

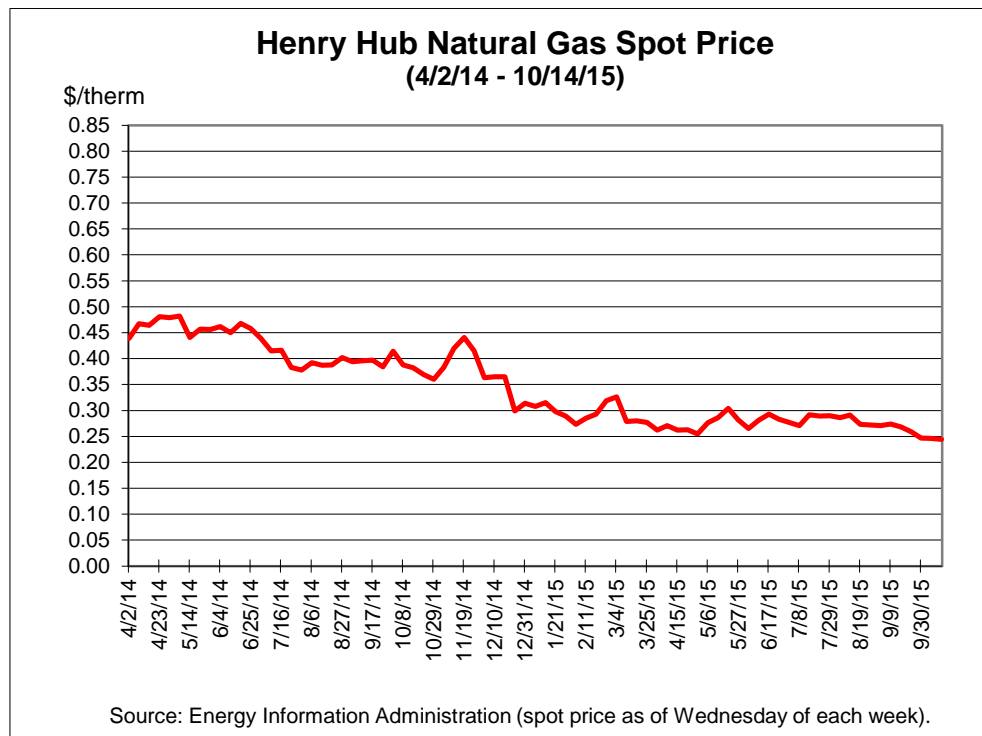
WHOLESALE NATURAL GAS MARKET ASSESSMENT

Wholesale Natural Gas Futures Prices as of October 5, 2015

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Outlook for Wholesale Natural Gas Prices

This report presents the Office of Technical and Regulatory Analysis' ("OTRA") assessment of wholesale natural gas supply and prices for October 2015.¹ OTRA's current assessment of the natural gas market suggests that wholesale natural gas prices may remain below \$0.30 per therm during October 2015 (see Henry Hub Spot Price figure). Recent natural gas spot prices are at least 30 percent lower than prices from the same period a year ago.



The Energy Information Administration ("EIA") indicates that the average Henry Hub natural gas spot price for September 2015 was about \$0.27 per therm, down from \$0.28 per therm for the previous month.² In its Short-Term Energy Outlook ("STEO") for October 2015, EIA indicates that "[m]onthly average Henry Hub spot prices are forecast to remain lower than [\$0.30 per therm] through January, and lower than [\$0.35 per therm] through the rest of the forecast. The projected Henry Hub natural gas prices [are expected to average

¹ This assessment is based on information collected from various sources. Projecting future conditions is a difficult task at best, so these comments are subject to change as new information becomes available.

² EIA, *Short-Term Energy Outlook* (October 2015) at 12.

\$0.281 per therm] in 2015 and [\$0.305 per therm] in 2016.”³ Natural gas prices averaged \$0.437 per therm in 2014.

As of October 9, 2015, natural gas in storage stood at 3,733 billion cubic feet (“Bcf”). The working gas in storage is up 14 percent from the same period a year ago, and is up by about 5 percent compared to the 5-year average.

Commodity prices, together with the costs Washington Gas Light (“WGL”) incurs for storage, peaking, and balancing, have resulted in a lower retail price than what was experienced last year. Specifically, the costs WGL incurs to acquire and deliver natural gas to customers are reflected in WGL’s retail commodity price, called the Purchased Gas Charge (“PGC”).⁴ The PGC for October 2015 is 48.20 cents (\$0.48) per therm compared with 55.42 cents (\$0.55) per therm for the same period a year ago—down 13.0 percent. The PGC for October 2015 is unchanged from the previous month.

The major factors that contribute to this outlook are described below. These factors include the weather, the economy, the storage situation, the supply situation, and national security.

