

Natural Gas Market Indicators



December 29, 2016



Reported Prices – while crude prices have remained in a range of \$53-56 per barrel for West Texas Intermediate and Brent supplies, natural gas at Henry Hub for January delivery slipped to about 3.25 per MMBtu even with the cold experienced during the second half of December but gained about 50 cents to over \$3.70 the last week of December. In addition, the spread between March and April natural gas futures prices had dropped 71 percent in mid-December (as of 12/19/16). This spread displays historic volatility given its location as a transitional marker into the shoulder season. Warmer weather, as well as the market’s perception of winter weather to come, had contributed to a collapse in the spread and suggested that the market believes winter supplies may be sufficient through March.

Weather – with temperatures in the Midwest at -10 degrees Fahrenheit and lower at times during December, it has been reported that there are places on Mars that can be warmer than Chicago when these strong polar events occur. Brrrrrr! These cold temperatures meant the US *finally* saw three weeks in a row of colder-than-normal temperatures. By comparison, last winter had only two weeks – two weeks total – of colder-than-normal temperatures. One in January and one in February. Although 10.8 *colder* than last year at this time, temperatures to date (this year since October) have been 15.6 percent *warmer* than normal as measured by heating degree days for the country as a whole.

Working Gas in Underground Storage – the first working gas triple-digit net withdrawal occurred during the week ending December 9, then was followed by another for the 16th. Working gas inventories are now just under 3.6 Tcf, which was about 5.9 percent lower than last year at this time but still 2.2 percent above the five-year average.

Natural Gas Production – ‘tis the season for executive actions and President Obama has added to his with bans on Arctic and Atlantic drilling recently announced, which impact 115 million and 3.8 million offshore acres in the regions, respectively. Neither action is expected to have a significant impact on domestic production capability, at least in the near-term. In other federal-related news, the Energy Information Administration has published reserves data for year-end 2015 showing a predictable drop in natural gas proved reserves due primarily to wellhead prices, which fell 42 percent on average from 2014 to 2015. Steep reductions in price can shorten well life in reserves calculations resulting in reserves declines. This outcome was predicted by AGA’s preliminary reserves estimate for year-end 2015 during the first quarter of 2016. On the other side of that coin, when wellhead prices increase revisions existing estimates tend to go up. Current proved reserves are estimated to be 324.3 Tcf for year-end 2015, which is down about 17 percent from 388.8 in 2014. Back to current day, dry gas production for December 2016 averaged 70.9 Bcf per day, which is down 1.4 Bcf from December 2015. That said, year-to-date production volumes only trail last year by 0.5 Bcf per day, according to Bentek Energy.

Shale Gas – as noted above, steep reductions in natural gas wellhead prices helped to push proved reserves of shale gas down, also, in 2015 compared to 2014. Revisions to prior estimates and

production outweighed new discoveries and so shale gas reserves fell about 12 percent from 199.7 Tcf to 175.6 Tcf. Total production for the US in 2015 set a new record at 28.5 Tcf and represented the 10th straight year of production increases, supported primarily by the development of shale resources. Reserves information for 2016 will be published by the Energy Information Administration in late 2017, however, AGA will make a preliminary estimate of changes in total reserves for the country in 2016 using individual company reports that become available during the first quarter of 2017.

Rig Count – total domestic rig counts jumped another 16 for the week ending December 23 bringing operating units to 653 – the highest total since early January 2016. Gas-directed drilling alone now stands at 129 rigs, which is up 59 percent from the 2016 low of 81 in August, however, is still 33 rigs behind the gas count one year ago.

Pipeline Imports and Exports – combined LNG and pipeline exports targeted for Mexico reached as high as 5.7 Bcf per day during the second half of December. Essentially, pipeline exports reached 4.1 Bcf per day and natural gas feeding the liquefaction plant at Sabine Pass pushed up to 1.6 Bcf per day. The higher volumes of feedgas are an indicator that Sabine Pass train 3 is now operating and capable of contributing to LNG volumes at the facility. Natural gas imports from Canada tallied as much as 6.6 Bcf per day but averaged 5.3 Bcf per day for the month of December – 0.3 Bcf more than in December 2015. In other LNG news, FERC has granted authorization to Golden Pass Products LLC to construct and operate a new export terminal near Sabine Pass, Texas.

LNG Markets – as new domestic LNG ventures position themselves in a market that is described by many analysts as globally oversupplied, Total SA has indicated that the company will purchase 23 percent of Tellurian Investments, which is the venture started by former Cheniere founder Charif Souki to promote and build the Driftwood LNG project in Louisiana. The financial strength of Total could be a valuable asset in developing the project that will cost billions to construct and complete. US LNG imports started modestly in early December averaging only 0.1 Bcf per day but have actually been three times that year-to-date on average. Exports on the other hand remain strong. Feedgas for liquefaction at Sabine Pass is averaging 1.4 Bcf per day this month.

Natural Gas Market Summary – lower-48 natural gas demand reached 127 Bcf on December 19, the largest daily consumption so far this winter and, in fact for the entire calendar year 2016. Current domestic daily consumption is back in the 80s, however, as temperatures moderated late in December. This consumption volume includes not only sector demand but net exports of LNG with the start-up of Sabine Pass in 2016 and growing pipeline exports to Mexico.

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