AGA Energy Insights

Natural Gas Market Indicators

Market Summary

Higher energy prices in commodity markets are anticipated to contribute to increases in household expenditures for all major home heating fuels this winter, according to the Energy Information Administration. The *Winter Fuels Outlook* forecasts higher consumption and higher prices for electricity, heating oil, propane, and natural gas users.

- The increase in expected winter consumption compared to last year is largely attributable to colder temperatures forecasted compared with last year, although NOAA is forecasting a slightly colder winter for most of the country, regionally, changes from last winter are fairly consistent.
- Compared to other forms of energy, heating with natural gas is still the lowest-cost option this winter per the EIA's report.

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As of October 14, prompt month futures at Henry Hub settled at **$5.62 per MMBtu**.

TTF Future Prices are **up 740 percent** when compared to May 2020.

Heating degree days were **60.2 percent warmer** than normal in the first two weeks of October.

Weather

The first two weeks of October saw temperatures remain warmer than normal. The US as a whole saw only 35 heating degree days as compared to the historical average of 88 for an average national temperature that was 60.2 percent warmer than normal. These considerably warmer temperatures follow a month of September that saw temperatures 51.7 percent warmer than normal.

Demand

According to the EIA *Winter Fuels Outlook* released on October 13, 2021, the average cost for natural gas space heating is estimated to increase by 30.2% compared to last year. For customers this means an increase of $173, or a total of $746 (2022) vs $573 (2021). This follows a decade of winter average heating bills ranging between $481 (2016) and $636 (2014). Heating oil, propane, and electricity are expected to cost customers on average, $1,734 (+132%), $1,786 (+139%) and $1,268 (+70%) more respectively. The shoulder season is still upon us, as evidenced by the relative mild domestic demand at 70.3 Bcf per day month to date, down 1.8 percent from October 2020, driven in part by mild temperatures across the US. Exports add another 16.2 Bcf per day on top of that domestic total, with pipeline flows to Mexico clocking at 5.9 Bcf per day and LNG exports feedgas contributing another 10.3 Bcf per day (October month to date).

Natural Gas Production

After many days above 91 Bcf per day, lower-48 domestic dry gas production slipped to below 90 Bcf due to declines in production in the South. Average production has been 90.5 Bcf per day in October 2021, five percent above the 86.2 Bcf per day average in October 2020. Nonetheless, the EIA estimates that U.S. average daily production (all 50 states) in Q3 was 93.3 Bcf, a 1.8 percent increase from the first half of the year.

Pipeline Imports and Exports

Pipeline exports to Mexico averaged 5.9 Bcf per day over the first two weeks of October, a slight decline from the year-to-date average. However, imports from Canada over the same time period were 25 percent higher than in 2020.

LNG Markets

Natural gas continues to trade at very high prices in Asian and European markets. On October 14, TTF prompt-month future prices closed at $34.73 per MMBtu, a 740 percent increase from May 2020. The October 14 price represented a 15 percent decrease when the index closed at $39.50 per MMBtu on October 12. Asian prices remained extremely high as well as indicated by LNG spot prices with the JKM closing at $33.31 per MMBtu. The record high prices in Europe and Asia continue to drive near-capacity LNG US exports, averaging 10.5 Bcf per day in 2021, and hitting 11.2 Bcf on October 14. S&P Global Platts projects LNG exports to remain above 11 Bcf per day going into the second half of October as Cove Point comes back online following a three week maintenance outage.

Working Gas in Underground Storage

This year's final gas storage volumes prior to the start of net withdrawals will almost certainly be lower than finishing volumes in recent history. Injections into storage were a robust 88 Bcf for the week ending September 24, 118 Bcf for the week ending October 1, and 81 Bcf for the week ending October 8. With these injections, and with about two weeks remaining in the typical underground storage injection season, national inventories sit at 3,369 Bcf, 4.9 percent below the five-year average and 12.9 percent below year-ago levels. As part of the EIA's *Winter Fuels Outlook*, EIA forecasts that working natural gas inventories will reach nearly 3.6 trillion cubic feet at the end of October, five percent below the previous five-year average. Additionally, the EIA forecasts storage inventories to end the heating season in March 2022 below 1.5 trillion cubic feet, 12 percent below the five-year average for that time of year.

Reported Prices

Prompt-month future prices were relatively stable over the first two weeks of October following nearly six months of increasing prices. On September 29, prices were $5.52 per MMBtu. While prices have fluctuated since, as of October 14, prices closed at $5.62 per MMBtu. The slowed rate of increase in the price of gas coincides with a reduction in demand and an increase in imports from Canada. It remains to be seen how the EIA's *Short-Term Energy Outlook* expectation of a slightly colder winter for much of the country will affect the market. All fundamentals considered, according to the *Short-Term Energy Outlook* natural gas prices will average $5.80 per MMBtu this winter.

Rig Count

For the week ending October 8, the number of total rotary drilling rigs operating in the United States increased by five to 533. All of the new rigs are oil seeking, so gas seeking rigs stayed constant at 99 rigs in operation. The most recent Baker Hughes data reinforces previously discussed evidence that the total number of rigs in operation has stabilized over the past year since the COVID pandemic decline.

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