

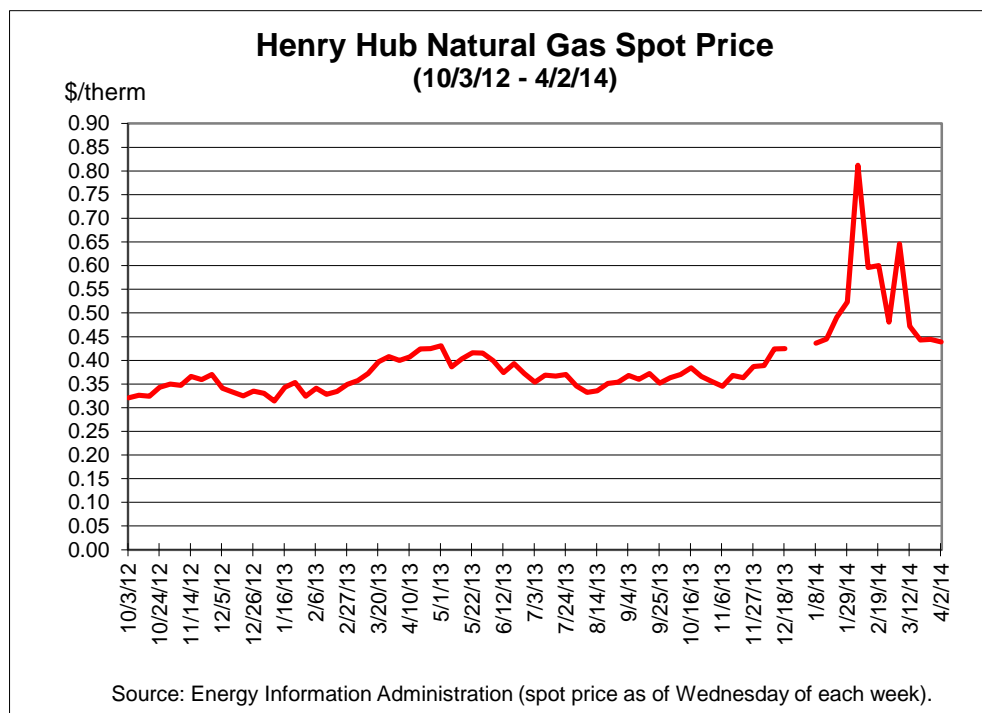
WHOLESALE NATURAL GAS MARKET ASSESSMENT

Wholesale Natural Gas Futures Prices as of April 4, 2014

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 April 2014.¹ OTRA's current assessment of the natural gas market suggests that wholesale natural gas prices may remain below \$0.50 per therm during April 2014 (see Henry Hub Spot Price figure). Recent natural gas spot prices are around 10 percent higher than prices from the same period a year ago.



The Energy Information Administration ("EIA") indicates that the average Henry Hub natural gas spot price for March 2014 was about \$0.49 per therm, down from the \$0.60 per therm average for the previous month, as the weather in March was less extreme but still colder than normal.² In its Short-Term Energy Outlook ("STEO") for April 2014, EIA expects that "[p]rojected Henry Hub natural gas prices [are expected to] average [\$0.444 per therm]

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, *Short-Term Energy Outlook* (April 2014) at 8.

in 2014 and [\$0.411 per therm] in 2015.”³ Natural gas prices averaged \$0.373 per therm in 2013.

As of April 4, 2014, natural gas in storage stood at 826 billion cubic feet (“Bcf”). The working gas in storage is down about 51 percent from the same period a year ago, and is also down by 55 percent compared to the 5-year average.

