Natural Gas Market Indicators

American Gas Association

August 30, 2018

Edition 328

Reported Prices – futures passed another milestone this month. The volatility of the US natural gas futures market is at its lowest point since its creation 30 years ago, based on Bloomberg data of 30-day realized volatility in front-month Henry Hub futures—another testament to how transformative shale resources have been on the North American gas market. Recent Henry Hub natural gas futures pricing (August 27, 2018) pointed to a 2018–2019 winter heating season strip at $3.05 per MMBtu, but calendar year strips for 2019–2021 are below $2.85 per MMBtu—a continuing vision for supply strength over the next three years.

Weather – no breaks in the temperature so far. Every week since May has been warmer than normal per the US Department of Commerce's Cooling Degree Day data, which shows temperatures are a cumulative 21.3 percent above the 1981 to 2010 average (normal). For the week ending August 25, the Northeast and parts of the Midwest posted cooler-than-normal totals, which brought the US average to a scant 1.6 percent above the 30-year normal. Back to the cumulative totals, regionally all areas of the country have posted warmer than normal temperatures since May.

Working Gas in Underground Storage – storage inventories continue to lag recent history by a significant amount. The EIA noted a below-average injection of 48 Bcf for the week ending August 17, 2018, followed by a more robust injection of 70 Bcf for the week ending August 24, 2018, which brought inventory levels to 2,505 Bcf. That's 20.5 percent below one year ago, and 19 percent below the five-year average, and lower than any level for the week dating back five years. The market now looks ahead to winter with one question in mind: How quickly will inventories rebuild? Injections would need to average about 14 Bcf per day between August 18 and November 2 for inventories to reach 3.5 Tcf. The five-year average injection during that period is 10 Bcf. (Of course, the injection season may extend further into November, as has been the case on average during the past five years.) Given that history, a storage deficit compared with last year as we enter winter is likely.

Natural Gas Production – US natural gas production set a record during the weekend of August 25, 2018, setting a new high for lower-48 dry gas production of 82.8 Bcf per day. Northeast dry gas flows also set new records and flows from the region are the primary driver for the new national records, according to data and analysis from S&P Global. Stepping back and looking at the month, a year-over-year comparison of domestic dry gas production between August 2018 and August 2017 demonstrate growth in US production to the tune of 13 percent, which is remarkable.

Shale Gas – recent earning calls from shale gas producers and others are identifying increases in steel pipe and tubing tariffs up to 25 percent as raising the cost of materials for well drilling and completions, significantly. These costs cut directly into some company bottom lines and are being felt. Steel, trucking, labor tightness and wire line costs were all identified in S&P Global reporting on mid-year earnings calls.

Rig Count – rig counts had their single-largest weekly loss since mid-October 2017, according to data from Baker Hughes for the week ending August 24. The drop of 13 rigs, nine of which were oil-directed and the remainder gas, brings the total rig count to 1,044. Oil accounts for 82 percent of all activity. The gas-directed count at 182 rigs is off its spring and summer highs, between 190 to 200 rigs, but remains robust. We now must wait to see if this is merely a blip on the screen, or if the trend in the rig count is downward.

Pipeline Imports and Exports – imports from Canada are down 7 percent year over year for August 2018 as imports into the Midwest are lagging last year's volumes. The West is offsetting this deficit by importing about 0.2 Bcf per day more than August of 2017. Pipeline exports to Mexico are up nearly 16 percent this August compared with the same month last year. Now at 5 Bcf per day, total US exports to Mexico have been driven by volumes traveling southward from Texas, which has accounted for the clear majority of gains.

LNG Markets – export volumes of LNG from US facilities have most frequently head to Mexico (20 percent of total LNG exports from Sabine Pass since 2016), South Korea and China—in that order. China imported its smallest volume for a month this year in June, just 3 Bcf, but that was likely due to seasonal demand reductions. Back at home, feedgas for LNG exports is averaging 3.3 Bcf per day this August, up 77 percent from August 2017. The Northeast has averaged about 0.6 Bcf per day this month; the Southeast has posted 2.7 Bcf per day on average.

Natural Gas Market Summary – let's take stock of the fundamentals. Some facts: 1) Gas storage inventories are at their lowest level at this point in the season in years. 2) US gas production is at its highest level ever. 3) The US is now exporting roughly ten percent of its produced supply. 4) Domestic demand is robust and is up nearly 9 percent year over year. 5) The market continues to price this winter's gas contracts at $3 per MMBtu or below. Where does this leave the prospect of gas supplies for the coming heating season? Our present situation has an analog as recent as 2014 when storage deficits left inventories below year-ago levels. The difference today? A lot more production, but also higher demand, including exports. The number of days left in the typical injection season are waning; based on historical average fills, storage inventories are likely to begin winter at a deficit to last year. Natural gas production is expected to continue to grow, and the impact on this winter's supply portfolio may be significant. And, Canadian and LNG imports will also be at the ready. The wildcard is mother nature, but the market is preparing. Depending on how the winter plays out, prospects of ending the heating season with a storage *surplus* year over year is very much in the cards.