Natural Gas Market Indicators

American Gas Association

November 14, 2016

Reported Prices – natural gas pricing for December 2016 delivery is trading around $2.65 per MMBtu as we enter the official start the winter heating season. Crude oil prices, above $50 per barrel in October, have fallen into a $44–$45 range at the West Texas Intermediate and Brent spots. Now we wait. We wait for colder temperatures and the OPEC ministers to position production targets. Happy holidays!

Weather – temperatures moderated briefly in the Northeast at the end of October but then quickly reverted to the well-above normal levels, where the rest of the country was and remains. Data from the National Oceanic and Atmospheric Administration (NOAA) showed colder-than-normal temperatures in New England and the Middle Atlantic during the last week of October. Then, for the week ending November 5, the United States posted 45.8 percent warmer-than-normal temperatures with every single region reporting temperatures representing double-digit percentages above normal.

Working Gas in Underground Storage – a new record has been set! The major consequence of the warmer-than-normal temperatures in November has been continually strong net injections into storage. Following an injection of 54 Bcf of gas into underground storage for the week ending November 4, total inventories reached 4,017 Bcf, a new established maximum for storage inventories ever. The question now: Will another record next week set a new high water mark before end-of-injection season inventories are established and the market begins pulling gas in net terms? We shall see.

Natural Gas Production – as much as low commodity prices have pounded away at natural gas producers in 2016, the country has entered the current winter heating season with 70.9 Bcf per day of dry gas production on average during November 2016, which is only 1.0 Bcf per day less than in November 2015. In fact, year-to-date production volumes in 2016 only trail last year by 0.3 Bcf per day, according to Bentek Energy. Put simply, even with relatively low commodity prices during much of 2016, natural gas production has remained stable.

Shale Gas – natural gas output from the Utica shale formation in eastern Ohio continues to surge. A number of companies that recently announced earnings can point to higher production output from this still-growing shale play. Consol Energy, to pick one example, said in an earnings report that its Utica production in 2016 has increased 47 percent from the same period in 2015. The perceptions of potential for growth of the North American resource base continues to evolve as producers explore new plays and improve performance.

Rig Count – oil and gas rig counts added to their totals for the week ending November 4, according to data from Baker Hughes. Oil activity improved 9 rigs to 450; natural gas rigs gained 3 to 117. The following week saw offsetting activity: gas rigs lost two while oil added the same amount. Miscellaneous-designated rigs lost one, accounting for a net loss of one for the week ending November 11 Activity in the Marcellus has risen 30 percent since the beginning of September as operators added 8 gas rigs overall. Oil activity in the Permian is up during the same period, a gain of

16 rigs or 8 percent. Overall, oil activity is up 11 percent since the beginning of September; gas activity is up 31 percent.

Pipeline Imports and Exports – imports from Canada averaged 4.7 Bcf per day this November to date, a modest decline of 0.1 Bcf per day from last November for the same period. Import volumes during the past week have been about this level, fluctuating between 4.5 to 5.0 Bcf per day. But these volumes very much serve as swing supply as demand in the US dictates, able to increase quickly to meet US consumption. Meanwhile, looking southward, exports to Mexico have averaged 3.7 Bcf per day this November. This represents a significant increase from last year, up 0.7 Bcf per day from November 2015.

LNG Markets – the Cameron LNG project in Hackberry, LA has pushed the timeline for in-service dates including liquefaction trains 1, 2 and 3 back slightly from year-end 2018 to mid-2019 based on the most recent engineering and construction contractor estimates. Meanwhile, volumes of gas for export at Sabine Pass are flowing once again. LNG export feedgas, as reported by Bentek LLC, shows a steady 1.5 to 1.6 Bcf per day of feedgas shipped to the Louisiana facility to prepare for export. Concurrently, however, *imported* volumes of LNG in the Northeast total 0.2 Bcf per day at the moment. That the US is simultaneously importing and exporting LNG underscores the diversity of supply and demand dynamics of natural gas in different parts of the country.

Natural Gas Market Summary – relatively low acquisition prices, an extraordinarily warm summer, and retiring coal-fired power generation combined to push natural gas volumes for power generation in the lower-48 to new highs in 2016. Natural gas spot prices failed to close above $3.00 per MMBtu at any time during the summer, in turn creating a market dynamic ripe for coal-to-gas re-dispatch on the electric grid. But that wasn’t the only coal-to-gas dynamic; the 22 gigawatts of coal-fired power plant capacity retired during the past two years also created new demand for natural gas. And this past summer turned out to be the hottest of any in 50 years. The combined effects of these factors meant that from April through October gas draws for power generation averaged 30 Bcf per day, which is 6 percent higher than last year and 18 percent higher than the five-year average. Remarkable demand indeed. Now as we approach winter, heating loads in small volume markets will predominantly shape the market—that is, if it ever gets cold across a significant portion of the country. Storage inventories are elevated and in record territory. Production is strong and stable. Even rig counts are starting to rise once again. In all, North American natural gas supplies are robust while, for the most part, temperatures are mild—a recipe for modest forward pricing. And then, of course, there is the political climate as the results of the Presidential election sink in….