5%                            |

\* 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 populationweighted by NOAA.

-999 = Normal Less Than 100 or Ratio Incalculable

# Last week: U.S. natural gas storage at 2,709 Bcf

For the week ending 8/29/2014 working gas in storage increased from 2,630 Bcf to 2,709 Bcf. This represents an increase of 79 Bcf from the previous week. Stocks were 471 Bcf lower than last year at this time and 495 Bcf below the 5 year average of 3,204 Bcf.

Source: <a href="http://ir.eia.gov/ngs/ngs.html">http://ir.eia.gov/ngs/ngs.html</a>

| U.S. WORKING GAS IN STORAGE |                           |               |                        |  |  |
|-----------------------------|---------------------------|---------------|------------------------|--|--|
| Region                      | Week<br>ending<br>8/29/14 | Prior<br>week | One-<br>week<br>change | Current $\Delta$ from 5-YR Average (%) |  |
| East                        | 1,462                     | 1,403         | 59                     | -13.5%                                 |  |
| West                        | 426                       | 416           | 10                     | -9.7%                                  |  |
| Producing                   | 821                       | 811           | 10                     | -21.2%                                 |  |
| Lower 48<br>Total           | 2,709                     | 2,630         | 79                     | -15.4%                                 |  |

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 two for the week but was down 54 when compared to twelve months ago. The total rig count for the U.S. was up 11 from last week and up 158 when compared to twelve months ago. The total rig count includes both oil and natural gas rotary rigs.

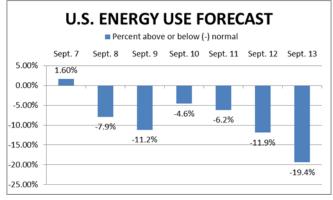
Source: Baker Hughes

| BAKER HUGHES ROTARY RIG COUNT |                 |                   |          |                 |
|-------------------------------|-----------------|-------------------|----------|-----------------|
|                               | As of 9/05/2014 | +/- prior<br>week | Year ago | +/- year<br>ago |
| Texas                         | 907             | 7                 | 838      | 69              |
| U.S. gas                      | 340             | 2                 | 394      | -54             |
| U.S. oil                      | 1584            | 9                 | 1365     | 219             |
| U.S. total                    | 1925            | 11                | 1767     | 158             |
| Canada                        | 414             | 5                 | 389      | 25              |

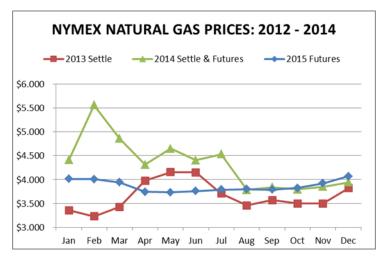
# This week: U.S. energy below normal

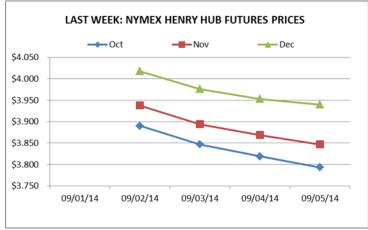
U.S. energy use is predicted to be below normal most of this week, according to the Dominion Energy Index, as shown below. Dominion forecasts total U.S. residential energy usage, a component of which is natural gas.

Source: Dominion Energy Index



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





\*Data for September 1 is unavailable due to the Labor Day holiday.

## NATURAL GAS PRICE SUMMARY AS OF 9/5/2014

|                 | This<br>Week | +/- Last<br>Week |         | 12-Month<br>Strip Avg. |  |
|-----------------|--------------|------------------|---------|------------------------|--|
| US Oct. futures |              |                  |         |                        |  |
| NYMEX           | \$3,793      | -\$0.272         | \$0.226 | \$3.849                |  |