**Natural Gas Market Summary** – US natural gas inventories are forecasted by the Energy Information Administration to be at 4 trillion cubic feet by the end of October, a record high. The large amount of gas in storage, coupled with consistent warmer than average temperatures across most of the US, have served partially to stabilize the natural gas price volatility caused by the over-active Hurricane season. Thus, despite the uptick in demand as the heating season approaches, gas production and imports from Canada remain below average, and exports to Mexico continue to be higher than 2019 numbers.

**Reported Prices** – the first two weeks of October saw marked variability in natural gas futures contracts for November. On October 2, prices dipped to $2.37, the lowest price for November futures since July 28. However, by October 12, prices had rallied to a four-week high of $2.95. Prices have dropped quickly ever since, and as of the time of this writing, November futures were trading at $2.65. The variability has also affected the long-term strip prices but to a lesser degree. While the first two weeks of October saw long-term strip prices rise and fall, February 2021 futures were trading at $3.27 on October 14, one and a half percent above October 1 prices. In contrast, oil prices have steadily risen over the first two weeks of October. On October 12, West Texas Intermediate closed at $40.88, a three-week high, and Brent closed at $42.45, an eight percent increase from September 28.

**Weather** – the beginning of October marks the beginning of AGA's heating degree day summaries for the upcoming heating season. Temperatures were normal in the first week of October, but the second week saw temperatures 26.9 percent warmer than normal. Of course, since there are few heating degree days this early in the season, small changes in heating degree days can lead to significant percentage changes. Cumulatively, weather in the United States is 15.4 percent warmer than normal and 16.7 percent colder than this time last year. EIA's Winter Fuels Outlook released October 6, which is based on NOAA's forecast, predicts a nationwide average year over year increase in heating degree days of 5 percent, a result that is consistent with the number of heating degree days over the past ten winters.

**Working Gas in Underground Storage** – although the end of October is typically considered the end of the storage injection season, injections often occur in early November if required by temperatures and other market conditions. As a result, this year's final gas storage volumes will almost certainly be higher than finishing volumes in recent history. With about two weeks remaining in the typical underground storage injection season, national inventories at 3,877 Bcf are 10.0 percent above the five-year average and 11.1 percent above year-ago levels. As part of the EIA's Winter Fuels Outlook, EIA forecasts that working natural gas...
inventories will reach more than 4.0 trillion cubic feet at the end of October, which would be a record high.

**Natural Gas Production** – domestic dry gas production slipped to below 85 Bcf per day several times during the first two weeks of October, just as overall demand picked up due to falling temperatures. Average production has been 86.1 Bcf per day in October 2020, 7.6 percent below the 93.2 Bcf per day average in October 2019. The 2020 *World Energy Outlook* from the International Energy Agency, released on October 13, projects natural gas production to rebound relatively quickly as dry gas basins respond to the lost output in associated gas. As a result, the IEA envisions that total gas production will surpass its 2019 peak by 2022.

**Rig Count** – for the week ending October 9, the number of total rotary drilling rigs operating in the United States increased by three to 254. While the number of oil rigs increased by four such that 193 oil rigs are now in operation, the number of gas rigs decreased by one such that 73 are now in operation. The most recent Baker-Hughes data reinforces previously discussed evidence that the total number of rigs in operation has stabilized since mid-June.

**Pipeline Imports and Exports** – imports from Canada continue to lag behind 2019 numbers. Over the first two weeks of October, the US imported 3.8 Bcf per day, a 0.4 Bcf per day decrease from 2020. In contrast, exports to Mexico continue to be higher than in 2019 as the US exported 5.9 Bcf per day over the first two weeks of October, a 0.3 Bcf per day increase from 2020. As such, year to date, the US has imported 11.4 percent less gas per day from Canada and has exported 5.9 percent more gas per day to Mexico than in 2019.

**LNG Markets** – on October 9, Hurricane Delta made landfall along the Gulf of Mexico as a category 2 storm. As a precautionary measure, Cameron LNG shut down production ahead of Delta's landfall only a few days after exporting its first cargo since Hurricane Laura made landfall in late August. At the Hurricane's peak, Cameron LNG feedgas was entirely shut in at 0 MMcf per day, but operations continue to increase this week as no storms affect the Gulf as of this writing. Average LNG feedgas for export volume has been 7.1 Bcf per day in October, a 13.2 percent year over year increase from the 6.3 Bcf per day average in October 2019.