Natural Gas Market Indicators

American Gas Association

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Reported Prices – the beginning of December brought declines in both natural gas and petroleum prices. North American natural gas is once again below $4 per MMBtu and currently resides at $3.65 per MMBtu at Henry Hub. Looking to oil, prices continue to fall. During the Thanksgiving holiday OPEC announced it would hold production quotas despite recent months of price declines in the face of rising North American oil production and weakened demand. Markets reacted. European Brent currently trades for $64 per barrel; WTI is at about $61.

Weather – globally averaged temperatures over land and ocean surfaces for October 2014 was the highest on record for the month since record keeping began in 1880, according to the National Climatic Data Center from NOAA. In fact, the January through October global average land and ocean surface temperature was the warmest on record as well. On a smaller scale the contiguous United States snow extent was at a record high this November and temperatures across the US were colder than normal. Go figure. US temperatures during the past two weeks measured 6 and 10 percent warmer than normal. The two weeks before that were 21 and 41 percent colder.

Working Gas in Underground Storage – what began a strong start to the withdrawal season has throttled back. Following a 162 Bcf drawdown in natural gas stocks during the third week of November turned into a much lower-than-average 22 Bcf withdrawal the following week of Thanksgiving. This time last year storage withdrawals were strong and well underway. Warmer temperatures this year means that underground stocks may move closer to or above 2013 levels – quite a remarkable observation considering the record drawdown during last winter's polar vortex. Following a withdrawal of 51 Bcf for the week ending December 5, storage stands at 3,359 Bcf, which is only 186 Bcf or 5.2 percent behind last year's levels and 9.5 percent behind the five-year average.

Natural Gas Production – the Energy Information Administration released new estimates of crude oil and natural gas reserves for year-end 2013 on December 4, 2014. Proved reserves of dry natural gas have grown 10 percent to 354 Tcf. This is important, obviously, because known quantities of natural gas in the ground underpin expectations for annual production, which has been rising. The reserves-to-production ratio has also been rising and now stands at an inventory of about 13.5 years – a very strong on-the-shelf inventory compared to history. Northeast production alone is currently above 19 Bcf per day. Domestic dry gas production is up 7.4 Bcf per day or about 11 percent December 2014 over December 2013 with this latest surge. Wow! December has brought with it successful all-time records in dry natural gas production, the most recent of which was Sunday December 7 at 72.8 Bcf. Production just keeps growing.

Shale Gas – digging a little deeper into the recent EIA reserves report, natural gas from shale accounted for 45 percent of total reserves by year-end 2013. It also accounted for 43 percent of natural gas production in the US. Regionally, new pipeline expansions in the Northeast commenced in November increasing takeaway capacity by 1.7 Bcf per day. In aggregate, Northeast gas production increased to 18 Bcf per day during November, but volume growth was offset by various unplanned maintenance events, according to Bentek LLC. Their modeled production for the North shows a 29 percent increase at the beginning of this December compared with 2013 – a growth of 4.5 Bcf per day.

Rig Counts – US oil drilling may see some slowdowns during the coming months. According to Reuters using information from DrillingInfo, permits for new wells dropped 15 percent across 12 major shale formations last month. It comes as no surprise that declines in liquids prices will shift operator's expectations and cause re-evaluation of drilling budgets and schedules.

Pipeline Imports and Exports – imports from Canada have oscillated between 4.8 and 5.5 Bcf per day during the past week. On a monthly basis, Canadian pipeline imports have averaged 5.7 Bcf per day, which is 0.4 Bcf per day lower than December of last year. Across the year, pipeline imports have averaged 5.1 Bcf per day – nearly identical average volumes compared with 2013.

LNG Markets – natural gas futures for January delivery in the UK are calling for $8.80 per MMBtu at the National Balancing Point and remains under $9 per MMBtu currently through the winter. Asian prices are similarly soft relative to the past couple years. Platt's reports their Japan-Korea LNG marker (as of November 17) at $12.49 per MMBtu – a plunge of nearly 30 percent year over year! Lower demand is in part responsible for the softer price dynamics overseas. However, lower crude oil prices could add further downward pressure where oil-linked contracts influence LNG prices.

Natural Gas Market Summary – One question on analysts' minds is the effect of plummeting oil prices on natural gas production. By one measure about 25 percent of natural gas supplies today is associated production from liquids- and oil-rich shale, according to Bloomberg New Energy Finance. As oil prices fall, possible pull backs in oil drilling could mean less "free" associated gas produced from these plays. All other things equal, this would push natural gas prices up, right? Except many dry gas plays are still economic at today's natural gas prices – in other words, the *supply curve* is relatively flat at current levels of demand. Producers don't have to seek out higher-cost shale gas to meet existing consumption. Another factor supporting gas economics is the indirect effect of lower costs for oil field services. As more rigs, crews, and equipment become available with less oil-directed drilling, costs for these services decline, which can lower overall costs for drilling and completing dry gas wells. Where does this put us? The dynamics at work are more extensive than space here allows, but ultimately the question, one which is longer-term, boils down to whether the cost of natural gas supply is affected by oil price movements. To be sure, there are delays between price movements and industry response. Budgeting and planning cycles take time to play out. But so far, in the short-term, we see today that natural gas production is at a record, storage stocks are closing in on last year's levels, and prices remain in a sub-$4 range. As winter deepens and next year unfolds, we will continue to look at the day-to-day and the longer-term trends in natural gas markets and report them here.