

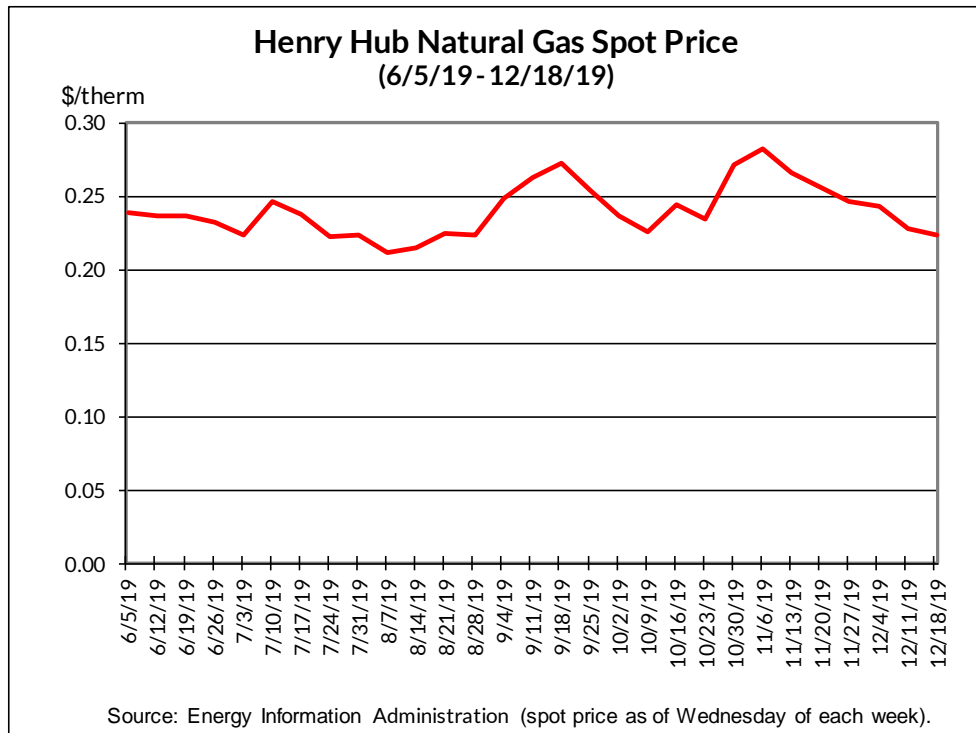
WHOLESALE NATURAL GAS MARKET ASSESSMENT

Wholesale Natural Gas Futures Prices as of December 5, 2019

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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 December 5, 2019.¹ OTRA's current assessment of the natural gas market suggests that wholesale natural gas prices may remain below \$0.25 per therm during January 2020 (see Henry Hub Spot Price figure). Recent natural gas spot prices are more than 30 percent lower than 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 November 2019 was about \$0.26 per therm, up from \$0.23 per therm in October 2019.² EIA expects natural gas prices, on average, to experience some downward pressure on prices, despite a slowdown in natural gas production, as drilling activity adjusts to prices.³ Henry Hub natural gas prices averaged about \$0.32 per therm in 2018 and the price is expected to average \$0.26 per therm in

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* (December 2019) at 2.

2019 and about \$0.25 per therm in 2020.⁴ As of December 13, 2019, natural gas in storage stood at 3,411 billion cubic feet (“Bcf”). The working gas in storage is up over 22 percent from the same period a year ago, but is down by less than 1 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”).⁵ The PGC for December 2019 is 47.58 cents (\$0.48) per therm, compared with 50.91 cents (\$0.51) per therm for the same period a year ago—down roughly 7 percent. The PGC for December 2019 is up about 4 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 December 19, 2019, the National Oceanic and Atmospheric Administration (“NOAA”) indicated that its outlook for January 2020 favors below normal temperatures across the northern tier of the nation from western Montana to the Northeast/Upper Mid-Atlantic regions.⁶ Above normal temperatures are likely for the Pacific Northwest, northern portions of California and Nevada, the western portion of Idaho, and southern Florida. The expected weather for January may be relatively neutral for natural gas prices.

Economic Conditions

National economic factors also contribute to the formation of wholesale natural gas prices. The Federal Open Market Committee (“FOMC”) maintained its target range for short-term interest rates at 1-1/2 to 1-3/4 percent. The FOMC indicated that “[i]nformation received since the Federal Open Market Committee met in October indicates that the labor market remains strong and that economic activity has been rising at a moderate rate. Job gains have been solid, on average, in recent months, and the unemployment rate has remained low. Although household spending has been rising at a strong pace, business fixed investment and exports remain weak. On a 12-month basis, overall inflation and inflation for items other than food and energy are running below 2 percent. Market-based measures of inflation compensation remain

⁴ EIA, *Short-Term Energy Outlook* (December 2019) at 2.