Weather

Weather variations always have an effect on natural gas price formation. As of October 14, 2015, the National Oceanic and Atmospheric Administration (“NOAA”) indicated that its outlook for the remainder of October generally calls for normal to above normal temperatures for the entire nation.⁵ Looking ahead, as of October 15, the November temperature outlook calls for above normal temperatures for much of the nation. The expected weather for the remainder of October and November should be neutral for natural gas prices.

As noted in the previous Outlook, NOAA provided its updated outlook for the Atlantic hurricane season on August 6, 2015.⁶ NOAA expects a below normal hurricane season, with 6 to 10 named storms, 1 to 4 hurricanes, and 0 to 1 major hurricanes. As of October 14, 2015, there have been ten (10) named storms and three (3) hurricanes, two of which developed into a major hurricane. Thus far, there has been no significant storm-related disruption to the energy infrastructure—in the Gulf of Mexico, for example—that tend to contribute to upward pressure on natural gas prices. With the official hurricane season winding down the impact remains neutral.

Economic Conditions

National economic factors also contribute to the formation of wholesale natural gas prices. The Federal Reserve’s Beige Book provides anecdotal information on current economic

³ Ibid.

⁴ The current Purchased Gas Charge reflects current market conditions and current collections. The current cost of gas (including commodity, demand, and other cost adjustments) reflects the seasonal market. Alternative suppliers’ newer fixed price offers should generally reflect the PGC benchmark, with anticipated price changes as well, over the next twelve months.

⁵ NOAA at <http://www.cpc.ncep.noaa.gov/>.

⁶ NOAA, *2015 Atlantic Hurricane Season Outlook* (August 6, 2015).

conditions from various regions—twelve Federal Reserve Districts—in the nation.⁷ Reports from the twelve regions indicate continued modest expansion in economic activity during the reporting period from mid-August through early October. A number of Districts point to the strong dollar as restraining manufacturing activity as well as tourism spending. However, business contacts across the nation were generally optimistic about the near-term outlook. Consumer spending grew moderately in the latest reporting period with most regions reporting that non-auto sales grew at a modest or moderate rate, while vehicle sales generally grew more strongly. Manufacturing turned in a mixed but generally weaker performance during the latest reporting period, with a number of Districts noting adverse effects from the energy sector as well as the strong dollar. Housing and commercial real estate markets both improved since the last report as home prices and sales volume increased in almost all regions, and a number of Districts noted relative strength in the market for lower or moderately priced homes. Commercial and residential multi-family construction showed further strength, but single-family construction activity was more mixed but with a modest increase. Labor markets tightened in most regions, with some reports of labor shortages—particularly for skilled workers. Wage growth was mostly subdued, although there were scattered reports of increased wage pressures. Prices remained fairly stable as most Districts reported that prices of both inputs and finished goods were little changed or up only slightly. Thus, at present, the current state of economic activity may still be relatively neutral for natural gas prices.

Storage

EIA reports that the working gas in storage was 3,733 Bcf as of October 9, 2015, a net increase of 100 Bcf from the previous week. Stocks were 447 Bcf higher than the same period a year ago—up 13.6 percent—and up 168 Bcf from the 5-year average of 3,565 Bcf—an increase of 4.7 percent.⁸

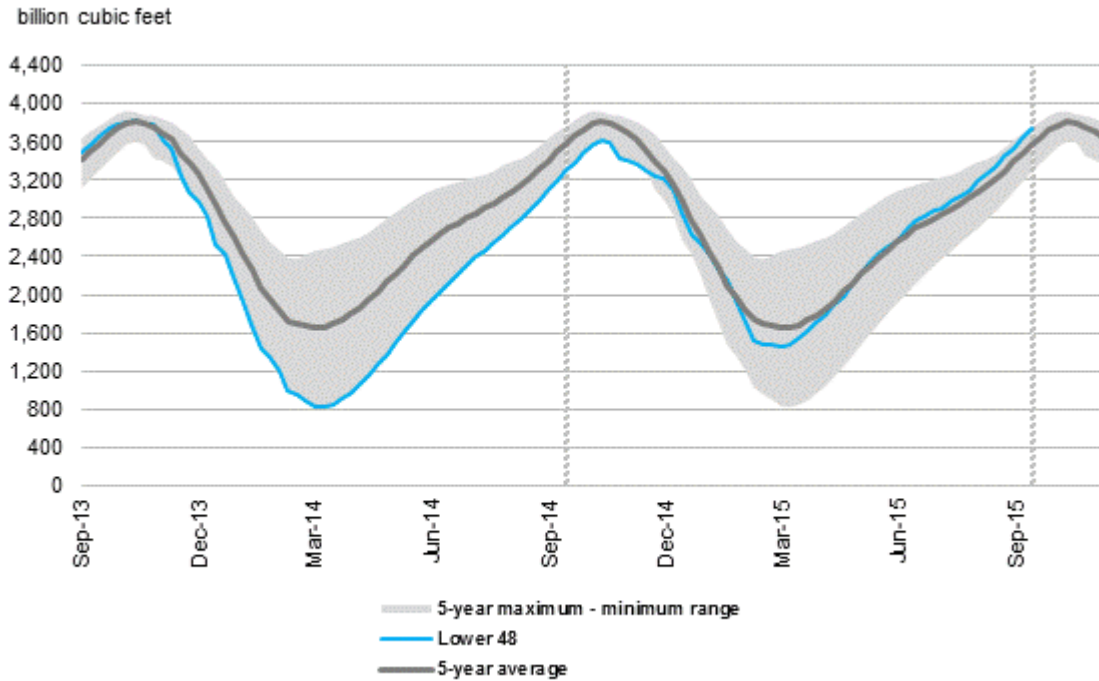
EIA indicates that it **“projects end-of-October 2015 inventories will total 3,965 Bcf, which would be 158 Bcf above the five-year average, and the highest end-of-October level on record.”**⁹ The current storage picture suggests some downward pressure for natural gas prices.

