

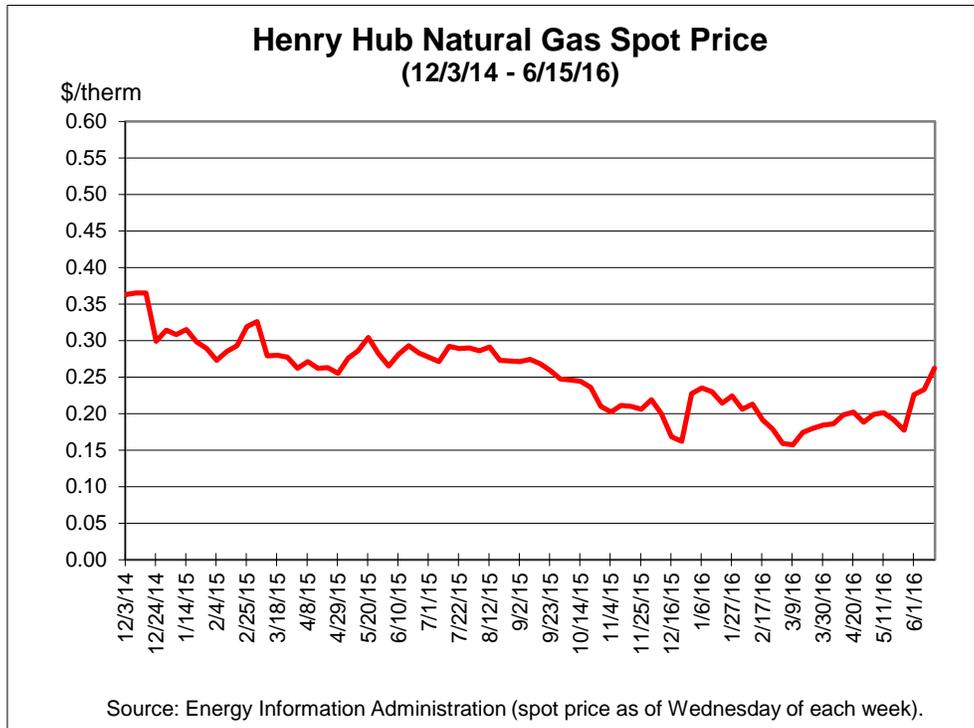
# WHOLESALE NATURAL GAS MARKET ASSESSMENT

## Wholesale Natural Gas Futures Prices as of June 3, 2016

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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 June 2016.<sup>1</sup> OTRA's current assessment of the natural gas market suggests that wholesale natural gas prices may remain less than \$0.30 per therm, or less, during June 2016 (see Henry Hub Spot Price figure). Recent natural gas spot prices are about 10 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 May 2016 was about \$0.19 per therm, unchanged from average of \$0.19 per therm for the previous month.<sup>2</sup> In its Short-Term Energy Outlook ("STEO") for June 2016, EIA indicates that **"[t]hrough the 2015–16 winter, prices remained relatively low because of lower demand as a result of warmer-than-normal temperatures, record inventory levels, and production growth. EIA expects natural gas prices will gradually rise through the summer, as demand from the electric power sector increases, but forecast prices remain lower than they were last summer. Monthly average Henry Hub spot prices**

<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* (June 2016) at 9.

**are forecast to remain lower than [\$0.30 per therm] through the end of 2016. Forecast Henry Hub natural gas prices average [\$0.222 per therm] in 2016 and [\$0.296 per therm] in 2017.”<sup>3</sup> Natural gas prices averaged \$0.263 per therm in 2015.**

As of June 10, 2016, natural gas in storage stood at 3,041 billion cubic feet (“Bcf”). The working gas in storage is up 26 percent from the same period a year ago, and is up by about 30 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 June 2016 is 47.57 cents (\$0.48) per therm, compared with 57.42 cents (\$0.57) per therm for the same period a year ago—down 17 percent. The PGC for June 2016 is up 17 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 June 16, 2016, the National Oceanic and Atmospheric Administration (“NOAA”) indicated that its outlook for July generally calls for above normal temperatures across most of the nation except for parts of the Central and Southern Plains—which may exhibit equal chances of above, near, or below-normal temperatures.<sup>5</sup> The expected weather for July may be somewhat positive for natural gas prices.

