

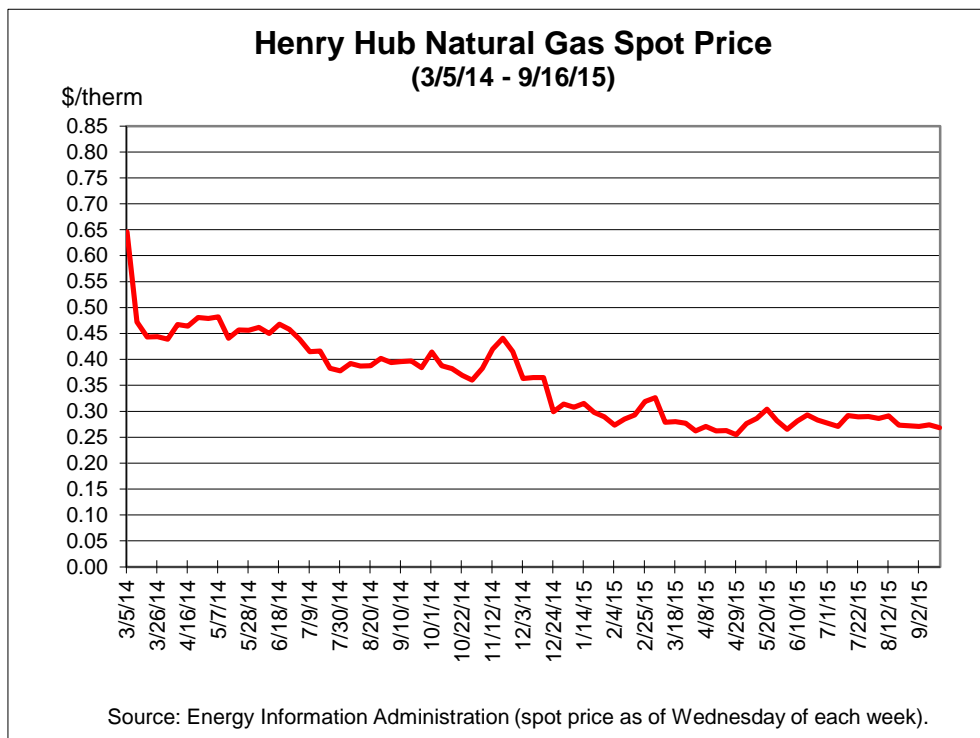
# WHOLESALE NATURAL GAS MARKET ASSESSMENT

## Wholesale Natural Gas Futures Prices as of September 16, 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 September 2015.<sup>1</sup> OTRA's current assessment of the natural gas market suggests that wholesale natural gas prices may remain around \$0.30 per therm, or less, during September 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 August 2015 was about \$0.28 per therm, nearly unchanged from the previous month.<sup>2</sup> In its Short-Term Energy Outlook ("STEO") for September 2015, EIA expects **"monthly average spot prices [to] remain lower than [\$0.30 per therm] through November, and lower than [\$0.40 per therm] through the remainder of the forecast. The projected**

<sup>1</sup> 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.

<sup>2</sup> EIA, *Short-Term Energy Outlook* (September 2015) at 9.

**Henry Hub natural gas prices [are expected to average \$0.284 per therm] in 2015 and [\$0.311 per therm] in 2016.”<sup>3</sup>** Natural gas prices averaged \$0.437 per therm in 2014.

As of September 11, 2015, natural gas in storage stood at 3,334 billion cubic feet (“Bcf”). The working gas in storage is up 16 percent from the same period a year ago, and is up by about 4 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”).<sup>4</sup> The PGC for September 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 September 2015, however, is up 4.8 percent 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 September 17, 2015, the National Oceanic and Atmospheric Administration (“NOAA”) indicated that its outlook for the remainder of September generally calls for above normal temperatures for the central and western portions of the nation.<sup>5</sup> Below normal temperatures are generally expected for the Pacific Northwest. Near normal temperatures are likely across the Mid-Atlantic and Southeast. The expected weather for the remainder of September may be somewhat neutral for natural gas prices. Looking ahead, the October temperature outlook calls for above normal temperatures for most areas west of the Rockies, the Northern Plains, and from most of the Mississippi Valley eastward to the Atlantic Coast. Below normal temperatures are expected in southwestern Texas and southern New Mexico. The expected weather for October may also be somewhat 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.<sup>6</sup> NOAA expects a below normal hurricane season, with 6 to 10 named storms, 1 to 4 hurricanes, and 0 to 1 major hurricanes. Also it was previously reported that on July 1, 2015, researchers at Colorado State University provided an updated report on the 2015 Atlantic hurricane season and continue to expect a below average hurricane season—due to a strong El Niño underway and cooler than normal temperatures for the tropical

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<sup>3</sup> Ibid.

<sup>4</sup> 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.

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

<sup>6</sup> NOAA, *2015 Atlantic Hurricane Season Outlook* (August 6, 2015).