⁷ Beige Book (released October 14, 2015).

⁸ EIA, *Weekly Natural Gas Storage Report* (released October 15, 2015).

⁹ EIA, *STEO* (October 2015) at 12.

Working gas in underground storage compared with the 5-year maximum and minimum



Source: U.S. Energy Information Administration

Note: The shaded area indicates the range between the historical minimum and maximum values for the weekly series from 2010 through 2014. The dashed vertical lines indicate current and year-ago weekly periods.
 Source: EIA, *Weekly Natural Gas Storage Report* (released October 15, 2015)

Supply

Flexibility in the nation’s domestic production has helped to soften upward price pressure, especially with the continued development of natural gas in shale formations. In the October 2015 STEO, EIA expects natural gas marketed production to grow by an annual rate of 5.6 percent in 2015 and 1.9 percent in 2016. EIA indicates that **“[i]ncreases in drilling efficiency will continue to support growing natural gas production in the forecast despite relatively low natural gas prices. Most of the growth is expected to come from the Marcellus Shale, as the backlog of uncompleted wells is reduced and as new pipelines come online to deliver Marcellus natural gas to markets in the Northeast. Increases in domestic natural gas production are expected to reduce demand for natural gas imports from Canada and to support growth in exports to Mexico. Earlier this year, natural gas net imports fell to the lowest monthly level since 1987, averaging 2.3 Bcf/d [Bcf per day] in both May and June. EIA expects natural gas exports to Mexico, particularly from the Eagle Ford Shale in South Texas, to increase because of growing demand from Mexico’s electric power sector coupled with flat natural gas production in Mexico. EIA projects [liquefied natural gas (LNG)] gross exports will increase to an average of 0.79 Bcf/d in 2016, with the startup of a major LNG liquefaction plant in the Lower 48 states at the end of this year.”**¹⁰

¹⁰ EIA, *STEO* (October 2015) at 12.

National Security

As noted in previous reports, we see little danger to the natural gas supply.¹¹ Most of the U.S. supply is secure, in that it is generally domestically produced or imported from Canada.

Future Natural Gas Prices

The PGC rate of roughly \$0.48 per therm for October 2015 is unchanged from the previous month, but is down 13.0 percent compared to the same period a year ago.¹² The November 2015 PGC (assuming that the commodity market adjustment factor is zero) may decline to around \$0.44 per therm, based, in part, on the expectation that near-term NYMEX futures prices continue to trade between \$0.23 and \$0.28 per therm, among other things. OTRA's assessment of natural gas prices may be significantly different from actual market prices if: (i) there are significant variations in weather-related factors, (ii) crude oil prices change significantly, (iii) other substantial disruptions to the energy market occur, or (iv) certain cost-related assumptions are significantly different.

As always, investments in energy efficiency and conservation measures are important ways toward reducing energy consumption and lowering energy bills. Ratepayers are encouraged to invest in measures such as insulation, weather stripping, or replacing an old inefficient water heater and/or furnace. Finally, for those residential consumers whose budgets are severely challenged, arrangements for assistance should be made as soon as possible in anticipation of need. Contact either the District Department of the Environment's Energy Office or the D.C. Public Service Commission's Office of Consumer Services for advice and/or solutions as well as programs such as the Washington Area Fuel Fund (888-318-9233).

¹¹ As of October 14, 2015, there were no credible or impending threats against the United States. The National Terrorism Advisory System, or NTAS, replaces the color-coded Homeland Security Advisory System.

