

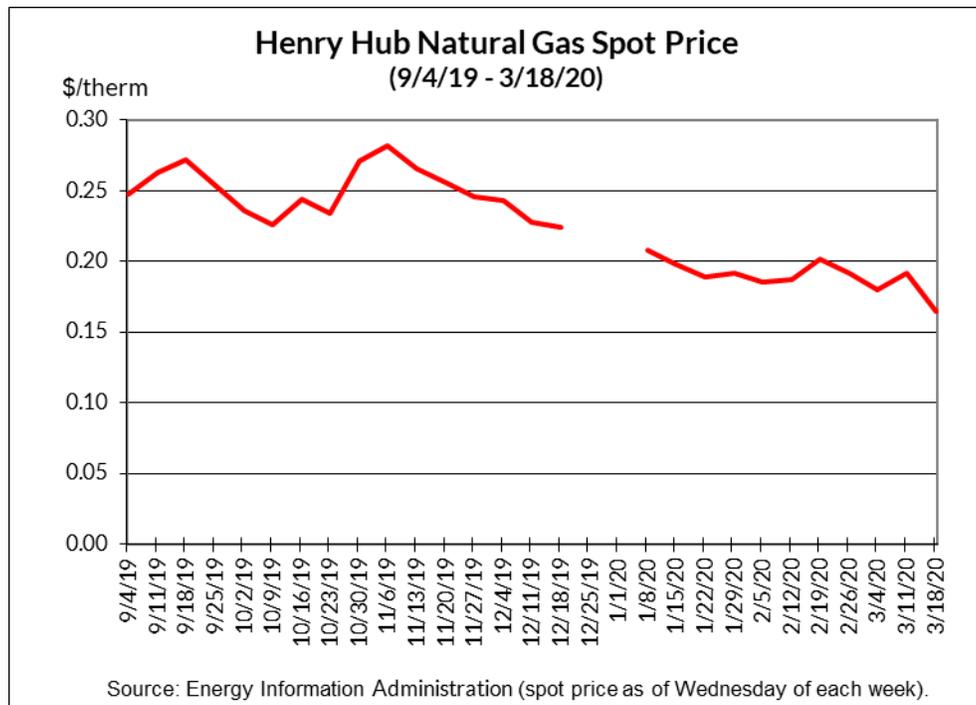
WHOLESALE NATURAL GAS MARKET ASSESSMENT

Wholesale Natural Gas Futures Prices as of March 13, 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 March 13, 2020.¹ OTRA's current assessment of the natural gas market suggests that wholesale natural gas prices may remain around, or below, \$0.20 per therm during April 2020 (see Henry Hub Spot Price figure). Recent natural gas spot prices are at least 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 February 2020 was about \$0.19 per therm, down from \$0.20 per therm in January 2020.² EIA notes that warmer-than-normal temperatures in February reduced demand for space heating and put downward pressure on prices. But EIA expects that prices will begin to rise in the second quarter of 2020 as U.S. natural gas production declines and natural gas use for power generation increases the demand for natural gas. Henry Hub natural gas prices averaged about \$0.26 per therm in 2019 and the price is expected to average \$0.21 per therm in 2020 and about

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).

\$0.25 per therm in 2021.³ As of March 13, 2020, natural gas in storage stood at 2,034 billion cubic feet (“Bcf”). The working gas in storage is up about 76 percent from the same period a year ago and is up 16 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 March 2020 is 37.17 cents (\$0.37) per therm, compared with 51.48 cents (\$0.51) per therm for the same period a year ago—down roughly 28 percent. The PGC for March 2020 is also down 10 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 19, 2020, the National Oceanic and Atmospheric Administration (“NOAA”) indicated that its outlook through April 2020 favors above normal temperatures for the eastern half of the nation.⁵ Below normal temperatures may be likely for the Northern Great Plains. The expected weather for April 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”) lowered its target range for short-term interest rates to 0 to 1/4 percent. The FOMC indicated that “[t]he coronavirus outbreak has harmed communities and disrupted economic activity in many countries, including the United States. Global financial conditions have also been significantly affected. Available economic data show that the U.S. economy came into this challenging period on a strong footing. Information received since the Federal Open Market Committee met in January indicates that the labor market remained strong through February and economic activity rose at a moderate rate. Job gains have been solid, on average, in recent months, and the unemployment rate has remained low. Although household spending rose at a moderate pace, business fixed investment and exports remained weak. More recently, the energy sector has come under stress. On a 12-month basis, overall inflation and inflation for items other than food and energy are running below 2 percent.... The Committee expects to maintain this target range until it

³ EIA, *Short-Term Energy Outlook* (March 2020) at 2.

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.

