

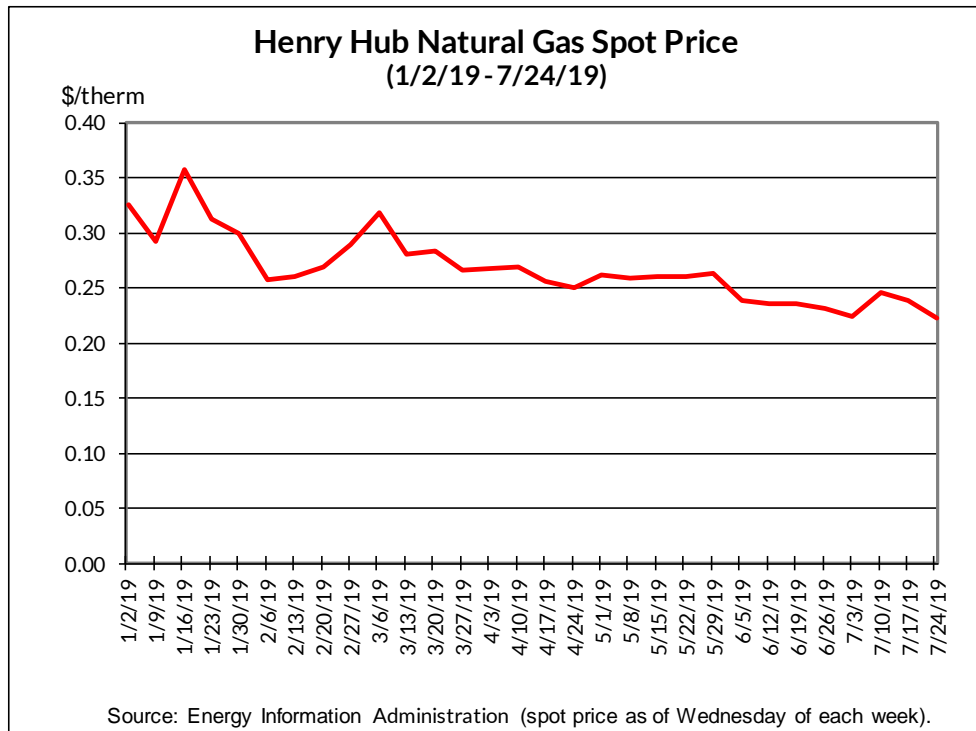
# WHOLESALE NATURAL GAS MARKET ASSESSMENT

## Wholesale Natural Gas Futures Prices as of July 24, 2019

by Roger Fujihara  
Office of Technical and Regulatory Analysis

### 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 July 24, 2019.<sup>1</sup> OTRA's current assessment of the natural gas market suggests that wholesale natural gas prices may remain below \$0.25 per therm during August 2019 (see Henry Hub Spot Price figure). Recent natural gas spot prices are more than 10 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 June 2019 was about \$0.24 per therm, down from \$0.26 per therm in May 2019.<sup>2</sup> EIA expects natural gas prices, on average, to experience some upward pressure on prices over the forecast period, due to a slowdown in natural gas production, reflecting lower forecasts of prices.<sup>3</sup> Henry Hub natural gas prices averaged about \$0.32 per therm in 2018 and the price is expected to average \$0.26

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

<sup>3</sup> EIA, *Short-Term Energy Outlook* (July 2019) at 12.

per therm in 2019 and \$0.28 per therm in 2020.<sup>4</sup> As of July 26, 2019, natural gas in storage stood at 2,634 billion cubic feet (“Bcf”). The working gas in storage is up over 14 percent from the same period a year ago, but is down by roughly 5 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”).<sup>5</sup> The PGC for July 2019 is 56.07 cents (\$0.56) per therm, compared with 42.05 cents (\$0.42) per therm for the same period a year ago—up roughly 33 percent. The PGC for July 2019 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 July 31, 2019, the National Oceanic and Atmospheric Administration (“NOAA”) indicated that its outlook for August 2019 favors above normal temperatures for the southern half of Texas, the Gulf Coast, Florida, parts of the Northeast and the Southwest, and the Pacific Northwest.<sup>6</sup> Below normal temperatures are likely for the Great Plains, with a higher probability for South Dakota, Nebraska, Iowa, and portions of Minnesota and Illinois. The expected weather for August may be relatively neutral for natural gas prices.

As noted in an earlier Outlook, on May 23, 2019, NOAA’s Climate Prediction Center released its forecast for the 2019 Atlantic Hurricane Season. NOAA indicates that there is a 70 percent chance of a near-normal to above-normal season. In particular, NOAA predicts a 70-percent likelihood of 9 to 15 named storms, of which 4 to 8 could develop into hurricanes. About 2 to 4 of the potential hurricanes could become major hurricanes (Category 3 or higher), with winds of 111 miles per hour or more. An average hurricane season typically yields 12 named storms, of which 6 become hurricanes, including 3 major hurricanes. As of July 31, 2019, there has been only two named storm, with only one that turned into a hurricane, which was not a major hurricane. The Atlantic hurricane season generally runs from June 1 through November 30. Any significant storm-related disruption to the energy infrastructure—in the Gulf of Mexico, for example—can contribute to upward pressure on natural gas prices.