Separately, on May 27, 2016, NOAA released its 2016 Atlantic Hurricane Outlook. In particular, NOAA indicates that indicates that a near-normal hurricane season is most likely. The outlook calls for a 45% chance of a near-normal season, a 30% chance of an above-normal season, and a 25% chance of a below-normal season. NOAA states that this is a more challenging hurricane season outlook than most because it is difficult to determine whether there will be reinforcing or competing climate influences on tropical storm development. The outlook calls for a 70% probability for each of the following ranges of activity during the 2016 hurricane season: 10-16 named storms, which includes Alex in January; 4-8 hurricanes, which includes Alex in January; and 1-4 major hurricanes (rated at Category 3 or above, with a maximum sustained wind speed of at least 111 miles per hour). As of June 20, there have been four named storms—including Hurricane Alex in January 2016 and Tropical Storms Bonnie, Colin, and Danielle, which developed in May 2016 and June 2016, respectively. The Atlantic hurricane season generally runs from June 1 through November 30. Any significant storm-related

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<sup>3</sup> Ibid at 9.

<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/>.

disruption to the energy infrastructure—in the Gulf of Mexico, for example—will tend to contribute to upward pressure on natural gas prices. Thus far, there have been no significant impact on the energy infrastructure.

## Economic Conditions

National economic factors also contribute to the formation of wholesale natural gas prices. The Federal Open Market Committee (“FOMC”) maintained a low target range for short-term interest rates.<sup>6</sup> The FOMC indicated that information received since the Committee met in April indicates that the pace of improvement in the labor market has slowed while growth in economic activity appears to have picked up and the growth in consumer spending has strengthened. Although the unemployment rate has declined—down to 4.7 percent in May 2016, compared to 5.5 percent for the same period a year ago—job gains have diminished. Since the beginning of the year, the housing sector has continued to improve and the drag from net exports appears to have lessened, but business fixed investment has been soft. Inflation has continued to run below the FOMC’s 2 percent longer-run objective, partly reflecting earlier declines in energy prices and in prices of non-energy imports. Inflation is expected to remain low in the near term, but to rise to 2 percent over the medium term as the transitory effects of past declines in energy and import prices dissipate and the labor market strengthens further. The stance of monetary policy remains accommodative, thereby supporting further improvement in labor market conditions and a return to 2 percent inflation. 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 3,041 Bcf as of June 10, 2016, a net increase of 69 Bcf from the previous week. Stocks were 633 Bcf higher than the same period a year ago—up 26.3 percent—and up 704 Bcf from the 5-year average of 2,337 Bcf—an increase of 30.1 percent.<sup>7</sup> EIA indicates that working gas stocks **“in March ended at 2,492 Bcf, the highest end-of-withdrawal-season level on record. The first significant inventory increase of the injection season occurred the week ending April 22, with a 73 Bcf build. For the past several weeks, injections have been somewhat lower than the previous five-year (2011-15) average. Looking to the start of next winter, EIA forecasts natural gas inventories to be 4,161 Bcf at the end of October 2016, which would be the highest level on record to begin the heating season. Although EIA projects lower-than-average injections, the record high starting point of the injection season allows for a projected end-of-October record high.”**<sup>8</sup> Moreover, EIA notes that while the year-over-year storage surplus fell for the tenth consecutive week, the most recent report marks the earliest week that working gas inventories surpassed the 3,000 Bcf threshold, which typically isn’t reached until mid-August or early September.<sup>9</sup> Thus, the current storage picture suggests some downward pressure for natural gas prices.

