

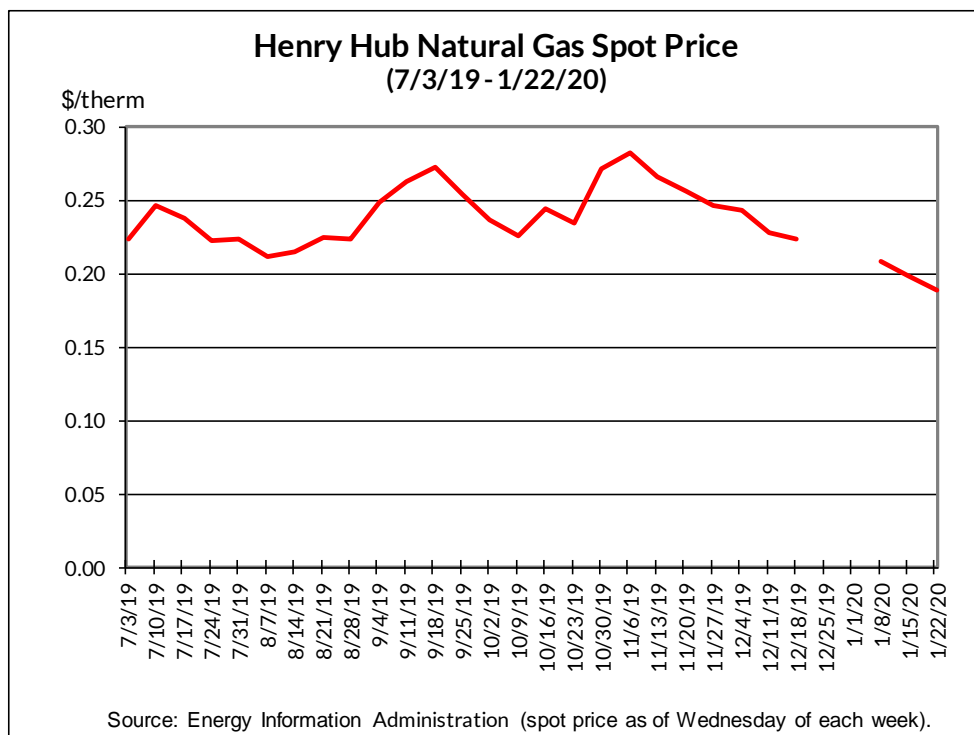
WHOLESALE NATURAL GAS MARKET ASSESSMENT

Wholesale Natural Gas Futures Prices as of January 6, 2020

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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 January 6, 2020.¹ OTRA's current assessment of the natural gas market suggests that wholesale natural gas prices may remain below \$0.25 per therm during February 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 December 2019 was about \$0.22 per therm, down from \$0.26 per therm in November 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. Henry Hub natural gas prices averaged about \$0.26 per therm in 2019 and the price is expected to average \$0.23 per therm in 2020 and about \$0.25 per therm in 2021.³ As of January 24, 2020, natural gas 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* (January 2020) at 12.

storage stood at 2,746 billion cubic feet (“Bcf”). The working gas in storage is up over 24 percent from the same period a year ago, and is up almost 8 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”).⁴ The PGC for January 2020 is 47.58 cents (\$0.48) per therm, compared with 56.09 cents (\$0.56) per therm for the same period a year ago—down roughly 15 percent. The PGC for January 2020 is unchanged 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 January 16, 2020, the National Oceanic and Atmospheric Administration (“NOAA”) indicated that its outlook for February 2020 favors above normal temperatures from the central and southern portions of the West, across the southern tier of the nation and the East Coast states.⁵ Below normal temperatures are likely for the northern Great Plains, the Upper Mississippi Valley, and the western half of the Great Lakes. The expected weather for February 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 Reserve’s Beige Book provides anecdotal information on current economic conditions from various regions—twelve Federal Reserve Districts—in the nation.⁶ The report indicated that, based on information collected on or before January 6, 2020, economic activity generally continued to expand modestly in the final six weeks of 2019. Consumer spending was indicated to have grown at a modest pace, with a number of regions noting some pickup from the prior reporting period. On balance, holiday sales were said to be solid, with several Districts noting the growing importance of online shopping. Vehicle sales generally expanded moderately, though a handful of regions reported flat sales. Manufacturing activity was essentially flat in most Districts, as in the previous report. Home sales trends varied widely across regions but were flat overall, while residential rental markets strengthened. Some Districts pointed to low inventories as restraining home sales. New residential construction expanded moderately.

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/>.