---

<sup>4</sup> EIA, *Short-Term Energy Outlook* (July 2019) at 14.

<sup>5</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>6</sup> NOAA at <http://www.cpc.ncep.noaa.gov/>.

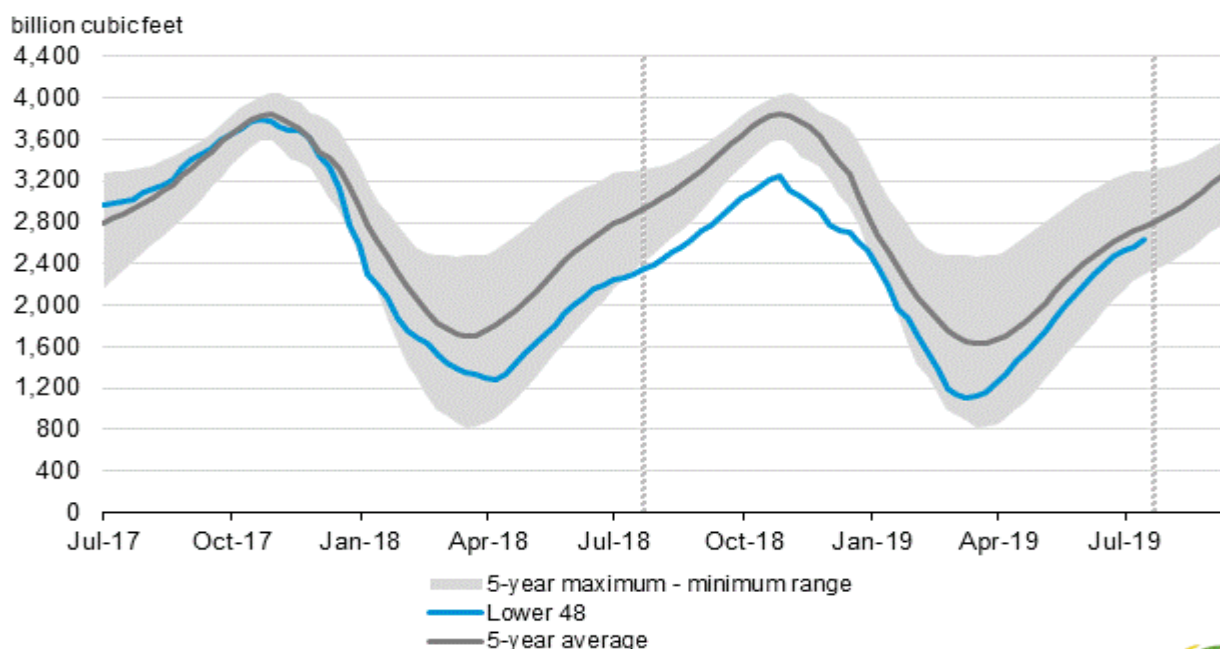
## Economic Conditions

National economic factors also contribute to the formation of wholesale natural gas prices. The Federal Open Market Committee (“FOMC”) slightly lowered its target range for short-term interest rates to 2 to 2-1/4 percent—a decrease of 25 basis points from its previous level. The FOMC indicated that “[i]nformation received since the Federal Open Market Committee met in June 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 growth of household spending has picked up from earlier in the year, growth of business fixed investment has been soft. 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 low; survey-based measures of longer-term inflation expectations are little changed.”<sup>7</sup> 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 2,634 Bcf as of July 26, 2019, a net increase of 65 Bcf from the previous week. Stocks were 334 Bcf higher than the same period a year ago—up 14.5 percent—and down 123 Bcf from the 5-year average of 2,757 Bcf—a decrease of 4.5 percent.<sup>8</sup>

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 August 1, 2019)

<sup>7</sup> Statement of the Federal Open Market Committee (released July 31, 2019).

<sup>8</sup> EIA, *Weekly Natural Gas Storage Report* (released August 1, 2019).

In its July 2019 Short-Term Energy Outlook, EIA expects storage injections to continue to exceed the five-year average, during the remainder of the storage injection season that generally runs through October.<sup>9</sup> This appears to have contributed to Henry Hub spot prices remaining below \$0.25 per therm during the month of July. The current storage picture continues to support 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 July 2019 Short-Term Energy Outlook ("STEO"), EIA expects that **"production growth will begin to decelerate in the coming months. During the first half of 2019, EIA estimates that dry natural gas production averaged 89.9 [billion cubic feet per day (Bcf/d)], a 12.2% increase from levels in the first half of 2018. In the second half of 2019, EIA expects dry natural gas production to average 92.7 Bcf/d, a 7.1% increase from the second half of 2018. The slowdown in production growth reflects lower forecast prices. Slowing demand growth from 2018 levels has reduced the need for natural gas production to grow at the pace experienced during the past year, contributing to a lower market-clearing price. However, even though growth is expected to slow, EIA expects growth in natural gas production through the remainder of 2019, largely in response to improved drilling efficiency, year-over-year cost reductions, and higher associated gas production from oil-directed rigs. EIA expects flat production in 2020, with annual growth forecast at 1.6%, and production in the fourth quarter of 2020 at 93.2 Bcf/d, compared with 93.3 Bcf/d in the fourth quarter of 2019. Increased takeaway pipeline capacity from the highly productive Appalachia and Permian production regions is [also] helping [to] facilitate production."**<sup>10</sup> 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.<sup>11</sup> Most of the U.S. supply is secure, in that it is generally domestically produced or imported from Canada.