Commodity prices, together with the costs Washington Gas Light (“WGL”) incurs for storage, peaking, and balancing, have still 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 April 2014 is 82.82 cents (\$0.83) per therm compared with 75.61 cents (\$0.76) per therm for the same period a year ago—up 10 percent. The PGC for April 2014 was, however, down nearly 12 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 31, 2014, the National Oceanic and Atmospheric Administration (“NOAA”) indicated that its outlook for the month of April generally calls for below normal temperatures for the Northern Plains, Great Lakes, and Northeast.⁵ Above normal temperatures are likely for much of the southwestern U.S, extending across Texas and into the coastal areas of the Southeast. Elsewhere, there are equal chances of below, near, or above normal temperatures. Relatively warmer weather, compared to the cold winter, will tend to allow natural gas prices to ease.

Economic Conditions

National economic factors also contribute to the formation of wholesale natural gas prices. The latest release (March 19, 2014) from the Federal Open Market Committee (“FOMC”) indicated that growth in economic activity slowed during the winter months, in part reflecting adverse weather conditions. Labor market indicators were mixed but generally showed further improvement, although the unemployment rate remains elevated. Household spending and business fixed investment continued to advance, while the recovery in the housing sector remained slow. Fiscal policy continues to restrain economic growth, although the extent of restraint is diminishing. Inflation has been running below the Committee’s

³ Ibid at 8.

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.

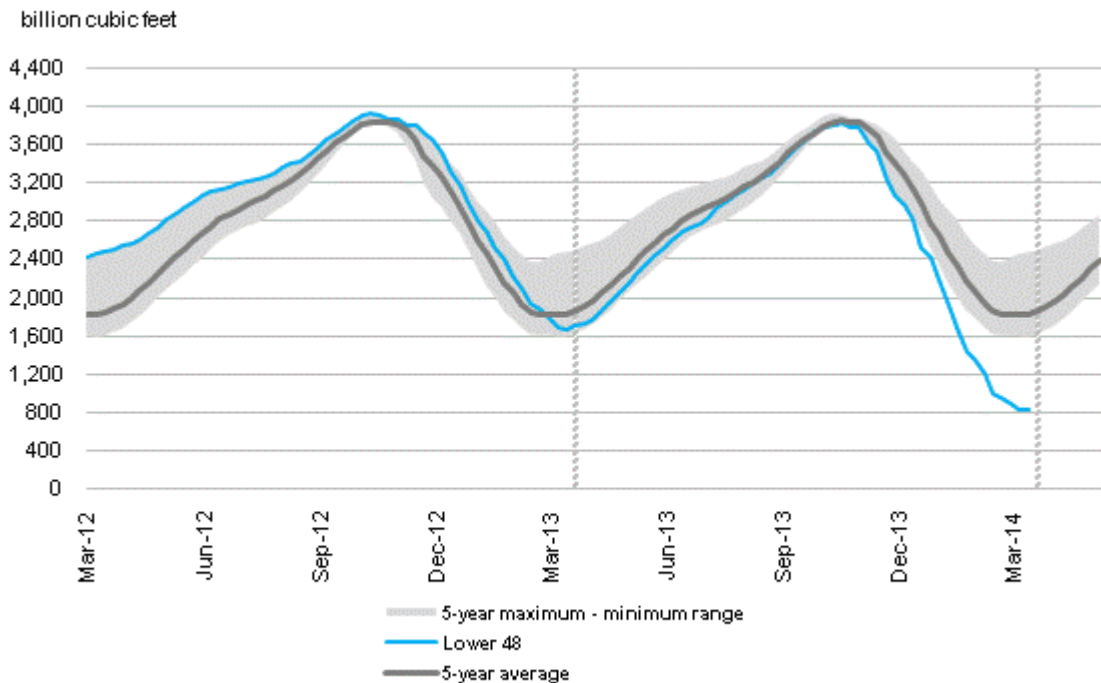
⁵ NOAA at <http://www.cpc.ncep.noaa.gov/>.

longer-run objective, but long-term inflation expectations have remained stable.⁶ Separately, private analysts suggest that recent data reinforces the belief that economic activity may reaccelerate, following the lull caused, in part, by the cold winter weather. For example, recent job growth has generally been broad-based across industries, vehicle sales have improved, and construction spending is trending higher compared to a year ago. At present, the current state of economic activity may be relatively neutral for natural gas prices.

