NATURAL GAS MARKET UPDATE

DECEMBER 2021



MARKET SUMMARY

BIGGEST FACTORS: PRODUCTION & WEATHER

Robust production gains along with a slow start to winter heating demand have been bearish. Still, many winter weeks remain, and there is risk associated with a tightening supply/demand picture.

PROCUREMENT TAKEAWAY

This year's volatility has demonstrated why properly assessing your organization's risk tolerance is vital. Ecom-Energy can help your team identify the proper strategy to ensure there are no surprises in 2022.

Despite the positive storage news, the EIA expects price volatility in the

coming months because of uncertainty around seasonal demand, with

WEATHER (BEARISH)

TAKEAWAY - The mild December forecast is largely due to two factors: La Niña and a strong polar vortex.

Temperature Outlook December Compared to Avg Most Below Near Average Most Above

Source: The Weather Company

La Niña is the periodic cooling of the equatorial Pacific Ocean waters, which, depending on its strength, can influence global weather patterns. Meanwhile, a strong polar vortex makes it difficult for cold air to plunge into the U.S. and persist.

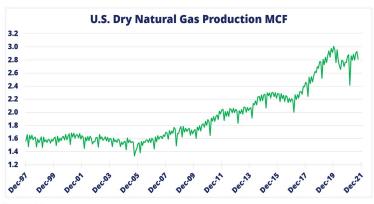
Though La Niña warmth dominates the pattern through the end of December, there remain signs of a possible pattern change in January.

PRODUCTION (BEARISH)

winter temperatures a key driver.

STORAGE (CONTINUED)

TAKEAWAY - Production is nearing November 2019 highs.



Source: EIA

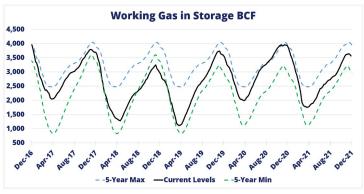
Production is up almost 1 Bcf/d year over year to begin December, with estimates putting it between 95.5 - 96 Bcf/d.

Crude oil rig counts are increasing more quickly than those of natural gas.

The country's top natural gas producer, EQT Corp., said it supports ongoing and increased exports to tackle climate change.

STORAGE (BEARISH)

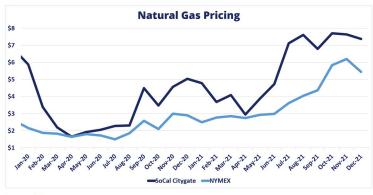
TAKEAWAY - The EIA has lowered its estimates for early 2022 natural gas prices following fall storage injections that outpaced the 5-year average.



Source: EIA

In November, mild weather across much of the country resulted in lower than expected use of natural gas for space heating, although continued high global demand for LNG mitigated the pressure.

PRICING



Source: EIA

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IN THE NEWS

In a statement accompanying this month's *Short-Term Energy Outlook*, EIA Acting Administrator Steve Nalley acknowledged unknowns about the omicron variant and the complicated environment it's creating for the entire energy sector.

"Our forecasts for petroleum and other energy prices, consumption, and production could change significantly as we learn more about how responses to the omicron variant could affect oil demand and the broader economy," he said.

As 2021 draws to a close, the EIA expects annual data to reveal that new solar and wind capacity additions were offset by lower hydropower generation, keeping the overall share for renewables roughly level with last year, or 20%, before climbing to 22% in 2022. Coal-fired generation is seen climbing to 23%, on average, in 2021 before dropping slightly to 22% in 2022.

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The California Public Utilities Commission (CPUC) has approved a suite of decisions aimed at shoring up the electric grid during the summers of 2022 and 2023, in response to an emergency proclamation from Governor Gavin Newsom.

The decisions, among other things, instruct the state's three investor-owned utilities to collectively procure between 2 GW and 3 GW of additional demand and supply-side resources, expand existing demand response programs by doubling the compensation customers will receive for conserving energy when the grid is strained, and roll out a new energy efficiency program.

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The Public Utility Commission of Texas (PUC) has adjusted the scarcity pricing mechanism in the Electric Reliability Council of Texas (ERCOT) power region, lowering the high systemwide offer cap to \$5,000/MWh from \$9,000/MWh.

The change is a response to the extreme winter weather in February, which knocked out power to millions of customers and left some consumers facing bloated energy bills.

The PUC also adopted a new rule regulators say is designed to "increase the coordination between the electric and gas industries during energy emergencies." During the February blackouts, utilities cut power to some gas facilities, which exacerbated the state's energy woes.

After a decade-long lull, the Department of Energy (DOE) is reviewing 66 loan applications totaling \$53.6 billion for advanced nuclear, transmission line, carbon capture, and other cutting-edge energy projects.

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In North Dakota, the rate of natural gas flaring (which is natural gas burned at the wellhead of the production site rather than being captured) declined to an average of 7.5%. This decline resulted in producers capturing 92.5% of produced natural gas, which meets the state's goal to capture 91% of gas produced.