

# Natural Gas Market Indicators



January 13, 2017



**Reported Prices** – cold weather led to a bullish market sentiment as last year came to a close, but new realities seem to be driving the market as 2017 unfolds. Prompt-month natural gas futures closed at \$3.93 on December 28; two weeks later, the February contract is now calling for \$3.32 per MMBtu, having dropped as low as \$3.10 at points. Crude oil pricing on the other hand has stayed in the \$52–56 range for West Texas Intermediate and Brent, respectively.

**Weather** – after a generally colder than normal mid-December, heating degree days snapped back with a 23.5 percent warmer than normal week ending December 31, 2016. The new year, however, began with temperatures below average once again and cumulative heating degree days finished 1.8 above (colder) than normal for the week ending January 7. In fact, four of the past five weeks have been colder than normal and certainly colder than last year and yet, for the nation as a whole, heating degree day totals remain 14.6 percent warmer than normal for the past 15 weeks in aggregate. Also, every region of the country, individually, has been warmer since October.

**Working Gas in Underground Storage** – draws on storage inventories lessened considerably then firmed during the past several weeks. After three straight weeks of triple-digit storage withdrawals, EIA reported only a 49 Bcf net withdrawal from storage for the week ending December 30, 2016. Salt dome facilities in the South showed net injections, actually, which served as a mid-winter illustration of those storage fields' flexibility but also demonstrated how weak demand was relative to supplies. But with another solid withdrawal of 151 Bcf for the week ending January 6 working gas volumes in underground storage now sit at 3,160 Bcf. Historical comparisons put that inventory level 10.3 percent below this time last year but only 0.1 percent below the five-year average. Considering we started the winter at an all-time storage inventory high, what a difference cold temperatures make.

**Natural Gas Production** – no matter what gets thrown at this market, the production of natural gas remains resilient. Lower-48 dry natural gas production has remained consistently above 69-70 Bcf per day on average since prices dropped and production began to trend downward. This resilience speaks to a combination of factors, including improvements in producer productivity, connecting latent inventory from drilled-but-uncompleted or completed-but-unconnected supplies, and an uptick in drilling activity in recent weeks and months. Exogenous factors do loom. Winter freeze-offs or infrastructure disruptions can cause a supply event. However, the market as a whole has proved strong amid many changing factors. So far this year dry gas production has averaged 70.2 Bcf per day.

**Shale Gas** – monthly shale gas production was 43 Bcf per day in November, according to EIA. The Marcellus was the leading supply basin at 16.7 Bcf per day on average for the month, an all-time record. In fact, no other shale producing zone even comes close to the productivity of the Marcellus at the moment. The closest basin in terms of volumes happens to be the closest in proximity as well. Utica shale gas production neared 4.2 Bcf per day in November. Following those, the Eagle Ford averaged 3.9 Bcf per day of shale gas produced, the Haynesville 3.7 Bcf per day, and the Barnett 3.1 Bcf per day.

**Rig Count** – the US rig count is up once again and still on the rise. Seven rigs were added the week ending January 6, bringing the total to 665. Active rig counts have risen 64 percent from the bottom established in May 2016 and are back to the same level they were one year ago. Both oil and gas rig activity has increased in recent weeks and months. Natural gas rigs in particular are up 54 rigs to 135 total, a 66 percent jump since August. US oil production has begun to rebound; it would not be inconsistent to expect that natural gas production may rise in 2017 either.

**Pipeline Imports and Exports** – to begin 2017 combined LNG and pipeline exports of natural gas are a whopping 2.3 Bcf per day higher than was the case in January 2016. Of course, much of that has to do with the establishment of LNG exports from Sabine Pass in 2016 but pipeline exports to Mexico are also 0.9 Bcf per day higher when compared to one year ago. Natural gas imports from Canada have averaged 5.2 Bcf per day in January to begin the year, which is actually 0.4 Bcf per less than early January in 2016.

**LNG Markets** – in recent developments, the Japanese energy company JERA has acknowledged receiving the first cargo of LNG from the continental US delivered to Japan from Sabine Pass. The shipment left Louisiana in early December and navigated through the Panama Canal in order to reach its destination. In Alaska, the state-run Alaska Gasline Development Corporation has taken over the process of moving a North Slope LNG project proposal through the FERC process from the original cadre of companies including BP, Conoco-Phillips and ExxonMobil. The company group had determined that the project presented unacceptable risk in a glutted worldwide LNG supply market. Here is the lower-48, LNG *imports* have started 2017 relatively strong compared to recent history, averaging 0.8 Bcf per day in January but reaching a much as 1.5 Bcf per day on January 8. *Exports* remain strong, too, with feedgas for liquefaction at Sabine Pass averaging 1.5 Bcf per day this month.

**Natural Gas Market Summary** – lower-48 natural gas demand reached 135 Bcf on January 6, 2017, according to Bentek Energy, which is only 3 Bcf less than the highest consumption day during the polar vortex three years ago. And yet this winter heating season has been nearly 15 percent warmer than normal for the country as a whole since October 2016. It's a crazy world we live in! In fact, there are explanations, which primarily point to the institutional changes the country is experiencing with respect to natural gas consumption. Gas demand is growing and supply remains strong. Infrastructure is also being refined, so when gas is demanded by homeowners, businesses, industrial users or power generators, it is delivered. Continuing that theme, we used to say that natural gas provided a quarter of primary energy used in the US. Actually, the number is closer to 30 percent, today.

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