Storage

EIA reports that the working gas in storage was 826 Bcf as of April 4, 2014, a net increase of 4 Bcf from the previous week. Stocks were 849 Bcf lower than the same period a year ago—down 50.7 percent—and down 997 Bcf from the 5-year average of 1,823 Bcf—a decrease of 54.7 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 2009 through 2013. The dashed vertical lines indicate current and year-ago weekly periods.
 Source: EIA, *Weekly Natural Gas Storage Report* (released April 10, 2014)

EIA indicates that “[f]ollowing late-winter cold weather, working natural gas in storage ended March at an estimated 826 Bcf, the lowest level in 11 years. EIA now expects a large rebuild over the injection season, with inventories ending October at 3,422 Bcf. This represents a record stock build of nearly 2,600 Bcf. Expectations for lower demand

⁶ Statement of the Federal Open Market Committee (released March 19, 2014).

⁷ EIA, *Weekly Natural Gas Storage Report* (released April 10, 2014).

from the electric power sector compared with the past several years, as well as increasing production, should help enable a record-high stock build. This month's STEO revises upward the outlook for natural gas marketed production in both 2014 and 2015. While production dipped in the winter months due to freeze-offs in various locations, recent outside data sources indicate production has bounced back and is exceeding record highs set in November."⁸ Warmer weather and a strong storage build will help place 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 April 2014 STEO, EIA indicated that "[n]atural gas marketed production will grow by an average rate of 3.0% in 2014 and 1.5% in 2015. Rapid natural gas production growth in the Marcellus formation is contributing to falling natural gas forward prices in the Northeast, which often fall even with or below Henry Hub prices outside of peak winter demand months. Consequently, some drilling activity may move away from the Marcellus back to Gulf Coast plays such as the Haynesville and Barnett, where prices are closer to the Henry Hub spot price. Liquefied natural gas (LNG) imports have declined over the past several years because higher prices in Europe and Asia are more attractive to sellers than the relatively low prices in the United States. Several companies are planning to build liquefaction capacity to export LNG from the United States. Cheniere Energy's Sabine Pass facility is planned to be the first to liquefy natural gas produced in the Lower 48 states for export. The facility has a total liquefaction capacity of 3 Bcf/d and is scheduled to come online in stages beginning in late 2015. Growing domestic production over the past several years has displaced some pipeline imports from Canada, while exports to Mexico have increased. EIA projects net imports of 3.7 Bcf/d in 2014 and 3.0 Bcf/d in 2015, which would be the lowest level since 1987. Over the longer term, the EIA Annual Energy Outlook 2014 projects the United States will be a net exporter of natural gas beginning in 2018."⁹

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 \$0.83 per therm for April 2014 is down 11.9 percent from the previous month, but is up 9.5 percent compared to the same period a year ago.¹¹ The May 2014

⁸ EIA, *STEO* (April 2014) at 7.

⁹ EIA, *STEO* (April 2014) at 7.

¹⁰ As of April 10, 2014, there were no credible or impending threats against the United States. The National Terrorism Advisory System, or NTAS, replaces the color-coded Homeland Security Advisory System.

PGC (assuming that the commodity market adjustment factor is zero) may be around \$0.60 per therm, based, in part, on the expectation that near-term NYMEX futures prices trade between \$0.42 and \$0.47 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 The commodity market adjustment factor for the April 2014 PGC was \$0.25 per therm, resulting in the adjusted PGC (excluding the commodity market adjustment factor) being equal to \$0.5782 per therm.

