

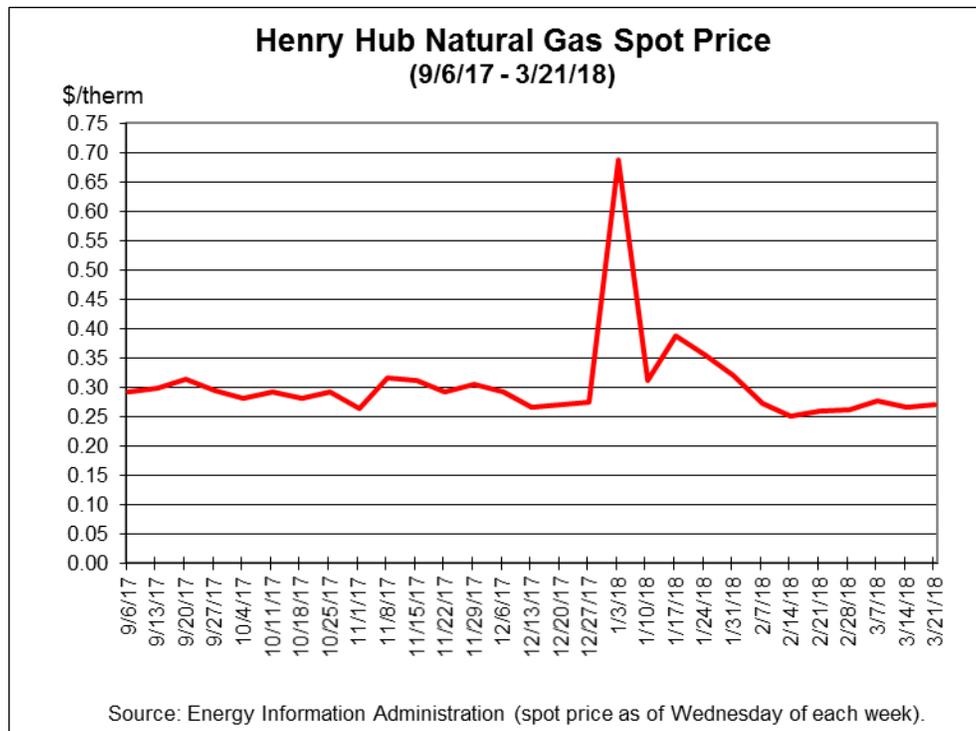
WHOLESALE NATURAL GAS MARKET ASSESSMENT

Wholesale Natural Gas Futures Prices as of March 19, 2018

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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 March 19, 2018.¹ 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 April 2018 (see Henry Hub Spot Price figure). Recent natural gas spot prices are down at least 8 percent from prices for the same period a year ago.



Data from the Energy Information Administration ("EIA") indicates that the average Henry Hub natural gas spot price for February 2018 was about \$0.27 per therm, down significantly from the \$0.39 per therm in January 2018.² EIA expects natural gas prices, on average, to be fairly stable over the forecast period despite new natural gas export capabilities and growing domestic natural gas consumption. Henry Hub natural gas prices averaged about \$0.30 per therm in 2017 and the forecasted price is expected to average \$0.30 per therm in 2018 and \$0.31 per therm in 2019.³

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, *Natural Gas Weekly Update* (various issues).

³ EIA, *Short-Term Energy Outlook* (March 2018) at 2.

As of March 16, 2018, natural gas in storage stood at 1,446 billion cubic feet (“Bcf”). The working gas in storage is down about 32 percent from the same period a year ago, and is down by over 18 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 higher 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 March 2018 is 43.67 cents (\$0.44) per therm, compared with 53.24 cents (\$0.53) per therm for the same period a year ago—down about 18 percent. The PGC for March 2018 was down by 14 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 March 15, 2018, the National Oceanic and Atmospheric Administration (“NOAA”) indicated that its outlook for April 2018 favors above normal temperatures for the southern half and eastern third of the nation.⁵ Below normal temperatures are likely from Washington and eastward across the Northern Rockies, the Northern Plains, and much of the upper Mississippi Valley. The expected weather for April may generally be neutral 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”) raised its target range for short-term interest rates to a still relatively low 1-1/2 to 1-3/4 percent.⁶ **“Information received since the [FOMC] met in January indicates that the labor market has continued to strengthen and that economic activity has been rising at a moderate rate. Job gains have been strong in recent months, and the unemployment rate has stayed low[– at 4.1 percent in February 2018 compared to 4.7 for the same month a year ago]. Recent data suggest that growth rates of household spending and business fixed investment have moderated from their strong fourth-quarter readings. On a 12-month basis, both overall inflation and inflation for items other than food and energy have continued to run below 2 percent.”**⁷ Thus, at present, the current state of economic activity may still be relatively neutral for natural gas prices.