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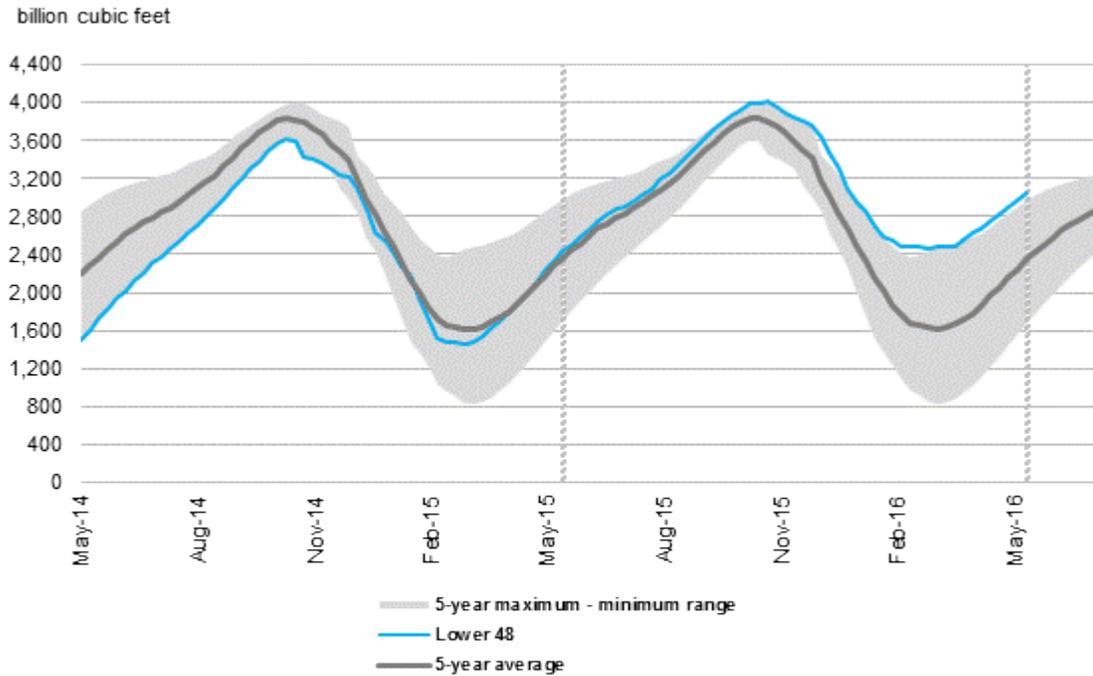
<sup>6</sup> *Statement of the Federal Open Market Committee* (released June 15, 2016).

<sup>7</sup> EIA, *Weekly Natural Gas Storage Report* (released June 16, 2016).

<sup>8</sup> EIA, *STEO* (June 2016) at 8 and 9.

<sup>9</sup> EIA, *Natural Gas Weekly Update* (released June 16, 2016).

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 2011 through 2015. The dashed vertical lines indicate current and year-ago weekly periods.  
 Source: EIA, *Weekly Natural Gas Storage Report* (released June 16, 2016)

## 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 June 2016 STEO, EIA indicates that it **“expects production to rise only slightly through the rest of 2016 because of low natural gas prices and declining rig activity. In 2017, production is expected to rise in response to forecast price increases and increases in liquefied natural gas (LNG) exports. Overall, EIA expects production to rise by 1.0% in 2016 and by 2.3% in 2017. EIA expects natural gas exports by pipeline to Mexico will increase because of growing demand from Mexico’s electric power sector and flat natural gas production in Mexico. EIA projects LNG gross exports will rise to an average of 0.5 Bcf/d in 2016, with the startup of Cheniere’s Sabine Pass LNG liquefaction plant in Louisiana, which sent out its first cargo in February 2016. EIA projects gross LNG exports will average 1.3 Bcf/d in 2017, as Sabine Pass ramps up its capacity.”**<sup>10</sup>

## National Security

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

<sup>10</sup> EIA, *STEO* (June 2016) at 8.

<sup>11</sup> The Department of Homeland Security (“DHS”) issued a new bulletin on June 15, 2016. In particular, DHS indicates that since issuing the first Bulletin in December 2015, concerns that violent extremists could

## Future Natural Gas Prices

The PGC rate of roughly \$0.48 per therm for June 2016 is up 16.5 percent from the previous month, and is down 17.2 percent compared to the same period a year ago.<sup>12</sup> The July 2016 PGC (assuming that the commodity market adjustment factor is zero) should be around \$0.44 per therm, based, in part, on the expectation that near-term NYMEX futures prices continue to trade between \$0.24 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).

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be inspired to conduct attacks inside the U.S. have not diminished. Though DHS knows of no intelligence that is both specific and credible at this time of a plot by terrorist organizations to attack the homeland, the reality is terrorist-inspired individuals have conducted, or attempted to conduct, attacks in the United States. DHS is especially concerned that terrorist-inspired individuals and homegrown violent extremists may be encouraged or inspired to target public events or places. As seen in the attacks in San Bernardino, Paris, Brussels, and, most recently, Orlando, terrorists will consider a diverse and wide selection of targets for attacks. Terrorist use of the Internet to inspire individuals to violence or join their ranks remains a major source of concern. In the current environment, DHS is also concerned about threats and violence directed at particular communities and individuals across the country, based on perceived religion, ethnicity, nationality or sexual orientation. DHS and the FBI continue to provide guidance to state and local partners on increased security measures. The public may observe an increased law enforcement and security presence across communities, in public places and at events in the months ahead. This may include additional restrictions and searches on bags, more K-9 teams, and the use of screening technologies. The FBI is investigating potential terrorism-related activities associated with this broad threat throughout the United States. Federal, state, and local authorities are coordinating numerous law enforcement actions and conducting community outreach to address this evolving threat. Accordingly, increased public vigilance and awareness continue to be of utmost importance. This bulletin has a five-month duration and will expire just before the holiday season. DHS will reassess the threats of terrorism at that time. The National Terrorism Advisory System, or NTAS, replaces the color-coded Homeland Security Advisory System.