Atlantic.<sup>7</sup> They estimate that 2015 will have eight (8) named storms (median is 12.0), about three (3) hurricanes (median is 6.5), and only one (1) major hurricane (median is 2.0) rated at Category 3 or above. As of September 17, 2015, there have been eight (8) named storms and two (2) hurricanes, one 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.

## **Economic Conditions**

National economic factors also contribute to the formation of wholesale natural gas prices. The Federal Open Market Committee (“FOMC”) indicated in its latest statement that economic growth has expanded moderately in recent months.<sup>8</sup> In particular, the FOMC noted that household spending and business fixed investment have been increasing moderately, and the real estate sector has improved further; however, net exports have been soft. The labor market continued to improve, with solid job gains and declining unemployment—down to 5.1 percent in August from 5.7 percent in January 2015. In general, labor market indicators show that the underutilization of labor resources has diminished since early this year. Meanwhile, inflation has continued to run below the FOMC’s longer-run objective, partly reflecting declines in energy prices and in prices of non-energy imports. To support continued progress toward maximum employment and price stability, the FOMC reaffirmed its view that the current low target range for the short-term interest rate remains appropriate. 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 3,334 Bcf as of September 11, 2015, a net increase of 73 Bcf from the previous week. Stocks were 456 Bcf higher than the same period a year ago—up 15.8 percent—and up 125 Bcf from the 5-year average of 3,209 Bcf—an increase of 3.9 percent.<sup>9</sup>

EIA indicates that it **“projects end-of-October 2015 inventories will total 3,840 Bcf, which would be 43 Bcf above the five-year average.”**<sup>10</sup> Although unexpected hot weather over for the remainder of September and the month of October could slow the storage build, the current picture suggests neutral pressure for natural gas prices.

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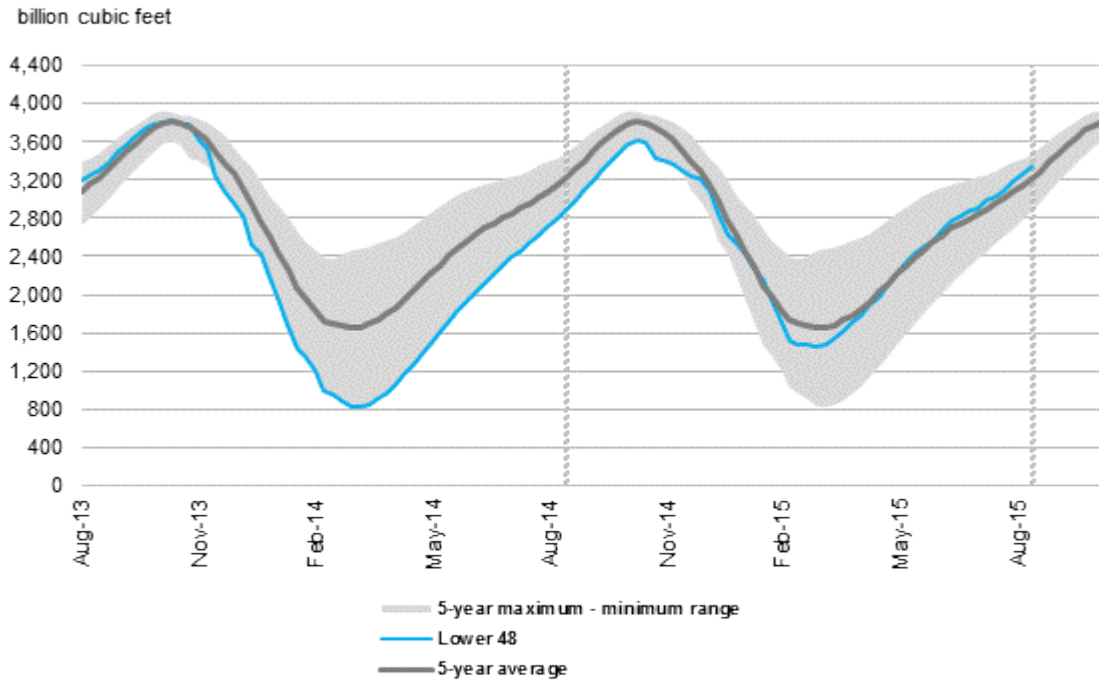
<sup>7</sup> Department of Atmospheric Science, Colorado State University, *Forecast of Atlantic Seasonal Hurricane Activity and Landfall Strike Probability for 2015* (July 1, 2015).

<sup>8</sup> Statement of the Federal Open Market Committee (released September 17, 2015).

<sup>9</sup> EIA, *Weekly Natural Gas Storage Report* (released September 17, 2015).

<sup>10</sup> EIA, *STEO* (September 2015) at 9.

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 September 17, 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 September 2015 STEO, EIA expects natural gas marketed production to grow by an annual rate of 5.7 percent in 2015 and 2.2 percent in 2016. EIA indicates that **“moderate production growth through 2016, with increases in the Lower 48 states expected to more than offset continuing production declines in the Gulf of Mexico. Increases 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.”**<sup>11</sup>

<sup>11</sup> EIA, *STEO* (September 2015) at 9.