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/>.

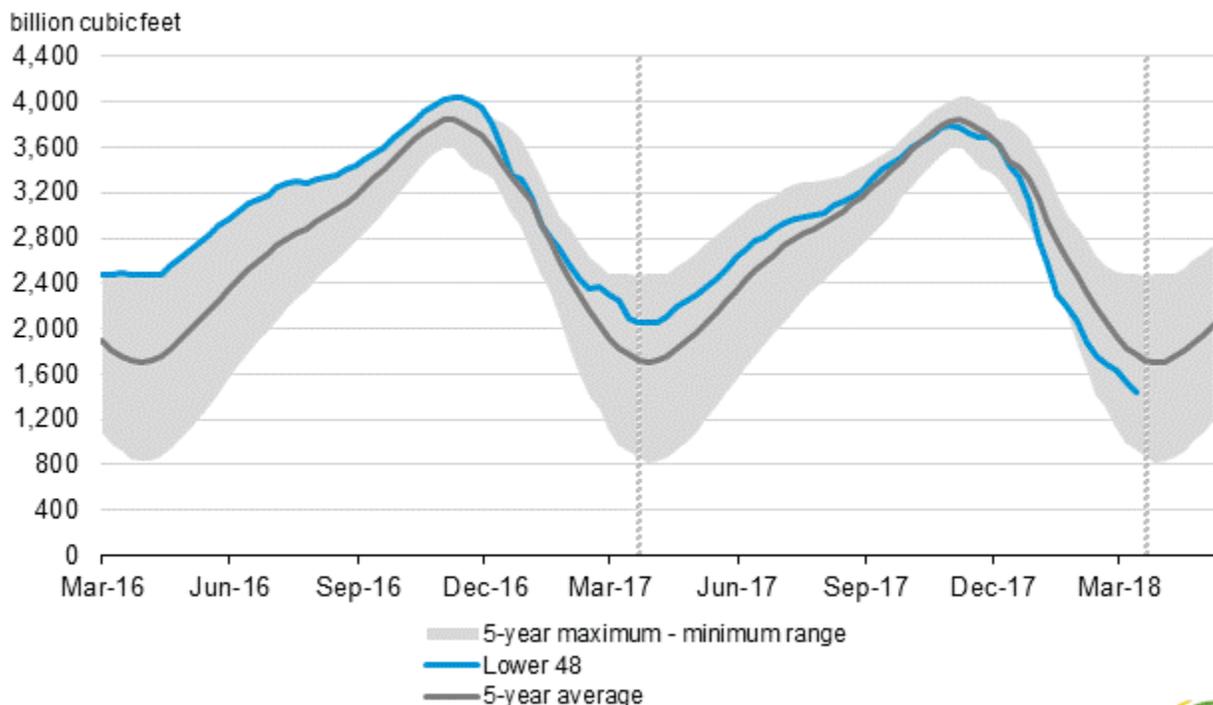
⁶ Statement of the Federal Open Market Committee (released March 21, 2018).

⁷ Ibid.

Storage

EIA reports that the working gas in storage was 1,446 Bcf as of March 16, 2018, a net decrease of 86 Bcf from the previous week. Stocks were 667 Bcf lower than the same period a year ago—down 31.6 percent—and down 329 Bcf from the 5-year average of 1,775 Bcf—a decrease of 18.5 percent.⁸ The warmer weather expected in the southern and eastern portions of the nation may contribute to less storage withdrawals. Thus, the current storage picture tends to be neutral or providing some downward pressure on natural gas prices at this time.

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 2013 through 2017. The dashed vertical lines indicate current and year-ago weekly periods.

Source: EIA, *Weekly Natural Gas Storage Report* (released March 22, 2018)

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 March 2018 STEO, EIA notes that **“U.S. dry natural gas production averaged 73.6 billion cubic feet per day (Bcf/d) in 2017. EIA forecasts that natural gas production will average 81.7 Bcf/d in 2018, establishing a new record. That level would be 8.1 Bcf/d higher than the 2017 level and the highest annual average growth on record. EIA expects natural gas production will also increase in 2019, with forecast growth of 1.0 Bcf/d.”**⁹

⁸ EIA, *Weekly Natural Gas Storage Report* (released March 22, 2018).

⁹ EIA, *STEO* (March 2018) at 1.

National Security

As noted in previous reports, we see little danger to the natural gas supply.¹⁰ 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 \$0.44 per therm for March 2018 is down 14.3 percent from the previous month, and is down 18.0 percent compared to the same period a year ago.¹¹ The April 2018 PGC (assuming that the commodity market adjustment factor is zero) may be around \$0.43 per therm, based, in part, on the expectation that near-term NYMEX futures prices trade between \$0.25 and \$0.29 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).

