

# Natural Gas Market Indicators



August 11, 2016



**Reported Prices** – crude prices fell toward \$40 per barrel during the past two weeks then rebounded to some degree to about \$41.50 for West Texas Intermediate and over \$44 for Brent. Meanwhile natural gas has done little except to fall, declining to about \$2.60 for September futures contracts and pointing to prices around \$3.08 for the 2016-17 winter season.

**Weather** – since May 28, 2016 every week of the late spring and summer season has been more than 10 percent warmer than normal for the nation as a whole, as measured by cooling degree days. In fact, five of the eleven weeks have been more than 25 percent warmer, leaving the cumulative total of cooling degree days at 20.3 percent warmer for the country, since the beginning of May. New England, the Middle Atlantic and Pacific regions have been the warmest. However, every region of the country has seen more cooling degree days than normal since May.

**Working Gas in Underground Storage** – the market continues to seek balance. The week ending July 29, 2016 saw a net *withdrawal* of natural gas from underground storage, obviously to serve power generation requirements. The net pull was from both salt and nonsalt formations. Regionally, the hot Pacific region saw a net withdrawal as did the South Central, while the East and Midwest noted net injections. As written here many times, the US storage system provides the necessary flexibility to allow the market to keep supply and demand – which are often at very disparate levels – in balance. The last week in July and this summer, more generally, have been no exception. When net injections began in earnest in mid-April, storage stocks were 52 percent above average. Even so, the glut has slimmed. Total working gas in underground storage is now 3,317 Bcf, only 15 percent higher than the five-year average. Again, the market continues to seek balance.

**Natural Gas Production** – measures that would turn over regulation of natural gas drilling and development to municipalities from the state and increase the “setback” of operations from structures from 500 feet to 2,500 feet appear to have enough signatures to be placed on the Colorado ballot this year. Colorado accounts for about 5 percent of US gross withdrawals of natural gas, so developments regarding oil and gas production in the state are not insignificant. Domestic gas production in the lower-48 states has been about 71.4 Bcf per day in August, which is 0.7 Bcf per day less than August 2015. The decrease can be accounted for by looking at market and pricing developments since last year. However, ballot initiatives and push back on hydrocarbon development in some parts of the country continue.

**Shale Gas** – it appears that, in some cases, drilling and production economics associated with the Utica Shale in the eastern United States is surpassing that of the Marcellus shale as companies stick their toe in the waters of the “other” eastern shale, which has seen success in Ohio. For example, National Fuel through its Seneca Resources Corporation entity plans to drill six more horizontal Utica shale wells in northern Pennsylvania after the completion and the initial performance of its first. Generally, their first Utica producer has flowed 60-70 percent higher (per one thousand feet of horizontal pay) than Marcellus completions at a cost only about 30 percent higher. Those economics

work well if they can be consistently duplicated. Operational efficiencies have allowed Seneca Resources to envision a spending plan significantly lower than originally expected in 2016 and total production of 160-165 Bcf equivalent for the year.

**Rig Count** – in the domestic rig count sweepstakes, the oil count was up seven for the week ending August 5 at 381 and gas-directed drilling was down five to 81. Not much else to say except that with improving prices many analysts believe that rig counts will rise. We'll see.

**Pipeline Imports and Exports** – exports absolutely surged in late July, reaching as much as 5.1 Bcf per day. These volumes include exports to Mexico, which have increased since the completion of the Los Ramones II expansion, as well as increasing feedstock volumes for LNG export from Sabine Pass. On the flip side, imports from Canada are strong as power generation demand continues to draw volumes across the border. With monthly volumes in August of 6.3 Bcf per day, net imports are 1.1 Bcf per day higher than in August 2015.

**LNG Markets** – as mentioned, LNG export feedgas has climbed in recent weeks, surpassing 1.1 Bcf per day on July 19 and now consistently above the 0.7 Bcf per day averaged since February. Train 2 at Sabine has commenced commissioning and the increased gas flow has been reported by SNL Energy. These volumes could soon be offset, however. Cheniere Energy is scheduled to shut Train 1 down for maintenance, which could counterbalance the additional feedstock pull from the newly commissioned Train 2. Construction of trains 3, 4 and 5 are underway and Cheniere expects all five trains to be operational by 2019. Meanwhile, sendout to the US pipeline grid from LNG import terminals has average 0.3 Bcf per day this August.

**Natural Gas Market Summary** – the average volume of natural gas flowing to power generators year-to-date in 2016 exceeds that of 2015 by about six percent, recognizing that 2015 was a record year for gas to power generation in and of itself. By comparison, consumption in the residential and commercial sectors has averaged 3.0 Bcf per day lower in 2016 (down 11 percent) compared to 2015 due primarily to the incredibly mild winter across the country during the first quarter of 2016, resulting in a total demand picture for natural gas that is down about two percent from the prior year. To balance the market, production had to fall and has done so by decreasing about 300 MMcf per day on average year-to-date. Balance – that is the theme for this summer – is captured by pricing movements, which started much closer to \$2 per MMBtu earlier in the year, rose to near \$3 for futures contracts at Henry Hub and have since retreated. Balance – an appropriate theme as we watch the Olympic gymnastics competition from Rio.

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