

# Natural Gas Market Indicators



December 1, 2014



**Reported Prices** – crude pricing for West Texas Intermediate and Brent has remained in a narrow band of \$74-\$79 per barrel for the balance of November 2014 after falling into the range midway through the month. Obviously, currently oil prices are low compared to recent history, while prompt-month pricing for natural gas has only seen modest price movement at Henry Hub, \$4.00-\$4.40 per MMBtu, even with a bitter winter week for much of the country at mid-month.

**Weather** – mid-November brought with it unseasonably cold winter weather for much of the country. On November 18, all fifty states accounting for nearly 200 million people recorded freezing temperatures (yes, including Hawaii at higher altitudes) and marked the coldest November morning in nearly four decades. To boot, analysis from the National Weather Service indicated more than half of the country was under the cover of snow. This break from the early season warmer-than-normal trend, which had persisted since mid-October, resulted in a measure of 21.7 percent colder than normal (based on heating degree days) for the week ending November 15, then 41.1 percent colder for the week ending November 22. As we sit now cumulatively, all four census regions in the central portion of the United States plus the South Atlantic have been cumulatively colder than normal going back to the beginning of October. All other regions of the country have been some measure warmer than normal (fewer heating degree days than normal), particularly the Pacific area that has been 37.6 warmer since early October.

**Working Gas in Underground Storage** – the first nation-wide net withdrawal days from underground storage for the 2014-15 winter heating season began November 12, according to Bentek Energy. It seems increasingly unlikely that the Energy Information Administration will still report a net injection for a week in November, so winter is on. In fact, following the first 17 Bcf weekly withdrawal, 162 Bcf was taken from working gas for the week ending November 21, which reduced inventories to 3,432 Bcf – about ten percent behind one year ago and the five-year average.

**Natural Gas Production** – not only has daily gas production increased dramatically with the so-called shale revolution but oil production is up also. August saw 8.6 million barrels of oil and lease condensate produced for the month, a volume not seen since July 1986 – 28 years ago – according to EIA. And if that seems impressive, gross production from gas wells (gas and natural gas liquids) was about 51 Bcf per day equivalent in July 1986 but by July 2014 had registered 85 Bcf per day equivalent. That's right – 85 Bcf per day, which is 67 percent higher than 28 years prior. The pervasive notion 30 years ago that the country was running out of fossil-fuel energy seems to have been incorrect. On a shorter-term basis, cold weather suppressed natural gas production in the Rockies, Texas, and the Southeast temporarily in November. Bentek Energy LLC estimates a cumulative 10 Bcf or about 1.2 Bcf per day of outages due to freeze-offs. Despite the temporary downturn, November 2014 dry gas production has averaged 70 Bcf per day.

**Shale Gas** – lower crude prices in the United States have not immediately undermined domestic natural gas production, shale or otherwise in only a few months. The addition of midstream and pipeline infrastructure in critical producing areas has contributed to growing domestic gas production understanding that the infrastructure may be oil based, also, which contributes to associated natural gas production.

**Rig Counts** – rotary rig counts gained 3 to 1,928 for the week ending November 14, then added one more the following week. Oil-directed rigs gained 6 over the period while natural gas lost a net of 1 for the two weeks. The current oil to gas split is about 82 percent of all rigs directed to oil, with the remainder toward natural gas. Stepping back for a second, oil rig counts have remained fairly resilient despite the downturn in crude prices. Since June, WTI crude dropped 27 percent, but oil directed rigs have actually gained nearly two percent, a somewhat counterintuitive movement as many market observers anticipate cutbacks in exploration and production capital expenditures as prices for petroleum liquids decline. As an aside, natural gas rigs have gained 12 percent since June, also. However, there is a built in lag time between prices and producer response. Budgeting cycles and contracts for services do not immediately respond to changes in prices, so it may take some months for lower prices (if they stay low) to manifest in terms of rig counts and other market indicators.

**Pipeline Imports and Exports** – pipeline imports from Canada averaged 5.6 Bcf per day during November, up about 0.4 Bcf per day from November 2013. Import flows this month are higher than the year-to-date average (5.1 Bcf per day), which itself is on par with the 2013 YTD value. Average export volumes to Mexico are about the same at 1.9 Bcf per day compared to November 2013 but at 2.0 Bcf per day year to date 2014 are up 0.2 Bcf per day over year to date 2013.

**LNG Markets** – Bloomberg New Energy Finance reports that natural gas into Europe as measured at the UK National Balancing Point is at its lowest seasonally adjusted price since 2011 (below the \$10-11 per MMBtu often cited as the price required for US landed supplies), prompted by weaker oil prices and mild weather.

**Natural Gas Market Summary** – dateline – November 18 – the morning cold brought freezing temperatures in all 50 states and the coldest November day in 38 years; snow covered more than half of the contiguous United States; and total daily demand for natural gas soared past 100 Bcf per day. What did prices do? Contracts for December delivery remained under \$4.50 per MMBtu. After storage started at the lowest levels in a decade, increased production and a record storage injection season has capably poised working gas supplies. The industry performed well amid a record winter last year. Do events so far this November indicate the start to a persistent, hanging-on cold for months to come? Obviously, time will tell.

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