

Natural Gas Market Indicators



January 27, 2017



Reported Prices – the late December upward pull on natural gas prices was short lived as prompt-month futures bounced in a range of \$3.15 to \$3.35 for much of the second half of January, often lower than just a few weeks prior. However, the February contract for natural gas on January 26 went above \$3.40 with support from expectations of colder weather to come. Oil pricing has narrowed slightly to \$53-\$56 per barrel for West Texas Intermediate and Brent.

Weather – after a generally colder than normal mid-December, heating degree days have demonstrated two consecutive weeks of 10.6 and 29.3 percent warmer than normal conditions for the country as a whole. This pushed aggregate heating degree day data to 15.5 percent fewer days than normal (warmer) for the period extending back to the beginning of October 2016. As reported previously, every census region of the country has been warmer than normal in aggregate during the past four months, individually.

Working Gas in Underground Storage – natural gas storage stocks were drawn down by 243 Bcf for the week ending January 13, the largest single weekly net withdrawal from working gas since the polar vortex event in January 2014. After beginning the winter heating season with the largest fill in history, underground storage volumes are now 0.7 percent below the five-year average as lower temperatures and new structural demand in the form of natural gas generation and exports have facilitated triple-digit net withdrawals six of the past seven weeks.

Natural Gas Production – US lower-48 daily dry natural gas production has averaged 70.4 Bcf per day in January, a decline of 2.5 Bcf per day or 3.4 percent from January 2016. The market continues to prove itself resilient. With rising rig counts (noted later in this report), it would not be surprising to see a production response this year.

Shale Gas – “natural gas use increases more than other fuel sources in terms of quantity of energy consumed,” was one of the headlines from the recently published Annual Energy Outlook 2017 (AEO2017) from the US Energy Information Administration (EIA). Projected US natural gas production growth will parallel the continued development of shale gas and tight oil plays, ultimately accounting for nearly two-thirds of total US production by 2040 in EIA’s reference case. Resource plays in the east lead the shale gas production, in their view. On the other hand, EIA projects declining production of coalbed methane through the same time period primarily because of unfavorable resource development economics.

Rig Count – the turnaround is real. Rotary rig counts reported by Baker Hughes climbed 35 for the week ending January 20, 2017. Oil-directed rigs gained 29 to 551. Gas rigs added 6 to 142. The major basins with the largest gains were the Permian (West Texas) and Cana Woodford (Oklahoma), together accounting for 21 rigs. Gas-directed drilling has climbed 25 percent since the beginning of the winter heating season. It seems producers are beginning the year with renewed interest given crude prices above \$50 per barrel and natural gas above \$3 per MMBtu.

Pipeline Imports and Exports – imports from Canada overall have averaged 5.4 Bcf per day, a decline of 0.6 Bcf as warmer temperatures relative to last year have lowered demand in the lower-48. That said, import flows into the western US were actually 3.0 percent higher to start the year than in January 2016. Meanwhile, exports to Mexico at 4.0 Bcf per day are 29 percent higher than January 2016. At the southern border, nearly all of the gain comes from Texas, where pipeline exports are up 30 percent year on year or 0.7 Bcf per day.

LNG Markets – recent investment research and analysis published by Bernstein concludes that as few as six additional LNG projects (of the 50 or so proposed in North America) may actually reach a positive final investment decision (FID) to go with those already at that point. Those already having reached FID and operating status (or under construction or near construction start up) are trains 1-4 at Sabine Pass, projects at Dominion Cove Point and Elba Island, trains 1-3 at Cameron LNG, trains 1-3 at Freeport LNG, trains 1-2 at Corpus Christi and Woodfibre LNG in Canada. In aggregate these projects represent 60 million tons per annum (mtpa) of LNG capacity (north of 8 Bcf per day). The six additional projects that may survive according to Bernstein would add about 47 mtpa (about 6.5 Bcf per day) of supply capacity by the early 2020s and include proposed Lake Charles LNG and Pacific Northwest LNG as well as expansions at Corpus Christi, Cameron LNG, Freeport and Sabine Pass. Here in the lower-48, LNG *imports* have started 2017 relatively strong compared to recent history, averaging 0.5 Bcf per day in January but reaching a much as 1.5 Bcf per day on January 8. *Exports* remain strong, too, with feedgas for liquefaction at Sabine Pass averaging 1.8 Bcf per day this month, remembering that until February 2016 LNG export volumes were zero.

Natural Gas Market Summary – with President Trump now in office some analysts have surmised that the energy industry in the United States will face fewer regulatory restrictions and a stronger pro-fossil-fuel stance by policy makers. What will that tangibly translate to for the natural gas value chain and energy customers? Early in an Administration many actions are quickly taken, but how these translate to tangible results are uncertain. For example, President Trump along with actions directed toward the Keystone Pipeline and the Dakota oil line issued executive orders saying that if pipelines are built in the US, they should use American steel. How does this work in practice? How would it translate to how natural gas utilities operate their businesses, and what will the impacts be on customers? These unknowns aside, what is known is that the first three months of the 2016-17 winter heating season have been warmer than normal in aggregate for every region of the country. However, a recent peak day volume was nearly as high as the peak day from the first quarter 2014 polar vortex. Gas demand has been growing too, particularly as a result of institutional changes in demand from a recovering industrial sector, a power sector with an insatiable appetite for incremental gas generation, LNG exports and continued direct use of gas by consumers.

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