

Natural Gas Market Indicators



April 14, 2016



Reported Prices – since the previous *Natural Gas Market Indicators*, prompt-month natural gas pricing has firmed to about \$2.00 per MMBtu while the seasonal strip climbed to about \$2.90 on average for the 2016-17 winter, both seemingly on the basis of the colder start to April that stimulated late-season demand for some sections of the country. Meanwhile, oil prices have been slowly increasing. Brent and West Texas Intermediate crude are trading at \$44 and \$42 per barrel, respectively. On April 12, WTI crude closed at a 2016 high while finishing above its 200-day average for the first time since July 2014.

Weather – winter offered a parting gift during early April as a polar vortex brought a deep pool of arctic air to much of the lower-48. Unseasonably cold temperatures meant the count of US average heating degree days were 13.1 percent higher (colder) than normal for the week ending April 9, based on data from the National Oceanic and Atmospheric Administration. New England and the Mid-Atlantic were 34 and 38 percent colder than normal respectively. Similarly the South Atlantic and East South Central were 28 percent and 24 percent colder; East North Central was 37 percent colder, and the West North Central was colder by 7 percent. However, farther west temperatures did not drop quite nearly as much. The Mountain and Pacific regions were 40 and 60 percent warmer than normal respectively. Finally, Colorado State University has released its annual predictions for the upcoming hurricane season. The group notes a retreat of the El Niño phenomenon, which in part could result in additional hurricanes. CSU's forecast sees approximately average activity with 12 named storms, 5 hurricanes, and 2 major hurricanes in the Atlantic basin this year.

Working Gas in Underground Storage – the final week of March (ending April 1) posted a net injection of 12 Bcf. The East and Midwest both showed net withdrawals while the South Central and West regions showed net injections. One week later, storage stocks decreased 3 Bcf given the late season cold snap, bringing total gas in storage to 2,477 Bcf nationwide. Underground inventories are now 63 percent above year-ago levels and 52 percent higher than the five-year average. In other words: there is a *lot* of gas in storage to start the injection season.

Natural Gas Production – the previous edition of the *Market Indicators* stated “there is little sign of a domestic natural gas production slowdown just yet.” Well, it turns out April has started off showing some of those signs. Lower-48 dry gas production for April is currently 1.0 Bcf *lower* than 2015 numbers. The drop is yet modest, to be sure. At 71.5 Bcf per day on average this April, the decline is 1.4 percent off last year's flows for the month. Production numbers in the Northeast remain well above 2015 levels by about 12 percent. The decline, rather, is reflected in lower production volumes out of the western and southern production zones, down 3 and 8 percent respectively.

Shale Gas – according to the Energy Information Administration operators in five major hydrocarbon plays in the United States have reduced drilling and other field costs by 25 to 30 percent since 2012. Costs per well in the Eagle Ford, Bakken, Marcellus, and Permian basin areas have seen significant reductions during the past three to four years. EIA noted that differences in elements such as water

disposal and other geologic factors could cause variations in regional well costs but that improvements (lowering) of drilling and well completion prices were universal. Aligning with this perspective, new data from the Bureau of Labor statistics shows that oil and gas extraction labor productivity was up 11.4 percent in 2015.

Rig Counts – rotary rig counts still continue to find little support. For the week ending April 8, a weekly drop of 12 rigs brings the total number in operation to 443. This marks 33 straight weeks of a decline in the overall rig count (noting that three of those weeks saw no change from the one prior). Natural gas rigs are down to 89, having actually gained 1 in the count from one week before. The longer-term effects of lower prices signals are now clear in the rotary rig count. The question is with oil prices rising (somewhat), will there be a consequent reversal in the rig trend? If so, at what price does that occur and how long must it be sustained?

Pipeline Imports and Exports – April imports from Canada are up 5 percent or 0.3 Bcf per day with month-to-date increases in all regions of the country compared with 2015. Exports to Mexico continue their strong pace, up nearly 1 Bcf per day or 38 percent this April from last year.

LNG Markets – LNG trade serves as evidence of a dynamic US natural gas market this April with imports in the north and exports in the south happening simultaneously. Starting with the Gulf Coast, feedgas flows for LNG exports at Sabine Pass have been a steady 0.6 Bcf for the month. Argus reports that five cargoes have shipped from the Louisiana facility so far: two to Brazil, two to Asia, and one to Argentina. These volumes are providing a steady level of demand for the Gulf Coast region. Next we turn to the northeast. LNG imports there have continued at a modest pace. Sendout from import terminals has averaged 0.25 Bcf per day on average in April, likely influenced by the late winter cold snap experienced in New England. These import volumes compare to 0.05 Bcf per day for the same period last year.

Natural Gas Market Summary – there's a record amount of natural gas left in storage as we head into the summer injection season. The question of headroom between current inventories and the total theoretical storage capacity creates the possibility that prices could head lower if adequate summer cooling demand fails to materialize. A possible countervailing trend is production, which is starting to show signs of a flattening or even a slight declining trend. Countervailing *that* are the latent unconnected supplies waiting for infrastructure, which would be another bearish indicator all else equal. As always weather will play a key role in shaping the market this summer. Lots of factors to consider, but the fact remains: there is a lot of natural gas supply out there.

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