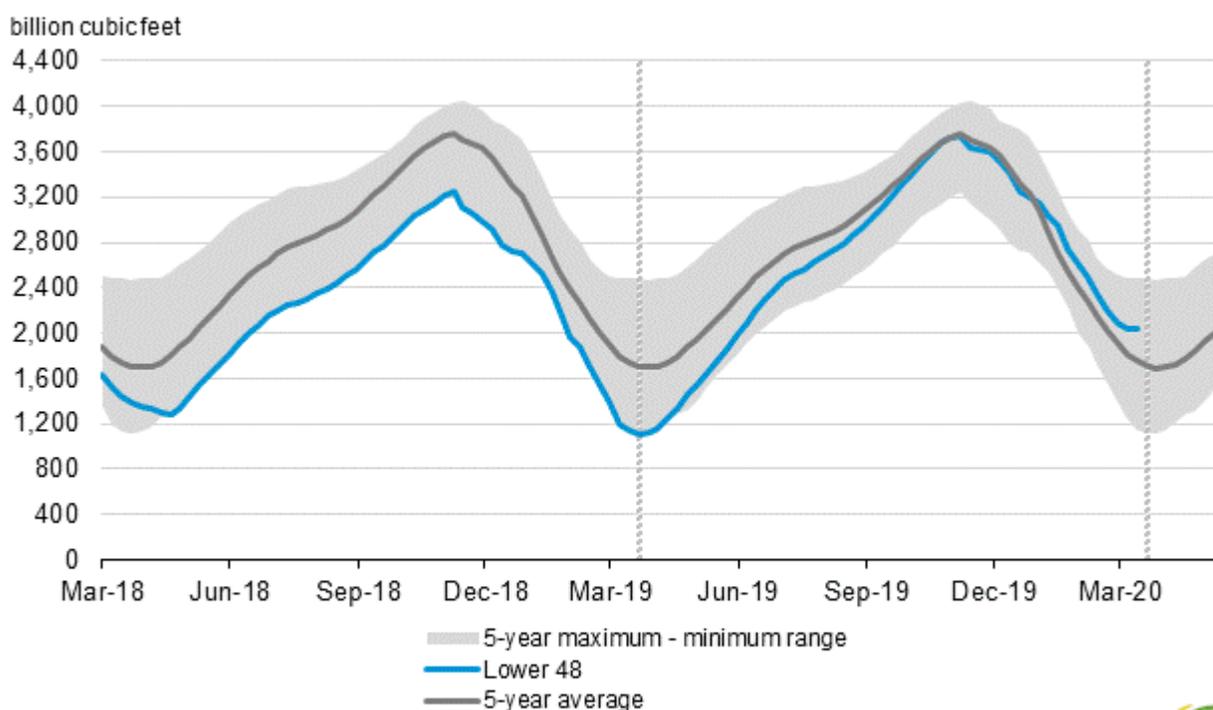
⁵ NOAA at <http://www.cpc.ncep.noaa.gov/>.

is confident that the economy has weathered recent events and is on track to achieve its maximum employment and price stability goals. This action will help support economic activity, strong labor market conditions, and inflation returning to the Committee's symmetric 2 percent objective.”⁶ 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 2,034 Bcf as of March 13, 2020, a net decrease of 9 Bcf from the previous week. Stocks were 878 Bcf higher than the same period a year ago—up 76.0 percent—and up 281 Bcf from the 5-year average of 1,753 Bcf—an increase of 16.0 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 March 19, 2020)

EIA expects natural gas in storage to build at a rate close to the five-year average during the upcoming injection season, April through October, and forecasts that natural gas in storage will end October at almost 4.0 trillion cubic feet, 6 percent more than the five-year average.⁸ The current storage picture supports some downward pressure on natural gas prices.

⁶ Statement of the Federal Open Market Committee (released March 15, 2020).

⁷ EIA, *Weekly Natural Gas Storage Report* (released March 19, 2020).

⁸ EIA, *Short-Term Energy Outlook* (March 2020) at 7.

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 2020 Short-Term Energy Outlook ("STEO"), EIA forecasts that "dry natural gas production will average 95.3 [billion cubic feet per day (Bcf/d)] in 2020, a 3% increase from 2019, EIA expects monthly production to generally decline through 2020, falling from an estimated 96.5 Bcf/d in February to 92.3 Bcf/d in December. The falling production mostly occurs in the Appalachian and Permian regions. In the Appalachian region, low natural gas prices are discouraging producers from engaging in natural gas-directed drilling, and in the Permian region, low oil prices reduce associated gas output from oil-directed wells. In 2021, EIA forecasts dry natural gas production will rise from December 2020 levels in response to higher prices. Forecast dry natural gas production for 2021 averages 92.6 Bcf/d."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 \$0.37 per therm for March 2020 is down 9.8 percent from the previous month, and is down 27.8 percent compared to the same period a year ago.¹¹ The April 2020 PGC (assuming that the commodity market adjustment factor is zero) may be around \$0.36 per therm, based, in part, on the expectation that near-term NYMEX futures prices trade between \$0.15 and \$0.18 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

⁹ EIA, *Short-Term Energy Outlook* (March 2020) at 2.