Wholesale Natural Gas Price/Supply Assessment Information

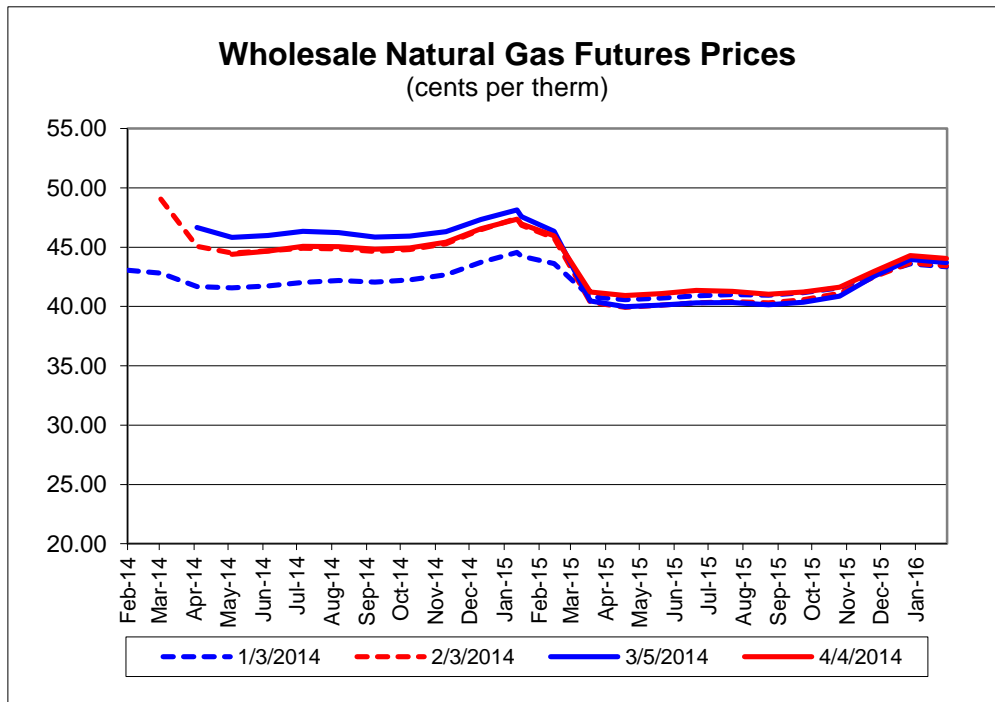
Current for April 4, 2014

Price Information

Twelve Month NYMEX Strip Components
4/4/14, cents per therm

Henry Hub Spot Market Price
4/4/14, cents per therm

<u>Current Month</u>	<u>Previous Month</u>	<u>Current Only Available</u>
May 14 44.39	May 14 45.83	44.9
Jun 14 44.67	Jun 14 46.00	
Jul 14 45.06	Jul 14 46.34	
Aug 14 45.05	Aug 14 46.22	
Sep 14 44.83	Sep 14 45.86	
Oct 14 44.94	Oct 14 45.93	
Nov 14 45.42	Nov 14 46.30	
Dec 14 46.56	Dec 14 47.33	
Jan 15 47.36	Jan 15 48.13	
Feb 15 46.96	Feb 15 47.58	
Mar 15 45.95	Mar 15 46.35	
Apr 15 41.23	Apr 15 40.46	



The current PGC for April 2014 is about \$0.83 per therm. Assuming, among other things, that near-term futures prices remain around \$0.42 to \$0.47 per therm, the PGC rate (excluding the commodity market adjustment factor) for May 2014 may be around \$0.60 per therm. However, given the uncertainty about the weather, as well as other factors, this assessment could easily change. The assessment for April 2014 is that wholesale prices may remain below \$0.50 per therm, resulting in wholesale prices that are higher by roughly 10 percent 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
April 10, 2014

Factors	This Month	Winter Season
Oil Prices	Yellow	Yellow
Weather - Temperature	Yellow	Red
Weather - Hurricanes	No color	No color
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 - N.A.
 Not Applicable