

Natural Gas Market Indicators



February 28, 2017



Reported Prices – the NYMEX March contract for natural gas continued to fall during the second half of February 2017 and dropped below \$2.60 per MMBtu the day after President’s Day. Currently, prompt-month contracts (April) are up slightly to about \$2.63. However, a strong storage position and moderate temperature expectations for the balance of winter are driving the pricing story. Oil remains in a relatively narrow pricing band of \$54 to \$57 per barrel for West Texas Intermediate and Brent, respectively, as it has for weeks.

Weather – with the February 25 report of heating degree days, five out of six preceding weeks were more than 22 percent warmer than normal for the country as a whole. Remarkable! Each of the six months from September 2016 through February 2017 was warmer than normal with only December even being close to normal at 2.5 percent fewer heating degree days (warmer). Also, every region of the country has demonstrated fewer heating degree days than normal this winter heating season. Current National Weather Service forecasts point to warmer conditions for most of the eastern lower-48 states, particularly, through the balance of the winter heating season.

Working Gas in Underground Storage – although working gas in underground storage saw triple digit drawdowns eight of ten weeks from early December to mid-February, inventories were well over 2.4 Tcf for the week ending February 10, which was 3.7 percent above the five-year average. A withdrawal of 89 Bcf the following week pushed the current inventory (2,356 Bcf) to 7.1 percent above the five-year average. After beginning the winter heating season with the largest working gas volume in history, underground storage volumes came back closer to normal based on that five-year average but are beginning to build on a surplus once again as moderate temperatures dominate weather patterns, particularly in the southern and eastern lower-48 states.

Natural Gas Production – lower-48 daily dry natural gas production has averaged 70.8 Bcf per day in February, a decline of 3.7 Bcf per day from February 2016 and 2.8 Bcf per day less year to date compared to January-February 2016. However, with rising rig counts (noted later in this report), it would not be surprising to see another production response this year.

Shale Gas – the Pennsylvania Department of Environmental Protection has determined that a well fracking technology applied to the Utica Shale likely contributed to a series of four mini-earthquakes in the southwestern portion of the state during 2016. The technique called zipper fracturing interconnects the permeability between two laterals in separate wells. In the cases cited, the well bores fractured were near basement or brittle crystalline rock, which likely contributed to the detected subsurface quakes. Measures of the seismic events were 2.3 or less on the Richter scale, which are imperceptible at the surface. Most other reports of induced seismicity associated with shale development in the US have been attributed to deep disposal wells where fluids under pressure are injected in porous, saline formations for purposes of disposal.

Rig Count – the rise in the rig count is beginning to show fruit, at least on the oil side. EIA notes that US crude oil production increased in November 2016, the second month in a row, following higher drilling activity. Meanwhile, lower-48 natural gas production is consistently near 71 Bcf per day. Drilling/Production efficiencies working in accordance with higher rig activity means hydrocarbon production has maintained consistent or, in the case of oil, has even resumed growth. The oil-directed rig count is nearly double the low hit in May 2016; natural gas rigs have similarly grown, up 86 percent since August 2016. Total US rig activity now stands at 754.

Pipeline Imports and Exports – imports from Canada overall have averaged 5.4 Bcf per day this month, a decline of 0.3 Bcf from February 2016. Meanwhile, exports to Mexico at 4.0 Bcf per day are 0.6 Bcf per day higher than February 2016. Regarding daily natural gas exports, the combination of pipeline and LNG exports routinely exceeds 5-6 Bcf today, which is remarkable when one remembers that only a decade ago many analysts believed the US would be importing 20 percent of its gas supply in the form of LNG.

LNG Markets – a February 22 report from Moody's suggests that the global LNG market will continue to be oversupplied as production capacity increases and demand slows. According to Moody's, LNG production capacity grew 4.5 Bcf per day in 2016 worldwide and by 2020 may grow incrementally an additional three times more. At the same time purchasers of LNG such as Japan and Korea may reduce consumption, or at the very least see LNG demand flatten during the next three years. This vision of market oversupply is not universally held and, of course, as usual time will tell. Meanwhile, DOE released final data for 2016 LNG exports. Nearly 184 Bcf of natural gas was exported as vessel-born LNG from Sabine Pass to destinations all over the globe from February to December 2016. Meanwhile, feedgas for exports from Sabine Pass have averaged 1.9 Bcf per day during 2017 and LNG imports and distribution to the pipeline grid have averaged 0.5 Bcf per day.

Natural Gas Market Summary – beginning February 18, according to Bentek Energy, the country as a whole experienced two straight days of small net storage injections – not withdrawals. Yes, folks – small but consistent storage injections in the middle of February. Perhaps that gives some sense of how mild this winter has been. Uncertainties in the global LNG market, like the degree to which China may deploy renewable sources of power generation instead of natural gas-fired generation, add questions to the future of the global LNG market and thus the supply/demand balance here in North America. This summer the addition of a stronger hydro position in the west, solar and wind adds in many areas of the country and, of course, seasonal temperatures will play into the role of natural gas in power generation. All of this seems to be reflected currently in modest short-term market pricing expectations.

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