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 March 2020 PGC was -\$0.03 per therm, resulting in the adjusted PGC (excluding the commodity market adjustment factor ("CMAF")) being equal to \$0.4017 per therm.

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

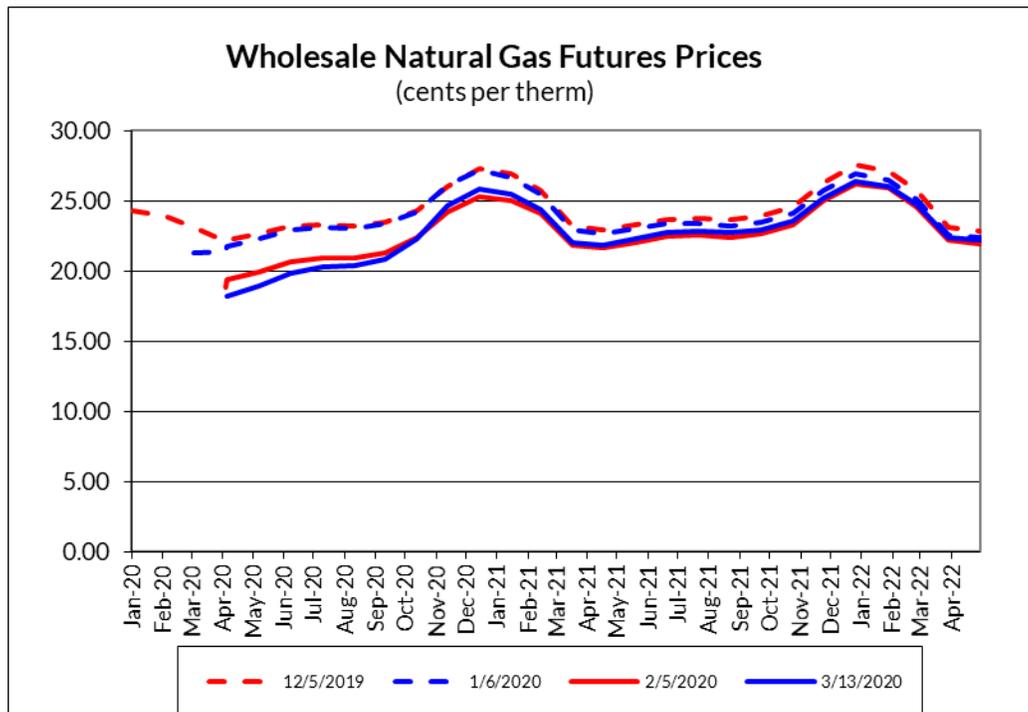
Current for March 13, 2020

Price Information

Twelve Month NYMEX Strip Components
3/13/20, cents per therm

Henry Hub Spot Market Price
3/13/20, cents per therm

| | <u>Current Month</u> | <u>Previous Month</u> | <u>Current Only Available</u> |
|--------|----------------------|-----------------------|-------------------------------|
| May 20 | 18.19 | May 20 19.37 | 19.5 |
| Jun 20 | 18.95 | Jun 20 19.97 | |
| Jul 20 | 19.87 | Jul 20 20.65 | |
| Aug 20 | 20.28 | Aug 20 20.97 | |
| Sep 20 | 20.41 | Sep 20 20.96 | |
| Oct 20 | 20.88 | Oct 20 21.31 | |
| Nov 20 | 22.34 | Nov 20 22.37 | |
| Dec 20 | 24.67 | Dec 20 24.23 | |
| Jan 21 | 25.81 | Jan 21 25.34 | |
| Feb 21 | 25.45 | Feb 21 25.01 | |
| Mar 21 | 24.40 | Mar 21 24.09 | |
| Apr 21 | 22.06 | Apr 21 21.85 | |



The current PGC for March 2020 is about \$0.3717 per therm. Assuming, among other things, that near-term futures prices are around \$0.15 to \$0.18 per therm, the PGC rate (excluding the commodity market adjustment factor) for April 2020 may be around \$0.36 per therm. However, given the uncertainty about the weather, as well as other factors, this assessment could easily change. The assessment for April 2020 is that wholesale prices may remain around \$0.20 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 March 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