Natural Gas Market Indicators

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Reported Prices – while domestic and Brent oil prices have fallen the past two weeks, natural gas futures for December 2018 nested firmly above $3 per MMBtu and were most recently above $4 on November 14, 2018, after three of the past four weeks were colder than normal for the lower-48 states. Oil prices, on the other hand, have continued their decline and with another recent incremental plunge are now just above $56 per barrel for West Texas Intermediate and $66.28 for Brent. Both markers are $10 less than three weeks ago.

Weather – the upper midwest has been cumulatively colder than normal since the beginning of October 2018 (20.2 percent colder in the west north central, for example), but other temperature-sensitive regions for home heating like New England and the Middle Atlantic have been warmer than normal. With that said the traditional winter heating season is underway and seasonal swings in demand are heating up already with increases of more than 10 Bcf per day (November 9 over November 6, for example), predominantly attributable to the small volume residential/commercial heating load. This, of course, is only the beginning.

Working Gas in Underground Storage – through the first week of November net daily volumes of natural gas were still being injected into underground storage for the lower-48 states in aggregate. Then on November 8, S&P Global reported the first daily net withdrawal for the lower-48 states (2.6 Bcf) followed by another withdrawal of 10.3 Bcf the next day. Not large numbers but the first of the season nonetheless and daily withdrawals have continued to grow. Currently, the Energy Information Administration reports that national working gas inventories are 3.2 Tcf, which are about 600 Bcf and 16 percent lower than the five-year average.

Natural Gas Production – dry natural gas production has been generally above 84 Bcf per day and has even reached above 85 Bcf per day during the first two weeks of November. Also, average daily dry gas production year-to-date at 79.5 Bcf is running 8.1 Bcf per day higher than the same period in 2017. The thirty-day average production in the Marcellus basin is 21 percent above this time in 2017, Utica production is up 33 percent during the same period, and East Texas has climbed 52 percent.

Shale Gas – with the addition of 1.7 Bcf per day of takeaway capacity in northeast Pennsylvania created by the start-up of Atlantic Sunrise Pipeline, October permit applications for new wells have increased in the region just as commodity prices have increased, also. By lessening infrastructure constraints, among other variables, commodity pricing moved rapidly from about $1.40 per MMBtu to $2.90, clearly an incentive for producers to consider additional production capacity.

Rig Count – for November 2, 2018, the total US rig count moved down only one from the prior week to 1067 rotary rigs operation, according to Baker-Hughes. Of course, oil-directed drilling dominated current targets, accounting for 82 percent of rigs operating. Gas-directed drilling was in the minority with 193 rigs, but that was 24 rigs higher than one year ago. Then, for the week ending November 9, rigs operating popped up 14 (12 oil and two gas) to 1,081. With stronger prices will we have a drilling run?

Pipeline Imports and Exports – daily natural gas pipeline imports from Canada registered 4.5 Bcf in October 2018. However, that volume was closer to 3.5 Bcf per day in November due in part to the incident in western Canada with an Enbridge pipeline disruption. More normal pipeline service is being restored, and daily volumes are increasing just in time for colder temperatures. With that said, average *imports* from Canada of 3.5 Bcf per day in November are down 1.7 Bcf per day from one year ago. In contrast, pipeline *exports* to Mexico are up 0.5 Bcf per day in November 2018 compared to November 2017 to 4.9 Bcf per day. Total exports of natural gas and LNG now routinely reach 9 Bcf per day or more, representing one of every ten molecules of dry gas production in the country.

LNG Markets – planned maintenance outages at Cove Point (MD) and Sabine Pass (LA) during times in September and October are now over. Both facilities together are routinely seeing pipeline flows of more than 4 Bcf per day for feedgas. Also, Cheniere announced a 24-year supply deal with the Polish Oil and Gas Company, which is the third long-term supply deal that they have announced since sanctioning a third supply train at their not-yet-commercially-operating Corpus Christi facility. Beyond that, Sempra has announced a memorandum of understanding with Total to expand the capacity of Sempra's Cameron LNG terminal and to remake the Energia Costa Azul import terminal on the west coast of Mexico into an export facility. Overall, US LNG feedgas for export has averaged 4.1 Bcf per day this November, which is 1.3 Bcf (39 percent) per day more than November 2017.

Natural Gas Market Summary – total consumption of natural gas including pipeline and LNG exports has averaged about 92 Bcf per day in early November, although it has been as high as 111 Bcf. Consumption is still moderate for winter heating season demand, considering that a peak day consumption record was set January 1, 2018, at nearly 149 Bcf. Of course, managing those swings in load and meeting seasonal variations in gas demand is what local gas utilities do. So, what is different entering this winter season? From a market metrics point of view, two things stand out. Firstly, working gas in storage is hundreds of Bcf lower than the most recent five-year average. That certainly has influences on perceptions of market balance and ultimately commodity prices, which are predictably stronger now compared to earlier in the year. Secondly, however, is that flowing gas supply due to steady production increases in 2018 is running 11 percent (8.2 Bcf per day) higher than in November 2017, so the algebra for meeting winter heating season demand may be changing. We will observe and report what we see in the coming months.