Natural Gas Market Indicators

American Gas Association

December 30, 2015

Reported Prices – oil prices finally took the plunge that many analysts had been waiting for, falling to well under $40 per barrel on Monday, December 14 with West Texas Intermediate below $35 and Brent below $37. It had been six years (2009) since oil prices had been as low. The second half of December also saw natural gas Henry Hub pricing for January contracts slide to less than $2 per MMBtu. In fact, by December 16 prompt month futures had dropped to $1.79 per MMBtu and were at their lowest close since March 1999. Gas then rebounded and eventually sneaked above $2.25 per MMBtu during the last week of December. Now back to oil. As we approach the New Year, WTI and Brent prices for oil have closed to within pennies of one another – this coming on the heels of lifting the export ban for oil in the United States. Could it be that the previous isolation of North American oil supplies from world markets (and the prevailing discount to Brent benchmarks) is over? We'll see.

Weather – the country continues to be off the charts warmer than normal, coming in at 37.3 percent fewer heating degree days than normal for the week ending 12/26/15. More broadly, warmer conditions have persisted for 13 straight weeks beginning in early October and in aggregate the country has been an extraordinary 24 percent warmer than normal since then.

Working Gas in Underground Storage – the winter heating season is 40 percent behind us now and national working gas inventories have only been scratched. As of mid-December underground storage was still at 3,814 Bcf, according to the Energy Information Administration, and now the question becomes how much will be left once the winter heating season ends after the first quarter of 2016. Could that ending inventory volume also be a record and might there be limited space for summer season injections in 2016? Time will tell, of course, but the market seems to be anticipating an extraordinarily modest storage withdrawal season and a continuation of strong El Nino weather patterns this winter.

Natural Gas Production – lower-48 states dry gas production stubbornly remained in the 71-72 Bcf per day range for most of the month of December, then slipped to 68 Bcf per day over the last weekend. In fact, domestic production has averaged 71.8 Bcf per day for the entire year. That is 2.9 Bcf per day more than the average in 2014 – up 4.2 percent. In the broadest of terms, the increase has come from the northeast with growth in Marcellus and Utica shale production. Turning gas pipeline flows around in eastern Ohio and allowing for volumes to move west has relieved the log jam of production in Ohio, Pennsylvania and West Virginia contributing to the higher production flows.

Shale Gas – the lowest priced gas in the U.S. during December could generally be found in the northeast where Marcellus shale gas has traded as low as 58 to 70 cents per MMBtu on Dominion's system, on Millennium Pipeline and at Leidy on different days in the month. That's cheap. About 16 percent of natural gas production is coming from oil wells as associated gas and nearly 50 percent of all domestic production is coming from shale formations. Low commodity prices may persist if the winter of 2015-16 is a non-event. With that as a backdrop, over the weekend of December 19-20

Southwestern Energy laid down the last two rigs it had drilling in the Arkansas Fayetteville shale play, even though it accounts for half of the company's daily production. Fayetteville wells tend to flow much more modestly than Marcellus shale completions, for example, and in the current low price environment struggle to present an appropriate value proposition for capital spending. Southwestern's ability to return to the play may well be dictated by future market demand and pricing developments.

Rig Counts – for the week of December 23, nine more rigs were lost to the falling counts, leaving the total rig activity at 700. Over the past year, all major production basins saw a net decline in operating rigs with one exception – the Arkoma Woodford gained five rigs and currently totals eight. Much of the decline this year was centered on the collapse in oil-directed activity, which dropped 64 percent year over year. Gas rigs also took a tumble, shedding half of the rigs active one year ago. Despite the falloff in rig counts – and prices – some drilling continues.

Pipeline Imports and Exports – natural gas pipeline *exports* to Mexico in December have averaged a solid 3.3 Bcf per day, which is 83 percent higher than the 1.8 average in December 2014. Volumes for pipeline export are plentiful and cheap. Pipeline *imports* from Canada have run right at 5 Bcf per day in December 2015, which is about 11 percent less than last year at this time. Again, not a surprise given the strong domestic supply position and modest demand due to warm weather so far this winter.

LNG Markets – according to Bentek Energy "feedgas" deliveries have picked up at the Sabine Pass liquefaction facility as Train 1 gears up for first quarter 2016 LNG exports. Gas is being delivered for liquefaction through Creole Trail pipeline. Current LNG *imports* have been about 0.2 Bcf per day given warmer than normal temperatures for much of the country, modest overall demand, and a strong domestic supply position.

Natural Gas Market Summary – lower-48 states natural gas demand is lower this December compared with last year due to mild temperatures, though the regional picture varies. Demand is higher year over year in the South (+3 percent) and West (+15 percent), but soft demand in the Northeast (-18 percent) has more than offset those gains. Up through Christmas, gas demand on some days totaled less than 80 Bcf, constituting fairly weak requirements, especially when compared to a peak demand day of over 130 Bcf during the polar vortex two winters ago. Tepid demand, the strongest underground storage position for this time of year ever, relative strength in domestic production, and consistent imports from Canada pile on to a market rationalizing these factors with continued low natural gas acquisition prices at about $2 per MMBtu at Henry Hub. And believe it or not, we are already 40 percent through the 2015-2016 winter heating season.