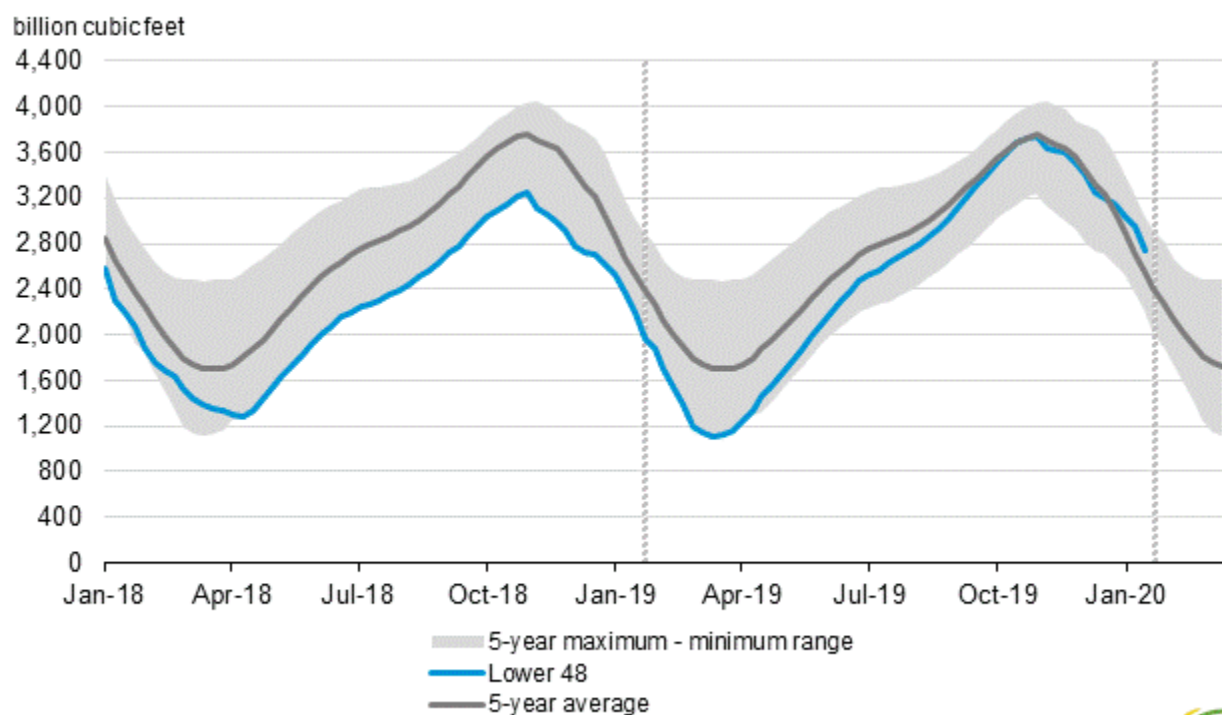
⁶ Beige Book (released January 15, 2020).

Commercial real estate activity varied substantially across regions. In many Districts, tariffs and trade uncertainty continued to weigh on some businesses. Expectations for the near-term outlook remained modestly favorable across the nation. 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 2,746 Bcf as of January 24, 2020, a net decrease of 201 Bcf from the previous week. Stocks were 524 Bcf higher than the same period a year ago—up 23.6 percent—and up 193 Bcf from the 5-year average of 2,553 Bcf—an increase of 7.6 percent.⁷

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 2015 through 2019. The dashed vertical lines indicate current and year-ago weekly periods.

Source: EIA, *Weekly Natural Gas Storage Report* (released January 30, 2020)

In its January 2020 Short-Term Energy Outlook, EIA indicates that “[b]ased on an assumption of milder winter temperatures in the first quarter of 2020, along with a forecast of growing natural gas production, EIA forecasts that total inventories will be 1,807 Bcf at the end of March, which would be 5% higher than the five-year average for that time of year. For the 2020 storage injection season, EIA expects injections will exceed the five-year average rate as production outpaces consumption and exports from the end of March through October. EIA expects that inventories will reach 4,016 Bcf at the end of October 2020, which would be 7% higher than the previous five-year

⁷ EIA, *Weekly Natural Gas Storage Report* (released January 30, 2020).

