

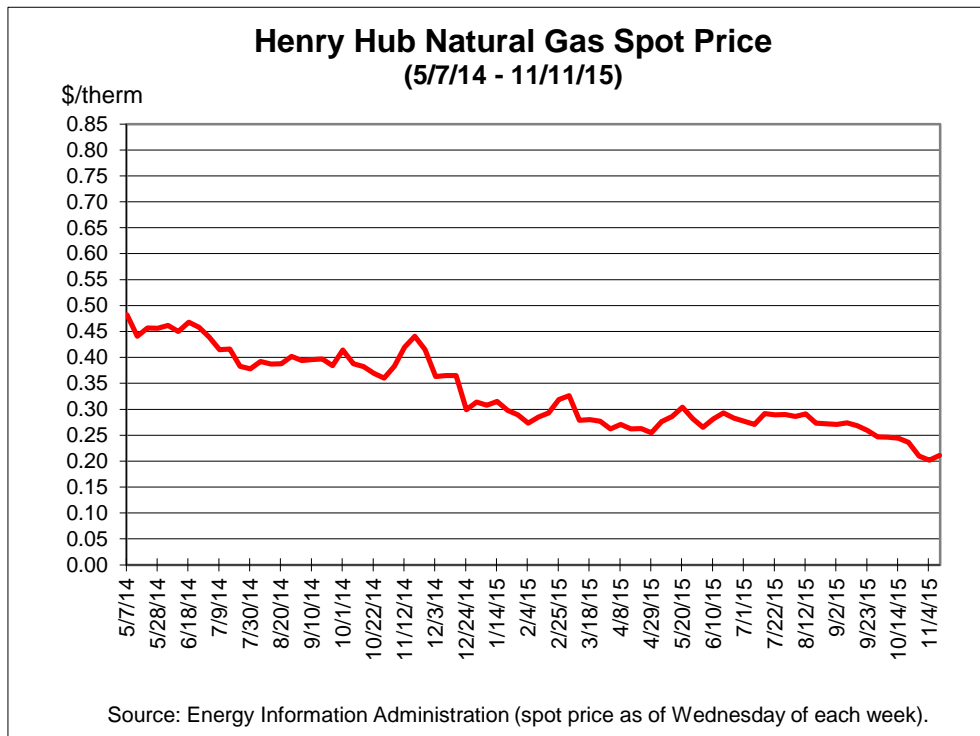
# WHOLESALE NATURAL GAS MARKET ASSESSMENT

## Wholesale Natural Gas Futures Prices as of November 5, 2015

by Roger Fujihara  
Office of Technical and Regulatory Analysis

### 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 November 2015.<sup>1</sup> OTRA's current assessment of the natural gas market suggests that wholesale natural gas prices may remain around \$0.25 per therm, or less, during November 2015 (see Henry Hub Spot Price figure). Recent natural gas spot prices are at least 40 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 October 2015 was about \$0.23 per therm, down from about \$0.27 per therm for the previous month.<sup>2</sup> In its Short-Term Energy Outlook ("STEO") for November 2015, EIA indicates that **“[w]arm weather at the end of October, strong inventory builds, continuing production growth, and expectations for a warm winter contributed to spot prices falling to three-year lows in recent weeks. Monthly average Henry Hub spot prices are forecast to remain lower than [\$0.30 per therm] through June 2016, and lower than**

<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* (November 2015) at 10.

**[\$0.35 per therm] through the rest of the forecast. The projected Henry Hub natural gas price averages [\$0.269 per therm] in 2015 and [\$0.30 per therm] in 2016.”<sup>3</sup>** Natural gas prices averaged \$0.437 per therm in 2014.

As of November 6, 2015, natural gas in storage stood at 3,978 billion cubic feet (“Bcf”). The working gas in storage is up 10 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”).<sup>4</sup> The PGC for November 2015 is 42.89 cents (\$0.43) per therm compared with 55.42 cents (\$0.55) per therm for the same period a year ago—down 23.0 percent. The PGC for November 2015 is down 11 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 November 15, 2015, the National Oceanic and Atmospheric Administration (“NOAA”) indicated that its outlook for the remainder of November generally calls for normal to below normal temperatures across nearly two-thirds of the nation extending from the West Coast.<sup>5</sup> Above normal temperatures are favored along the Eastern Seaboard and most of Florida. The expected weather for the remainder of November may provide some upward pressure for natural gas prices.

## **Economic Conditions**

National economic factors also contribute to the formation of wholesale natural gas prices. In its most recent statement, the Federal Open Market Committee (“FOMC”) indicated that information received since the FOMC last met around mid-September suggests that economic activity has been expanding at a moderate pace. Household spending and business fixed investment have been increasing at solid rates in recent months, and the housing sector has improved further. Although the pace of job gains slowed, the unemployment rate held steady—down to 5.0 percent in October compared to 5.7 percent in January. Labor market indicators generally show that underutilization of labor resources has diminished since early this year. In addition, inflation has continued to run below the Committee's longer-run objective, partly reflecting declines in energy prices and in prices of non-energy imports. The FOMC maintained

---

<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/>.

