

Market Summary

Biggest Factors: Production

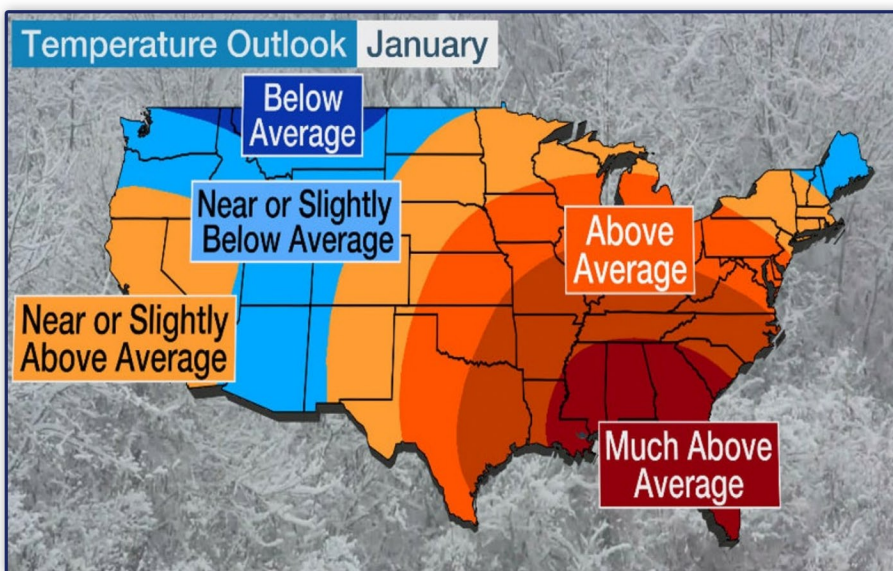
Low prices in the third quarter of 2019 will reduce natural gas-directed drilling in the first half of 2020.

Procurement Takeaway

EIA forecasts the Henry Hub spot price to average \$2.45/MMBtu in 2020, down \$0.14/MMBtu from the 2019 average.

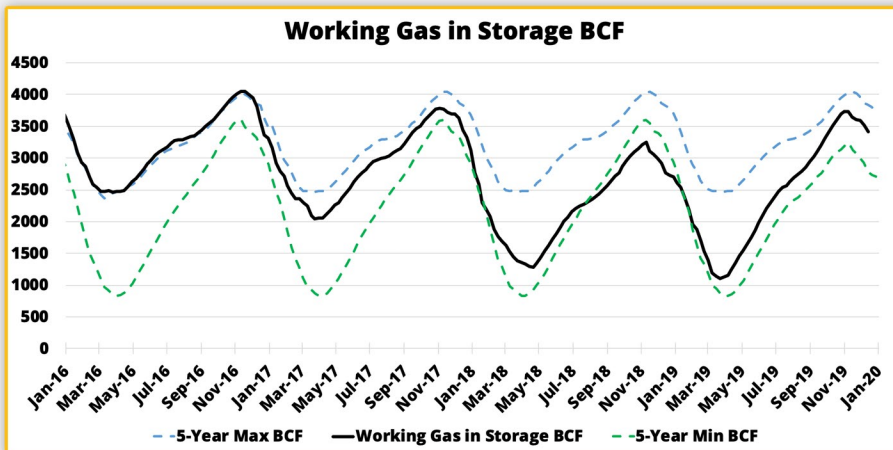
And, with an expedited closure of Aliso Canyon looming, CA facilities should reassess their risk tolerance sooner than later.