average for the end of October and 7% higher than at the end of October 2019.”⁸ 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 the January 2020 Short-Term Energy Outlook (“STEO”), EIA expects that **“dry natural gas production in the United States will average 94.7 Bcf/d in 2020, up 2.9% from 2019. In 2021, EIA’s forecast production declines by 0.7% to an average of 94.1 Bcf/d for the year. EIA’s expected growth in natural gas production for 2020 is largely in response to improved drilling efficiency and cost reductions, higher associated gas production from oil-directed rigs, and increased takeaway pipeline capacity from the Appalachian and Permian production regions. Forecast natural gas production growth is also supported by planned expansions in liquefied natural gas (LNG) capacity and increased pipeline exports to Mexico. The decline in natural gas production in 2021 is in response to a forecast of low natural gas spot prices in 2020 that reduces drilling activity in the Appalachian Basin.”**⁹ 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.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 \$0.48 per therm for January 2020 is unchanged from the previous month, and is down 15.2 percent compared to the same period a year ago.¹¹ The February 2020 PGC (assuming that the commodity market adjustment factor is zero) may settle around \$0.43 per therm, based, in part, on the expectation that near-term NYMEX futures prices trade between \$0.21 and \$0.23 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.

⁸ EIA, *STEO* (January 2020) at 12.

⁹ *Ibid* at 11.

¹⁰ The Department of Homeland Security (“DHS”) last issued an advisory bulletin on January 18, 2020. 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. 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 January 2020 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.

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).

Wholesale Natural Gas Price/Supply Assessment Information

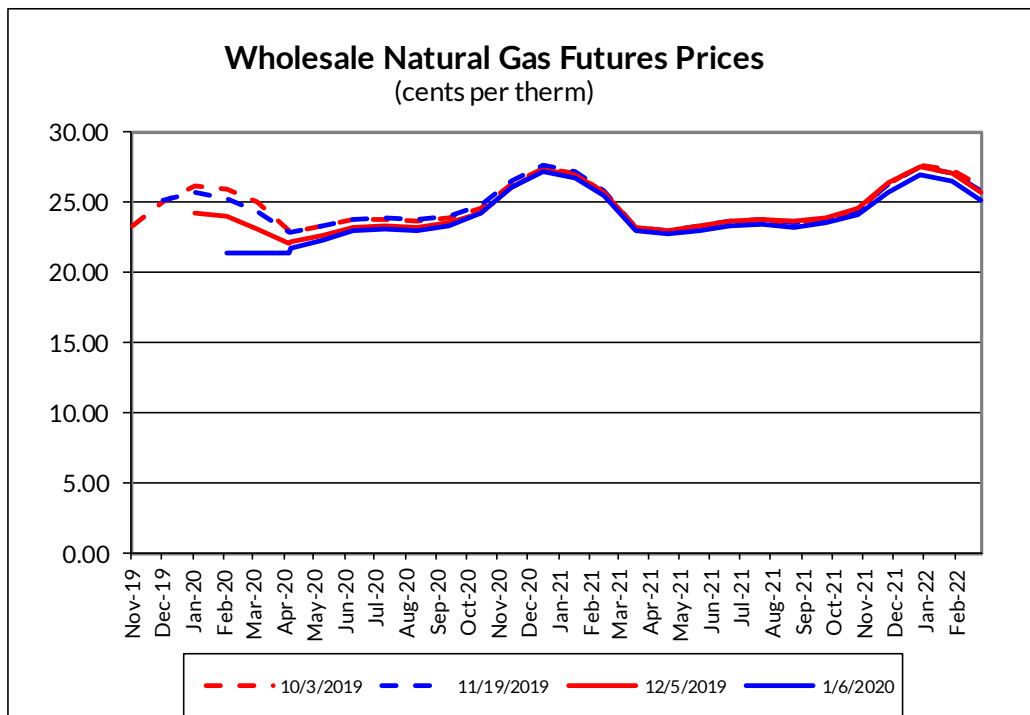
Current for January 6, 2020

Price Information

Twelve Month NYMEX Strip Components
1/6/20, cents per therm

Henry Hub Spot Market Price
1/6/20, cents per therm

	<u>Current Month</u>	<u>Previous Month</u>	<u>Current Only Available</u>
Feb 20	21.35	Feb 20 23.98	21.0
Mar 20	21.34	Mar 20 23.12	
Apr 20	21.35	Apr 20 22.11	
May 20	21.76	May 20 22.19	
Jun 20	22.34	Jun 20 22.67	
Jul 20	22.93	Jul 20 23.18	
Aug 20	23.10	Aug 20 23.32	
Sep 20	23.03	Sep 20 23.18	
Oct 20	23.35	Oct 20 23.49	
Nov 20	24.21	Nov 20 24.26	
Dec 20	26.08	Dec 20 26.05	
Jan 21	27.19	Jan 21 27.31	



The current PGC for January 2020 is about \$0.4758 per therm. Assuming, among other things, that near-term futures prices are around \$0.21 to \$0.23 per therm, the PGC rate (excluding the commodity market adjustment factor) for February 2020 may be 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 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 January 24, 2020

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