⁵ 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.

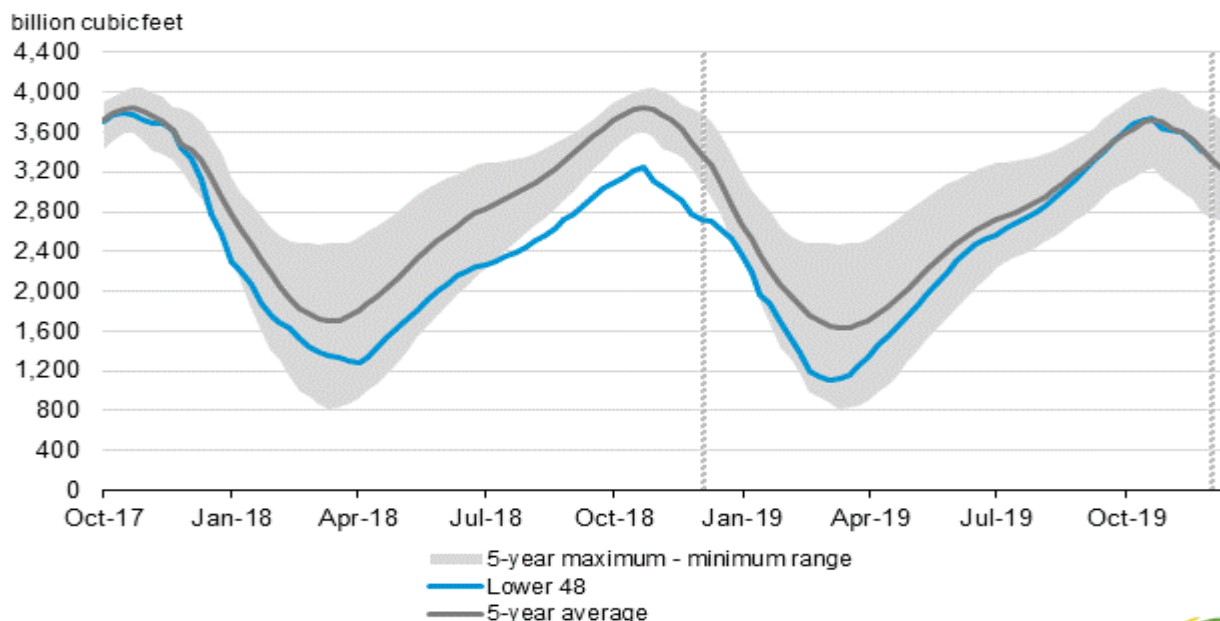
⁶ NOAA at <http://www.cpc.ncep.noaa.gov/>.

low; survey-based measures of longer-term inflation expectations are little changed.”⁷ Thus, the current state of economic activity appears to remain relatively neutral for natural gas prices.

Storage

EIA reports that the working gas in storage was 3,411 Bcf as of December 13, 2019, a net decrease of 107 Bcf from the previous week. Stocks were 618 Bcf higher than the same period a year ago—up 22.1 percent—and down 9 Bcf from the 5-year average of 3,420 Bcf—a decrease of 0.3 percent.⁸

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 2014 through 2018. The dashed vertical lines indicate current and year-ago weekly periods.

Source: EIA, *Weekly Natural Gas Storage Report* (released December 19, 2019)

In its December 2019 Short-Term Energy Outlook, EIA expects storage withdrawals to total 1.9 trillion cubic feet (“Tcf”) from the end of October to the end of March, which is less than the five-year average winter withdrawal.⁹ EIA goes on to note that a withdrawal of this amount would leave the end-of-March inventories at almost 1.9 Tcf, roughly 8% higher than the five-year (2015–19) average.¹⁰ The current storage picture supports some downward pressure on natural gas prices.

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

⁷ Statement of the Federal Open Market Committee (released December 11, 2019).

⁸ EIA, *Weekly Natural Gas Storage Report* (released December 19, 2019).

⁹ EIA, *STEO* (December 2019) at 2.

¹⁰ *Ibid.*

the December 2019 Short-Term Energy Outlook (“STEO”), EIA expects that “dry natural gas production will average 92.1 billion cubic feet per day (Bcf/d) in 2019, up 10% from 2018. EIA expects that natural gas production will grow much less in 2020 because of the lag between changes in price and changes in future drilling activity. Low prices in the third quarter of 2019 will reduce natural gas-directed drilling in the first half of 2020. EIA forecasts natural gas production in 2020 will average 95.1 Bcf/d.”¹¹ Continued relatively high natural gas production will help improve the working gas in storage, which contributes to downward pressure on natural gas prices.