## **National Security**

As noted in previous reports, we see little danger to the natural gas supply.<sup>12</sup> 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 September 2015 is up 4.8 percent from the previous month, but is down 13.0 percent compared to the same period a year ago.<sup>13</sup> The October 2015 PGC (assuming that the commodity market adjustment factor is zero) may remain around \$0.48 per therm, based, in part, on the expectation that near-term NYMEX futures prices continue to trade between \$0.26 and \$0.30 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).

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<sup>12</sup> As of September 18, 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.

<sup>13</sup> The commodity market adjustment factor for the September 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

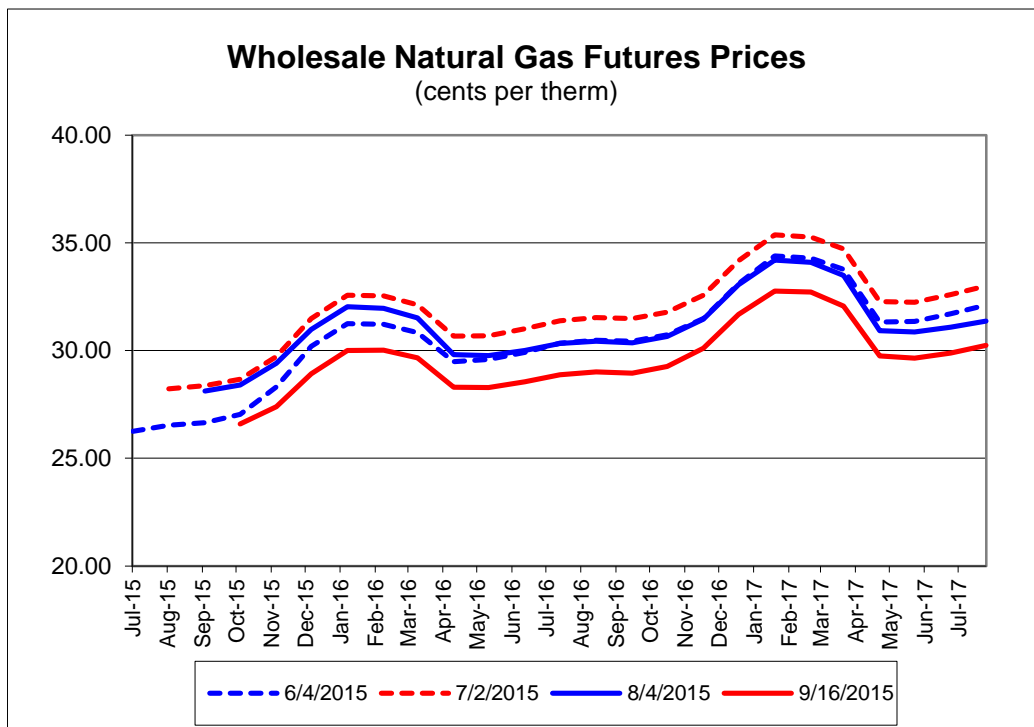
Current for September 16, 2015

## Price Information

Twelve Month NYMEX Strip Components  
9/16/15, cents per therm

Henry Hub Spot Market Price  
9/16/15, cents per therm

<u>Current Month</u>	<u>Previous Month</u>	<u>Current Only Available</u>
Oct 15    26.60	Oct 15    28.41	26.8
Nov 15    27.39	Nov 15    29.41	
Dec 15    28.92	Dec 15    30.98	
Jan 16    30.00	Jan 16    32.04	
Feb 16    30.02	Feb 16    31.96	
Mar 16    29.66	Mar 16    31.52	
Apr 16    28.30	Apr 16    29.82	
May 16    28.28	May 16    29.77	
Jun 16    28.55	Jun 16    30.01	
Jul 16    28.88	Jul 16    30.34	
Aug 16    29.01	Aug 16    30.44	
Sep 16    28.96	Sep 16    30.36	



The current PGC for September 2015 is about \$0.48 per therm. Assuming, among other things, that near-term futures prices remain around \$0.26 to \$0.30 per therm, the PGC rate (excluding the commodity market adjustment factor) for October 2015 may remain around \$0.48 per therm. However, given the uncertainty about the weather, as well as other factors, this assessment could easily change. The assessment for September 2015 is that wholesale prices may remain around \$0.30 per therm, or less, 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  
September 18, 2015**

<b>Factors</b>	<b>This Month</b>	<b>Summer Season</b>
Oil Prices	Yellow	Yellow
Weather - Temperature	Yellow	Red
Weather - Hurricanes	Yellow	Yellow
Economic Conditions	Yellow	Yellow
Storage	Blue	Blue
Natural Gas Supply	Yellow	Yellow
National Security	Yellow	Yellow
Overall	Yellow	Yellow

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