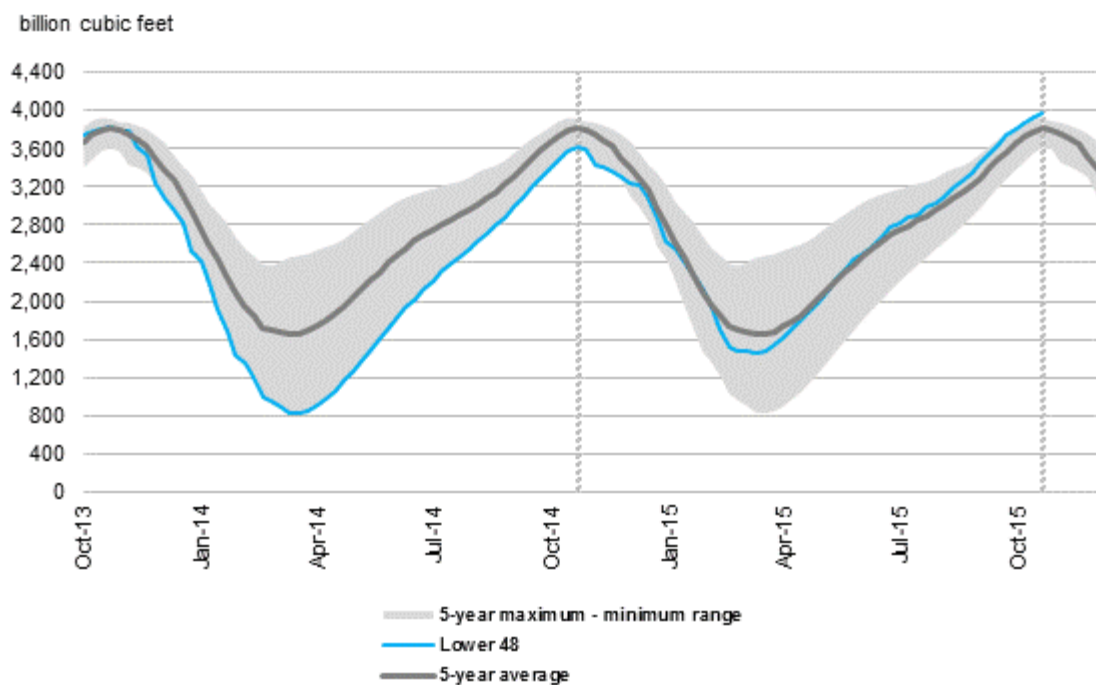
its low interest rate target and suggested that a policy change would occur when there has been further improvement in the labor market and expectations that inflation will move to its 2 percent objective over the medium term.<sup>6</sup> Thus, at present, the current state of economic activity may still be relatively neutral for natural gas prices.

## Storage

EIA reports that the working gas in storage was 3,978 Bcf as of November 6, 2015, a net increase of 49 Bcf from the previous week. Stocks were 373 Bcf higher than the same period a year ago—up 10.3 percent—and up 173 Bcf from the 5-year average of 3,805 Bcf—an increase of 4.5 percent.<sup>7</sup>

EIA indicates that “[i]nventory builds have been strong throughout the summer, with net injections surpassing the five-year (2010–14) average during most weeks. With an estimated net injection of 2,502 Bcf since the start of the refill season in April, the 2015 injection season has been the second-highest net build on record but falls short of last year’s record build of 2,780 during the same time frame.”<sup>8</sup> The current storage picture suggests some downward pressure for natural gas prices.

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 November 13, 2015)

<sup>6</sup> Statement of the Federal Open Market Committee (released October 28, 2015).  
<sup>7</sup> EIA, *Weekly Natural Gas Storage Report* (released November 13, 2015).  
<sup>8</sup> EIA, *Natural Gas Weekly Update* (released November 12, 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 November 2015 STEO, EIA expects natural gas marketed production to grow by an annual rate of 6.3 percent in 2015 and 2.0 percent in 2016. EIA indicates that **“[i]ncreases in drilling efficiency will continue to support growing natural gas production in the forecast despite 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. In August, natural gas net imports fell to 2.2 Bcf/d [Bcf per day], the lowest monthly level since 1987. 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 0.7 Bcf/d in 2016, with the startup of Cheniere's Sabine Pass LNG liquefaction plant in the Lower 48 states planned for early 2016.”**<sup>9</sup>

## National Security

As noted in previous reports, we see little danger to the natural gas supply.<sup>10</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 \$0.43 per therm for November 2015 is down 11.0 percent from the previous month, and is down 22.6 percent compared to the same period a year ago.<sup>11</sup> The December 2015 PGC (assuming that the commodity market adjustment factor is zero) may rise to around \$0.48 per therm, based, in part, on the expectation that near-term NYMEX futures prices continue to trade between \$0.22 and \$0.26 per therm but are not able to offset relatively higher storage costs incurred earlier in the storage season, 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

---

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

<sup>10</sup> As of November 16, 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>11</sup> The commodity market adjustment factor for the November 2015 PGC was \$0.0 per therm, resulting in the adjusted PGC (excluding the commodity market adjustment factor) being equal to \$0.4289 per therm.