National Security

As noted in previous reports, we see little danger to the natural gas supply.¹² 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 December 2019 is up 3.7 percent from the previous month, and is down 6.5 percent compared to the same period a year ago.¹³ The January 2020 PGC (assuming that the commodity market adjustment factor is zero) may settle around \$0.44 per therm, based, in part, on the expectation that near-term NYMEX futures prices trade between \$0.22 and \$0.25 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 Ibid at 2.

¹² The Department of Homeland Security (“DHS”) last issued an advisory bulletin on July 18, 2019. The bulletin mentioned, among other things, threats such as foreign terrorist organizations exploiting the internet to inspire, enable, or direct individuals to commit terrorist acts. In addition, terrorist groups are urging recruits to adopt easy-to-use tools to target public places and events. 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.

¹³ The commodity market adjustment factor for the December 2019 PGC was \$0.03 per therm, resulting in the adjusted PGC (excluding the commodity market adjustment factor (“CMAF”)) being equal to \$0.4458 per therm.

Wholesale Natural Gas Price/Supply Assessment Information

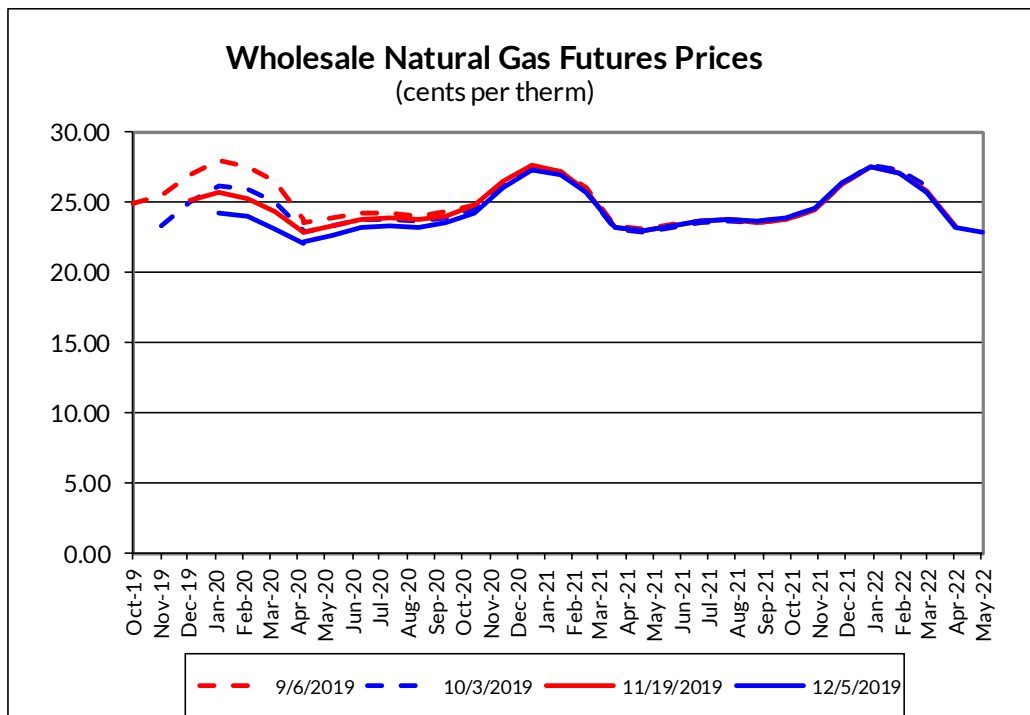
Current for December 5, 2019

Price Information

Twelve Month NYMEX Strip Components
12/5/19, cents per therm

Henry Hub Spot Market Price
12/5/19, cents per therm

	<u>Current Month</u>	<u>Previous Month</u>	<u>Current Only Available</u>
Jan 20	24.27	Jan 20 25.76	24.2
Feb 20	23.98	Feb 20 25.29	
Mar 20	23.12	Mar 20 24.35	
Apr 20	22.11	Apr 20 22.91	
May 20	22.19	May 20 22.82	
Jun 20	22.67	Jun 20 23.27	
Jul 20	23.18	Jul 20 23.78	
Aug 20	23.32	Aug 20 23.90	
Sep 20	23.18	Sep 20 23.77	
Oct 20	23.49	Oct 20 24.04	
Nov 20	24.26	Nov 20 24.75	
Dec 20	26.05	Dec 20 26.46	



The current PGC for December 2019 is about \$0.4758 per therm. Assuming, among other things, that near-term futures prices are around \$0.22 to \$0.25 per therm, the PGC rate (excluding the commodity market adjustment factor) for January 2020 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 January 2020 is that wholesale prices may remain below \$0.25 per therm, resulting in wholesale prices that are at least 30 percent 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 December 23, 2019

Factors	Next Month	Winter 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 - N.A.
Not Applicable