

# Natural Gas Market Indicators



April 30, 2015



**Reported Prices** – as Henry Hub natural gas futures hold narrowly between \$2.50 and \$3.00 per MMBtu for the next six months, what emerges is a picture of relative price stability during the storage injection season. Initial strong storage builds would seem to bolster this view. In fact, 2015-16 winter futures contracts aren't trading much higher with January contracts at \$3.07 per MMBtu. Meanwhile, West Texas crude oil and Brent have firmed in the market, rising to \$59 and \$66 per barrel, respectively. US inventories of crude are high; are geopolitical events in the Middle East propping up oil prices during the last month, or is it the future expectations of increasing demand and tightening supplies?

**Weather** – all the degree day statistics from the National Weather Service are in and the US as a whole for the winter season from October through April 5 was only slightly colder than normal (by 0.1 percent). What began as a warm start to winter quickly turned as February brought wave after wave of cold air from the arctic, pulling the mercury down. Geographically, the weather in the west was the opposite of what folks were feeling in the east. From the Rockies westward, warmer temperatures persisted. The Pacific and Mountain census divisions posted 33 percent and 16 percent warmer than normal temperatures. By contrast, all areas east of the Rockies, with one exception, posted colder than normal temperatures during October through March. The one exception was the West North Central census division, which includes the Dakotas, Minnesota, and states south through Kansas and Missouri. In that case, temperatures were 0.5 percent warmer than normal.

**Working Gas in Underground Storage** – working gas injections are now solidly entrenched with a positive addition of 63 Bcf added for the week ending April 10 followed by larger 90 Bcf and 81 Bcf injections during the following two weeks ending April 24. At 1,710 Bcf inventories now exceed the prior year by 741 Bcf and only trail the five year average by 4 percent or 75 Bcf. With strong current production at about 73 Bcf per day but slow demand as low as 60 Bcf per day, flowing supply including gas from Canada needs someplace to go and, at least until summer cooling loads re-emerge, much of the excess natural gas will go into storage, of course.

**Natural Gas Production** – because of the significant domestic production increase during the last quarter of 2014, daily gas production today is about 5.5 Bcf per day higher than in April 2014. That gap will begin to close as the year progresses with most analysts seeing only modest production growth in 2015 – maybe 1 to 2 Bcf per day on average incrementally – and US production hovering at 73 to 75 Bcf per day. Exploration and development budgets are being slashed as the market adjusts supply to demand with pricing well below \$3 per MMBtu at Henry Hub and storage in a robust place compared to last year.

**Shale Gas** – the April “Drilling Productivity Report” from EIA, which details new-well oil and gas production for the major resource plays, shows signs for the first time in years of an aggregate production slowdown. Oil and gas production in the Bakken, Eagle Ford, and Niobrara are expected to be slightly negative for the month of May 2015. The potential production decline stems directly from

the slowdown in drilling. The pullback in drilling activity, however, has been offset by steady climbs in *new-well* production in both oil and gas production. In other words, each new well is producing more than the previous well, on average, but EIA data indicates that collective drilling activity has slowed enough where replacement volumes are only just meeting declines from legacy production.

**Rig Counts** – US rigs have dropped by almost exactly half during the past year, according to last week’s rotary rig count report from Baker Hughes. Oil rigs account for 77 percent of this decline. All rigs in operation now total 932. As mentioned in the “Shale Gas” section, this tremendous drop in active drilling operations appears to be slowing down aggregate oil and gas production across the US.

**Pipeline Imports and Exports** – averaging 5.1 Bcf per day in April, natural gas *imports* from Canada are 0.7 Bcf per day higher on average when compared to April 2014. Looking southward, pipeline *exports* of natural gas to Mexico have exceeded 2 Bcf every day this year (except for the first four days of 2015 and two days in mid-March). Exports to Mexico year-to-date have averaged 2.3 Bcf per day, which is up about 0.5 Bcf compared to last year at this time.

**LNG Markets** – Freeport LNG is moving ahead after having secured the final financing for the \$12.5 billion dollar project. Its first trains are expected to come online in 2018. Meanwhile, year-to-date sendout volumes from LNG import terminals is twice that of last year, bolstered by cold temperatures and higher prices in the Northeast drawing LNG volumes to meet the winter peak. Currently, however, sendout volume during this shoulder season are zero and have been since the end of March.

**Natural Gas Market Summary** – this marks the 250<sup>th</sup> edition of the Market Indicators! What a ways we’ve come. At the time of the first edition in 2003, natural gas production was averaging 52 Bcf per day and prices were below \$5.00 per MMBtu for several weeks (a year later they would be \$8). The increased utilization of LNG import facilities that year was anticipated to set an annual record of 300 Bcf – and of course the expectation was that LNG *import* utilization would grow in the years ahead. As near or far as that date may seem now, today we are living in a different supply paradigm. Shale gas is the name of the game and domestic supplies are anticipated to meet the long-term natural gas needs of North America and other nations that receive its LNG exports. More natural gas was produced and consumed in 2014 than ever before in the US and many analysts see 2015 as another potentially record year for natural gas utilization as increased industrial and power generation demand drives consumption volumes to ever higher levels. Amid strong demand, the robust North American gas supply portfolio of production, underground storage, and imports, supported by the world’s largest pipeline network that continues to grow, has helped keep prices just at or below \$3 per MMBtu for the past 5 months. What a difference a decade makes.

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