¹² The commodity market adjustment factor for the October 2015 PGC was \$0.0 per therm, resulting in the adjusted PGC (excluding the commodity market adjustment factor) being equal to \$0.4820 per therm.

Wholesale Natural Gas Price/Supply Assessment Information

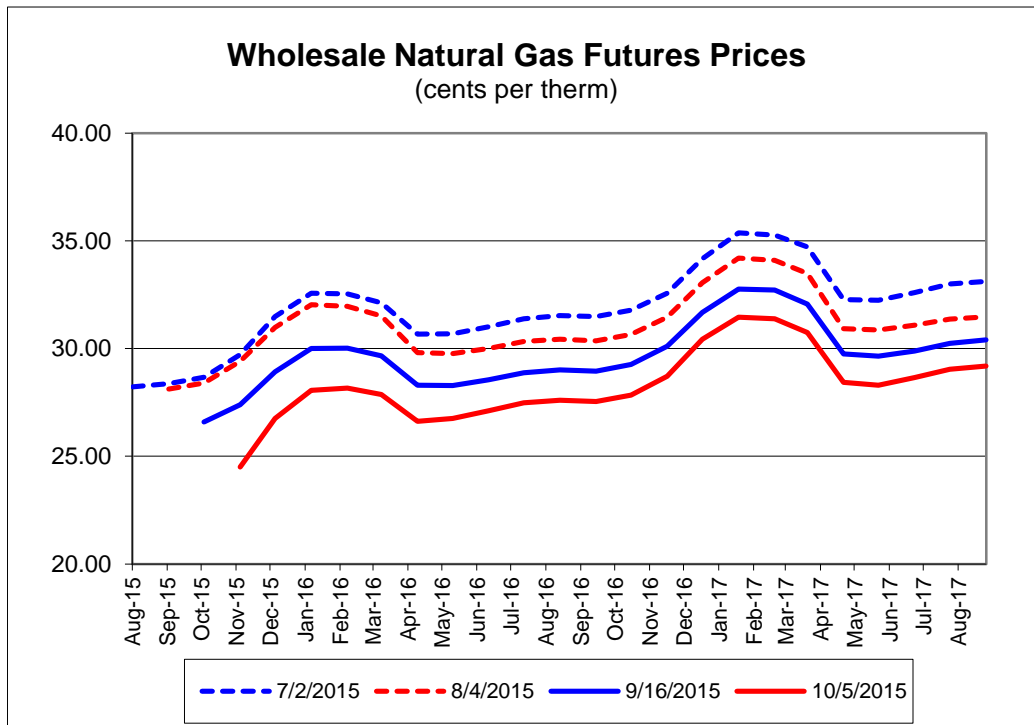
Current for October 5, 2015

Price Information

Twelve Month NYMEX Strip Components
10/5/15, cents per therm

Henry Hub Spot Market Price
10/5/15, cents per therm

	<u>Current Month</u>		<u>Previous Month</u>		<u>Current Only Available</u>
Nov 15	24.50		Nov 15	27.39	23.2
Dec 15	26.76		Dec 15	28.92	
Jan 16	28.06		Jan 16	30.00	
Feb 16	28.16		Feb 16	30.02	
Mar 16	27.87		Mar 16	29.66	
Apr 16	26.63		Apr 16	28.30	
May 16	26.76		May 16	28.28	
Jun 16	27.12		Jun 16	28.55	
Jul 16	27.49		Jul 16	28.88	
Aug 16	27.61		Aug 16	29.01	
Sep 16	27.55		Sep 16	28.96	
Oct 16	27.84		Oct 16	29.27	



The current PGC for October 2015 is about \$0.48 per therm. Assuming, among other things, that near-term futures prices remain around \$0.23 to \$0.28 per therm, the PGC rate (excluding the commodity market adjustment factor) for November 2015 may dip to \$0.44 per therm. However, given the uncertainty about the weather, as well as other factors, this assessment could easily change. The assessment for October 2015 is that wholesale prices may remain below \$0.30 per therm, resulting in wholesale prices that are lower by at least 30 percent, compared to year ago levels (see Market Conditions Summary).

Weather Forecast

1. Current for next few days to one week:

<http://www.cnn.com/Weather/>

<http://home.accuweather.com/>

2. National Oceanic and Atmospheric Administration Forecast for the Winter

<http://www.noaa.gov/>

3. U.S. Weather Service Atlantic Hurricane and Storm Reports

<http://www.nhc.noaa.gov/>

Wholesale Natural Gas Market Conditions Summary October 15, 2015

Factors	This Month	Summer Season
Oil Prices		
Weather - Temperature		
Weather - Hurricanes		
Economic Conditions		
Storage		
Natural Gas Supply		
National Security		
Overall		

Code: Red - Upward Pressure
Blue - Downward pressure
Yellow - No Change
No color - Not Applicable
N.A.