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).

# Wholesale Natural Gas Price/Supply Assessment Information

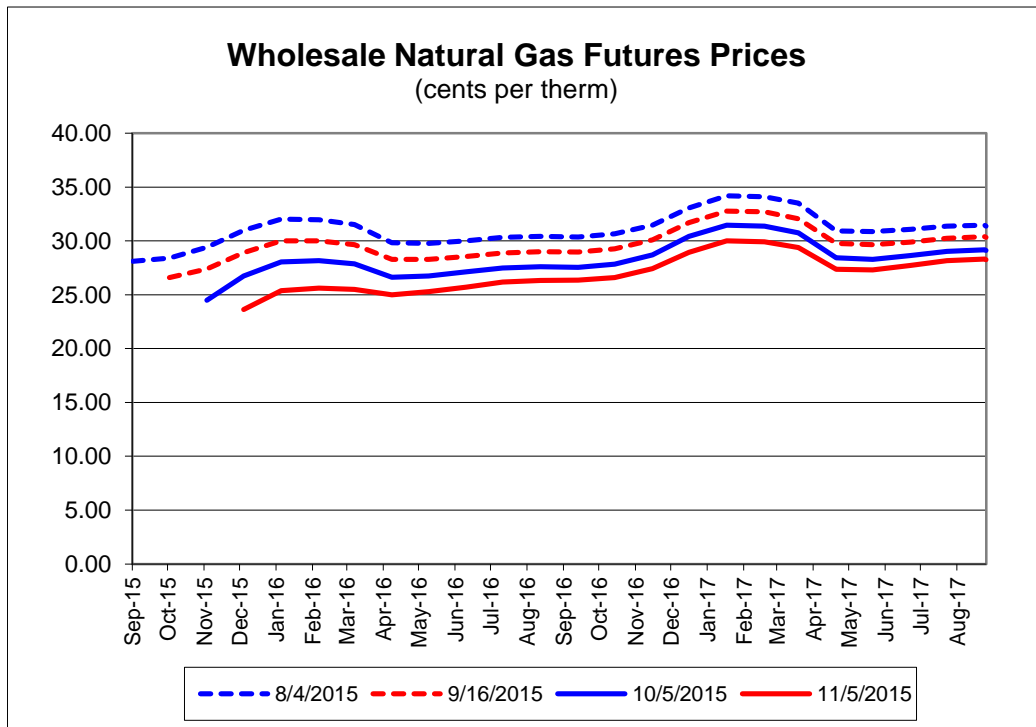
Current for November 5, 2015

## Price Information

Twelve Month NYMEX Strip Components  
11/5/15, cents per therm

Henry Hub Spot Market Price  
11/5/15, cents per therm

	<u>Current Month</u>	<u>Previous Month</u>	<u>Current Only Available</u>
Dec 15	23.64	Dec 15 26.76	20.9
Jan 16	25.39	Jan 16 28.06	
Feb 16	25.62	Feb 16 28.16	
Mar 16	25.51	Mar 16 27.87	
Apr 16	25.01	Apr 16 26.63	
May 16	25.28	May 16 26.76	
Jun 16	25.72	Jun 16 27.12	
Jul 16	26.18	Jul 16 27.49	
Aug 16	26.34	Aug 16 27.61	
Sep 16	26.35	Sep 16 27.55	
Oct 16	26.59	Oct 16 27.84	
Nov 16	27.42	Nov 16 28.72	



The current PGC for November 2015 is about \$0.43 per therm. Assuming, among other things, that near-term futures prices remain around \$0.22 to \$0.26 per therm and relatively higher costs for storage are passed on, the PGC rate (excluding the commodity market adjustment factor) for December 2015 may rise to \$0.48 per therm. However, given the uncertainty about the weather, as well as other factors, this assessment could easily change. The assessment for November 2015 is that wholesale prices may remain around \$0.25 per therm, or less, resulting in wholesale prices that are lower by at least 40 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**  
**November 16, 2015**

<b>Factors</b>	<b>This Month</b>	<b>Winter Season</b>
Oil Prices	Yellow	Yellow
Weather - Temperature	Red	Red
Weather - Hurricanes	No color	No color
Economic Conditions	Yellow	Yellow
Storage	Blue	Red
Natural Gas Supply	Yellow	Yellow
National Security	Yellow	Yellow
Overall	Yellow	Red

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