

Natural Gas Market Indicators



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Reported Prices – oil prices have continued a harmonic-like motion of advancing, retreating, and advancing again. Brent crude is over \$60 per barrel; domestic WTI is above \$54. Natural gas prompt-month prices have huddled near \$3 per MMBtu and are now trading at about \$2.99. No major pricing movements so far as the official winter heating season nears.

Weather – In September, the National Oceanographic and Atmospheric Administration (NOAA) outlook predicted warmer-than-normal conditions for October through December across much of the country. So far this has proven accurate. The first four weeks of October were 34.5 percent warmer than normal in the lower-48. Every region of the country except the West South Central states has been significantly warmer than normal, although still cooler than last year. Of course, we are very early in the season, and much can change. However, NOAA forecasts in September for the first quarter of 2018 were predominantly normal conditions in the Midwest and northern tier and a better probability of warmer conditions in the southern tier and up the east coast.

Working Gas in Underground Storage – inventories of working gas in mid-October trailed that of last year by about 140 Bcf. At 3,710 Bcf for the week ending October 20, net injection weeks could still go on for some time if seasonal temperature decreases don't materialize. The national working gas volume is currently trailing the five-year average by one percent and last year by about five percent. Certainly, with NOAA's outlook for above-average temperatures for much of the continental US October–December, additional strong weekly builds this month may be likely with net injections continuing into November. Whether or not inventories exceed 3.8 Tcf, the collective storage and infrastructure position looks poised to support the ability of local gas utilities to provide winter heating season supplies to customers.

Natural Gas Production – another day, another record. Preliminary data from Bentek shows dry gas production in the lower-48 reached 75.1 Bcf on October 24—a new daily record. But then, two days later, preliminary estimates show US production hit 75.8 Bcf (October 26)—another new record. These flows surpass last week's record flows of 74.9 Bcf per day (at the time, itself a record). With new Appalachian pipeline capacity expected in service by November 1 or soon after that, and more through the end of the year and into next, signs point to increasing production levels as easing constraints boost supplies. The question is how quickly does production fill this new capacity?

Shale Gas – ExxonMobil received approval to launch a shale gas exploration program from the Neuquén province in Western Argentina. An ExxonMobil press release says that the initial investment will amount to \$200 million to drill and attempt production from seven wells in the Los Todos block. The Neuquén hosts the Vaca Muerta and Los Molles shale formations, which boasts oil and natural gas resources in place. Natural gas production has increased in the area during the few years as some companies have worked to develop the fledging basin. The announcement from ExxonMobil comes

on the heels of news earlier in October that gas transporter TGS has proposed an \$800 million pipeline and gas treatment plant in the Vaca Muerta, according to reporting from Reuters.

Rig Count – oil and gas rigs fell once again, this time shedding 15 from the count for the week ending October 20 and another four rigs for the week ending October 27. The total rig count now stands at 909, 172 of which are gas directed. Oil rigs are now down 4 percent from earlier highs; gas rigs have dropped 10 percent from their peak count in July. Low commodity prices are taking their toll.

Pipeline Imports and Exports – imports of dry gas from Canada average 5.2 Bcf per day in October, down 0.4 Bcf from October 2016. Month-over-month exports to Mexico are 0.1 Bcf per day higher at 4.1 Bcf per day. The marginal increase follows fairly strong growth earlier in the year. Downstream constraints south of the border continue to stifle year-on-year growth, according to an outlook from Bentek. New pipeline construction in Mexico is underway, but delays may push back significant new export volumes. The Villa de Reyes-Aguascalientes-Guadalajara pipeline could open 0.9 Bcf per day of downstream capacity if completed by the scheduled late-2018, according to Bentek.

LNG Markets – Australia became the world's second-largest exporter of LNG in 2015 and is poised to capture additional share of global gas demand. A recent *Today in Energy* from the EIA noted Australia is likely to overtake Qatar as the world's largest LNG exporter in 2019. However, market dynamics complicated the picture. Since the start of new liquefaction projects in Queensland, the Eastern Australia daily spot price traded above the LNG export price to Japan during points in 2016 and 2017. While Australia is closer to many large LNG consumers, self-competition for domestic supplies of gas could put downward pressure on exports. The Australian government recently announced a new mechanism to limit exports if they exceed volumes supplied to the domestic market. While LNG project developers reached an agreement to guarantee domestic supplies to avoid the restrictions, is there a door now open to competing suppliers if buyers worry about uncertainty? Back at home, feedgas for US LNG exports averaged 2.8 Bcf per day this October. Volumes could be increasing soon though as Cove Point is nearly at 100 percent completion.

Natural Gas Market Summary – relative warmth through October hasn't slowed overall demand, which is up 2.2 Bcf per day month on month from 2016. Relative to October 2016, volumes to power generation are up 1.3 Bcf per day; industrial demand is up 0.3 Bcf; residential-commercial consumption is now 0.5 Bcf per day higher. Exports to Mexico and LNG feedgas remains strong, up 2.7 Bcf per day. Meanwhile, supplies are increasing. Record levels of production are flowing into the market have more than offset slight declines in Canadian imports. Storage inventories are robust even though totals are slightly below the all-time highs set in 2016. December prices currently trade at \$3.00 per MMBtu. Now we wait for the first cold snap to see how the market reacts. Winter is coming.

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