¹⁰ The Department of Homeland Security ("DHS") issued its last advisory bulletin on November 9, 2017, which highlighted the continuing threat from homegrown terrorists, many of whom are inspired online to violence by foreign terrorist organizations. The bulletin went on to indicate that an informed, vigilant, and engaged public remains one of the greatest assets to identify potential homegrown terrorists and prevent attacks. The National Terrorism Advisory System, or NTAS, replaces the color-coded Homeland Security Advisory System.

¹¹ The commodity market adjustment factor for the March 2018 PGC was \$0.02 per therm, resulting in the adjusted PGC (excluding the commodity market adjustment factor ("CMAF")) being equal to \$0.4167 per therm.

Wholesale Natural Gas Price/Supply Assessment Information

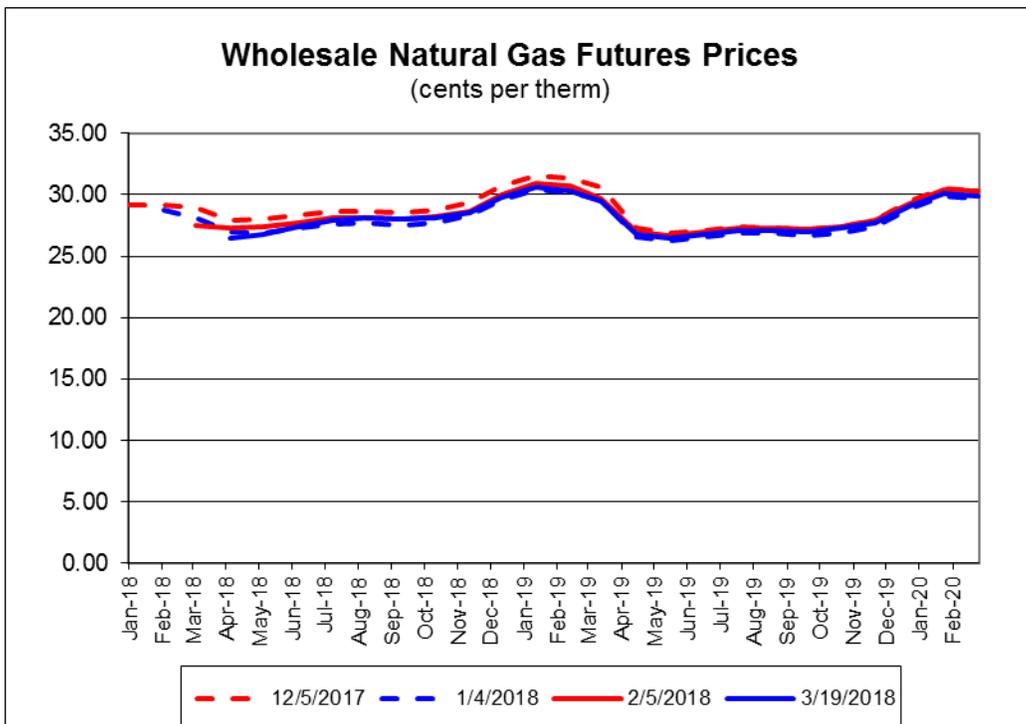
Current for March 19, 2018

Price Information

Twelve Month NYMEX Strip Components
3/19/18, cents per therm

Henry Hub Spot Market Price
3/19/18, cents per therm

<u>Current Month</u>	<u>Previous Month</u>	<u>Current Only Available</u>
Apr 18 26.51	Apr 18 27.26	26.3
May 18 26.78	May 18 27.37	
Jun 18 27.36	Jun 18 27.72	
Jul 18 27.95	July 18 28.13	
Aug 18 28.13	Aug 18 28.15	
Sep 18 27.98	Sep 18 27.99	
Oct 18 28.10	Oct 18 28.22	
Nov 18 28.59	Nov 18 28.68	
Dec 18 29.80	Dec 18 30.04	
Jan 19 30.66	Jan 19 30.98	
Feb 19 30.36	Feb 19 30.69	
Mar 19 29.45	Mar 19 29.66	



The current PGC for March 2018 is about \$0.44 per therm. Assuming, among other things, that near-term futures prices are around \$0.25 to \$0.29 per therm, the PGC rate (excluding the commodity market adjustment factor) for April 2018 may remain around \$0.43 per therm. However, given the uncertainty about the weather, as well as other factors, this assessment could easily change. The assessment for April 2018 is that wholesale prices may remain around \$0.30 per therm, or less, resulting in wholesale prices that are somewhat lower 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
March 26, 2018

Factors	Next Month	Winter Season
Oil Prices	Yellow	Yellow
Weather - Temperature	Yellow	Red
Weather - Hurricanes	No color - Not Applicable	No color - Not Applicable
Economic Conditions	Yellow	Yellow
Storage	Yellow	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.