<sup>12</sup> The commodity market adjustment factor for the June 2016 PGC was \$0.07 per therm, resulting in the adjusted PGC (excluding the commodity market adjustment factor ("CMAF")) being equal to \$0.4057 per therm.

# Wholesale Natural Gas Price/Supply Assessment Information

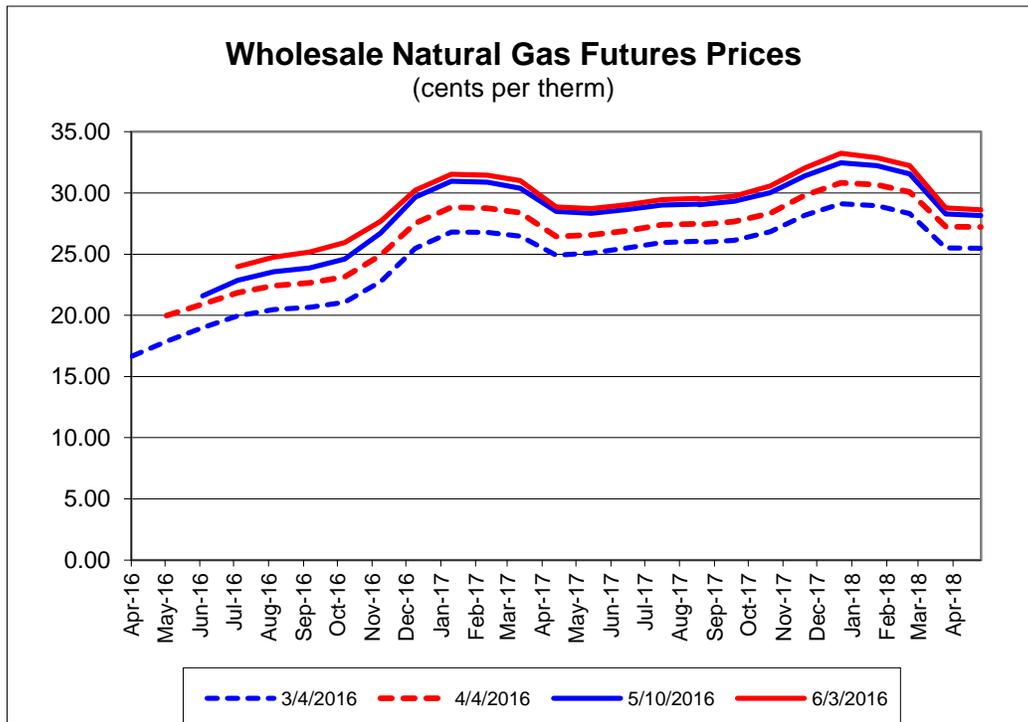
Current for June 3, 2016

## Price Information

Twelve Month NYMEX Strip Components  
6/3/16, cents per therm

Henry Hub Spot Market Price  
6/3/16, cents per therm

<u>Current Month</u>	<u>Previous Month</u>	<u>Current Only Available</u>
Jul 16 23.98	Jul 16 22.85	23.1
Aug 16 24.76	Aug 16 23.55	
Sep 16 25.17	Sep 16 23.88	
Oct 16 25.95	Oct 16 24.59	
Nov 16 27.70	Nov 16 26.72	
Dec 16 30.24	Dec 16 29.65	
Jan 17 31.52	Jan 17 30.96	
Feb 17 31.46	Feb 17 30.89	
Mar 17 31.01	Mar 17 30.39	
Apr 17 28.86	Apr 17 28.50	
May 17 28.72	May 17 28.35	
Jun 17 29.05	Jun 17 28.65	



The current PGC for June 2016 is about \$0.48 per therm. Assuming, among other things, that near-term futures prices remain around \$0.24 to \$0.28 per therm, the PGC rate (excluding the commodity market adjustment factor) for July 2016 may be around \$0.44 per therm. However, given the uncertainty about the weather, as well as other factors, this assessment could easily change. The assessment for June 2016 is that wholesale prices may remain around \$0.30 per therm, or less, resulting in wholesale prices that are lower by about 10 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 June 20, 2016

Factors	Next 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.