Weather



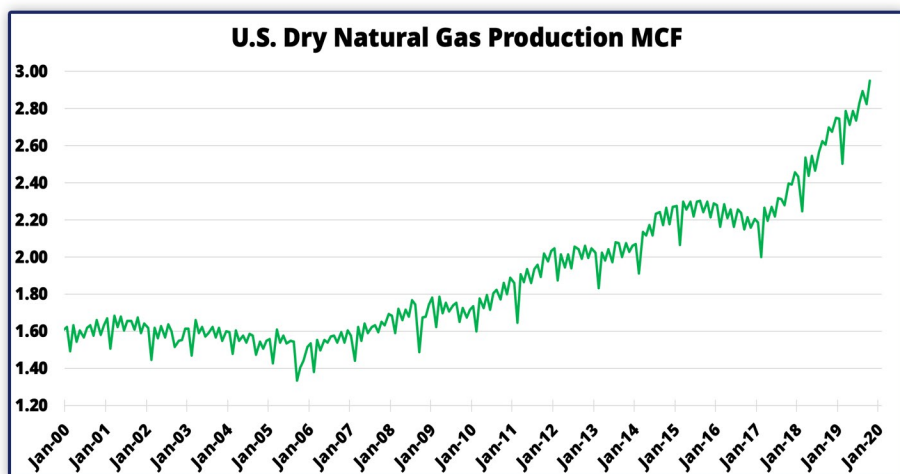
- **TAKEAWAY:** The only area where below average temperatures are anticipated in the first month of the year is from northern Montana into northern Idaho and far northeastern Washington.
- Late December forecasts for warmer weather caused prices to drop more than 5% - lowest levels since August 2019.
- Steady declines continued into early January as the supply of gas is expected to outpace demand with warmer weather forecasts.

Storage



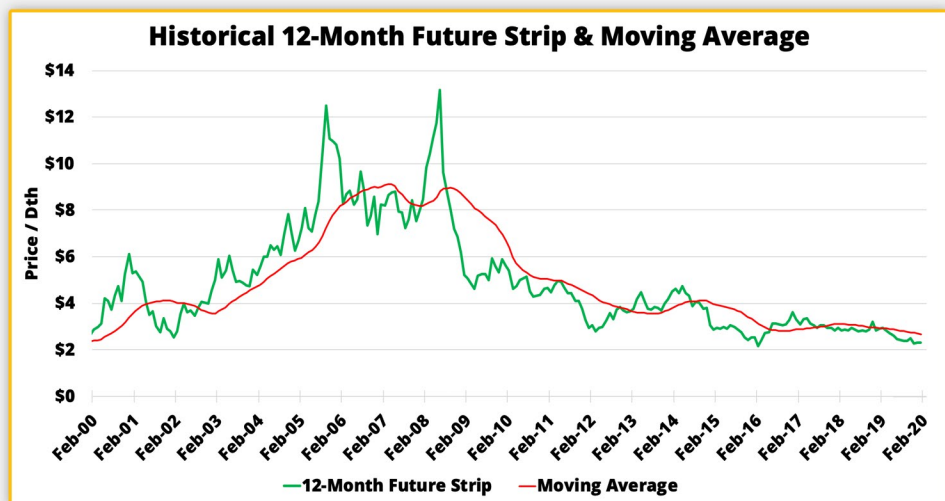
- **TAKEAWAY:** Last year (2019) saw prices decline 26% year-over-year, the largest annual percentage decline since 2014.
- The end of December withdrawal was 32 Bcf less than the five-year average but 38 Bcf higher than year-over-year figures.
- Working natural gas stocks total 3,411 Bcf, which is 9 Bcf lower than the five-year average and 618 Bcf more than last year at this time.

Production



- **TAKEAWAY:** After 10+ years of growth, production is expected to slow or remain flat in 2020.
- Pennsylvania, Ohio, and West Virginia supplied 1/3 of shale gas production in 2019.
- Last year (2019) saw the U.S. drill 17% more than the previous year, causing major oversupply and limiting long-term upward momentum on national prices.

Pricing



Bidweek

Month	12-Month Strip	NYMEX
Oct. '19	\$2.410	\$2.291
Nov. '19	\$2.592	\$2.597
Dec. '19	\$2.345	\$2.597
Jan. '20	\$2.324	\$2.158

Wholesale Prices per Mmbtu

Noteworthy

- Nearly 40% of total natural gas use globally is for the power sector. Natural gas switching is helping to equate to coal's share of electric generation.
- More and more local jurisdictions are evaluating ways to balance or completely curtail natural gas use in new homes and construction. This provides a complicated road ahead, as places like New England were forced to import natural gas (LNG) from Russia in 2018 because of the lack of pipeline infrastructure. They paid up to \$15/MMBtu in December, even though the U.S. sits on an ample gas supply.
- The Department of Energy awarded \$25 million to 16 different projects to develop tools, methods, and technologies to enhance efficiency and safety of natural gas storage, production, and infrastructure.
- Iran tensions may lower natural gas prices further, as crude oil prices have increased since tensions started. In other words, producers may increase oil production with higher prices. If oil output is increased, natural gas supplies should increase as well.