Natural Gas Market Indicators

AGA American Gas Association

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Reported Prices – Henry Hub natural gas futures hold natural gas contracts for delivery through November at levels below $3.00 per MMBtu. One has to look to the 2015-16 winter strip before the market prices natural gas above this threshold, and even then it only crawls as high as $3.10 before tumbling back towards $3 by the summer of 2016. In other words, the market does not see any reason to rally gas prices given the strong supply situation in the lower-48 states. Sidestepping to petroleum, West Texas crude oil dipped below $48 per barrel, then went back up to nearly $51. Brent crude is at $57 per barrel, so the differential is shrinking once again – this time to only $6 per barrel.

Weather – it's starting to warm up for many of us, however slowly! March ended with colder temperatures across the eastern US – which is no surprise given the warmer than normal temperatures out west throughout the winter. For the U.S. as a whole, temperatures were 7.7 colder than normal for the week ending March 28. Adding this cold week to the rest of the winter since October, total heating degree days were 0.5 higher (colder) than normal for the U.S. The Mountain and Pacific states were distinct outliers this winter with temperatures of 15 and 33 percent warmer than normal, respectively.

Working Gas in Underground Storage – working gas in underground storage exceeded 1.4 Tcf to close the 2014-15 winter heating season at the end of March and was, therefore, about 75 percent higher than the close last year but 12 percent below the five-year average. Daily net injections for the country as a whole showed up early this year on March 10, succumbed to colder temperatures, then began once again so that by the first week of April daily double digit injections were becoming the norm. It is an earlier start to an injection season that does not have as far to go compared to last year to reach operationally full (about 3.9 Tcf) by November. For the week ending April 3, national working gas inventories stand at 1,476 Bcf – up 15 Bcf from the prior week. The injection season is on.

Natural Gas Production – the first monthly report of natural gas production in Pennsylvania released by the Pennsylvania Department of Environmental Protections shows Cabot Oil & Gas to be the state's leading producer at 1.98 Bcf per day. Chesapeake Energy is right behind them in the inaugural report for January data, which was released April 1. Total state production was 12.6 Bcf per day in January with five counties (Susquehanna, Bradford, Lycoming, Greene and Washington) accounting for 78 percent of the total. National production volumes are currently holding at 72-73 Bcf per day, nearly 6 Bcf per day higher than one year ago to date.

Shale Gas – impacting all domestic production activities but particularly unconventional resource development, Wood Mackenzie estimates that upstream exploration and production costs are likely to be reduced about 33 percent from a 2014 baseline by year-end 2016. In "Upstream Cost Deflation: How much could costs of exploration fall," the authors note that many inefficiencies have been driven out of the exploration and development process due to *high* prices and *high* costs and that now is the time to capture the opportunity of *lower* costs. The 33 percent decline is broken into a 19 percent reduction of like-for-like costs, 5 percent reduction from simplified operations, 5 percent drop from efficiency improvements and 4 percent attributed to valuation of the dollar. In addition, building on the report of new BLM regulations regarding hydraulic fracturing on public lands in the previous *Market Indicators* from March 27, Wyoming is the first state to file suit to block the new rule citing views that the rule exceeds the agency's statutory jurisdiction, conflicts with the Safe Drinking Water Act and interferes with state hydraulic fracturing regulations.

Rig Counts – to begin April, domestic rotary rig counts fell another 20 rigs for the week ending April 2 to 1,028, which is nearly 800 rigs less than one year ago. Eighty-eight percent of the drop is due to reduced activity among oil-directed targets and does not come as a surprise given the precipitous drop in domestic crude oil prices over the past six months.

Pipeline Imports and Exports – at 5.2 Bcf per day, natural gas imports from Canada are 0.9 Bcf per day higher on average for the first half of the month compared to April 2014. Meanwhile, exports to Mexico in April at 2.3 Bcf per day are up about 0.4 Bcf per day with strong growth in volumes out of Texas. New pipeline infrastructure, strong natural gas production regionally and a market seeking demand outlets are supporting the growth in pipeline exports to Mexico.

LNG Markets – with brief surges during the winter, LNG imports stand at 0.5 Bcf per day year-to-date in 2015, which is 0.3 Bcf per day ahead of the first quarter of 2014. More recent import volumes have been 0.0 to 0.1 Bcf per day as temperatures have moderated with the arrival of spring. In other news, the Federal Energy Regulatory Commission has approved the fifth and sixth trains at the Cheniere Sabine Pass LNG export facility, which would bring the total export capacity of the site to about 4.1 Bcf per day. Liquefaction trains 1 and 2, as well as 3 and 4 are currently under construction with potential exports to begin as early as year-end 2015.

Natural Gas Market Summary – a new study from Washington State University shows that methane emissions from US natural gas distribution systems are 70 percent below current EPA estimates of those emissions. Based on data collected from pipeline leaks, meter and regulator stations, and city gates within 13 utility systems across the United States, the study's authors found that emissions from LDCs have decreased over the past 20 years due to upgrades, changes in pipeline materials, and better leak detection and survey methods. As we often report here in the "Market Indicators", industry experience and performance exists on a spectrum – one that is often improving in terms of practices and technologies, as well as the regulatory precepts that oversee these activities. This study demonstrates improvements to gas utility system safety and environmental performance, but it is also part of a larger industry trend of better overall performance.