---

<sup>9</sup> EIA, *STEO* (July 2019) at 14.

<sup>10</sup> *Ibid* at 2.

<sup>11</sup> The Department of Homeland Security ("DHS") 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.

## Future Natural Gas Prices

The PGC rate of roughly \$0.56 per therm for July 2019 is unchanged from the previous month, and is up 33.3 percent compared to the same period a year ago.<sup>12</sup> The August 2019 PGC (assuming that the commodity market adjustment factor is zero) may settle around \$0.41 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).

---

<sup>12</sup> The commodity market adjustment factor for the July 2019 PGC was \$0.10 per therm, resulting in the adjusted PGC (excluding the commodity market adjustment factor ("CMAF")) being equal to \$0.4607 per therm.

# Wholesale Natural Gas Price/Supply Assessment Information

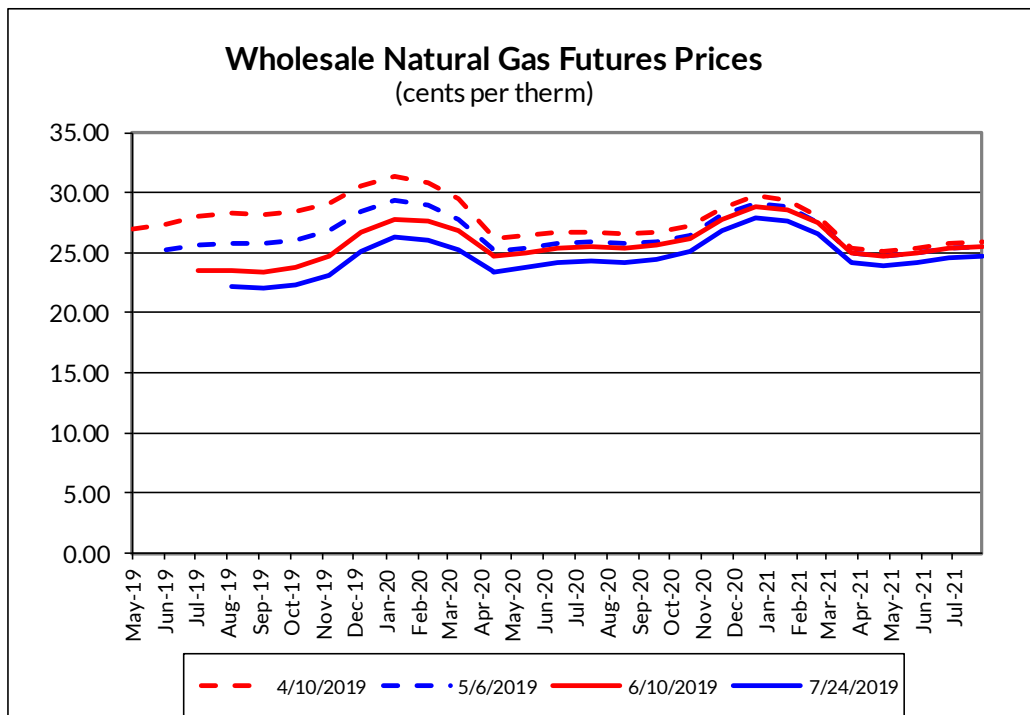
Current for July 24, 2019

## Price Information

Twelve Month NYMEX Strip Components  
7/24/19, cents per therm

Henry Hub Spot Market Price  
7/24/19, cents per therm

	<u>Current Month</u>	<u>Previous Month</u>	<u>Current Only Available</u>
Aug 19	22.22	Aug 19 23.50	22.2
Sep 19	22.02	Sep 19 23.35	
Oct 19	22.27	Oct 19 23.82	
Nov 19	23.18	Nov 19 24.67	
Dec 19	25.08	Dec 19 26.67	
Jan 20	26.31	Jan 20 27.83	
Feb 20	26.04	Feb 20 27.58	
Mar 20	25.25	Mar 20 26.83	
Apr 20	23.54	Apr 20 24.88	
May 20	23.37	May 20 24.67	
Jun 20	23.77	Jun 20 25.02	
Jul 20	24.19	Jul 20 25.40	



The current PGC for July 2019 is about \$0.5607 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 August 2019 may be around \$0.41 per therm. However, given the uncertainty about the weather, as well as other factors, this assessment could easily change. The assessment for August 2019 is that wholesale prices may remain below \$0.25 per therm, resulting in wholesale prices that are at least 10 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 July 30, 2019

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.