U.S. Natural Gas Market

Office of Natural Resources Revenue

Summary

- In fiscal year (FY) 2024, the U.S. natural gas market experienced price swings, with an overall downward trend.
- The New York Mercantile Exchange (NYMEX) Henry Hub benchmark averaged $2.29/MMBtu; peaking at $3.16/MMBtu in November 2023 and hitting a low of $1.58/MMBtu in April 2024.
- Imputed prices for Federal and Indian natural gas declined to an average of $1.87/MMBtu, a 51% decrease from the previous year.
- The Permian Basin saw negative pricing at times, underscoring regional market challenges.
- EIA reported total U.S. natural gas production reached a record 37.8 trillion cubic feet (103.6 billion cubic feet/day) in calendar year 2023, reflecting strong growth and demand.

The information presented in this report is a synopsis of unaudited volumes and values reported to ONRR during Fiscal Year 2024 via the Form ONRR-2014. The volumes, values and pricing for each of the products discussed are derived from reported information. This information is accurate as of the writing of this report but is subject to change due to reporter adjustment and/or ONRR reviews and audits. Prices are not reported to ONRR on the Form ONRR-2014, so the imputed prices referenced in this report are derived by dividing the reported value by the reported volumes.

Natural Gas Pricing and Production: What Changed?

U.S. natural gas prices, based on the NYMEX Henry Hub benchmark, trended downward in FY 2024. Prices spiked in summer 2024 due to increased electricity demand, reaching $2.63/ MMBtu in July. The price ranged from a low of $1.58/MMBtu in November 2023 to a high of $3.16/MMBtu in November 2024.

Looking at the bigger picture, prices dropped over two years. In October 2022, natural gas was $6.87/MMBtu, but by September 2024, it had fallen to $1.93/MMBtu—a 72% decrease. The average monthly settlement price for FY 2024 was $2.29/MMBtu, down 36% from FY 2023's average.

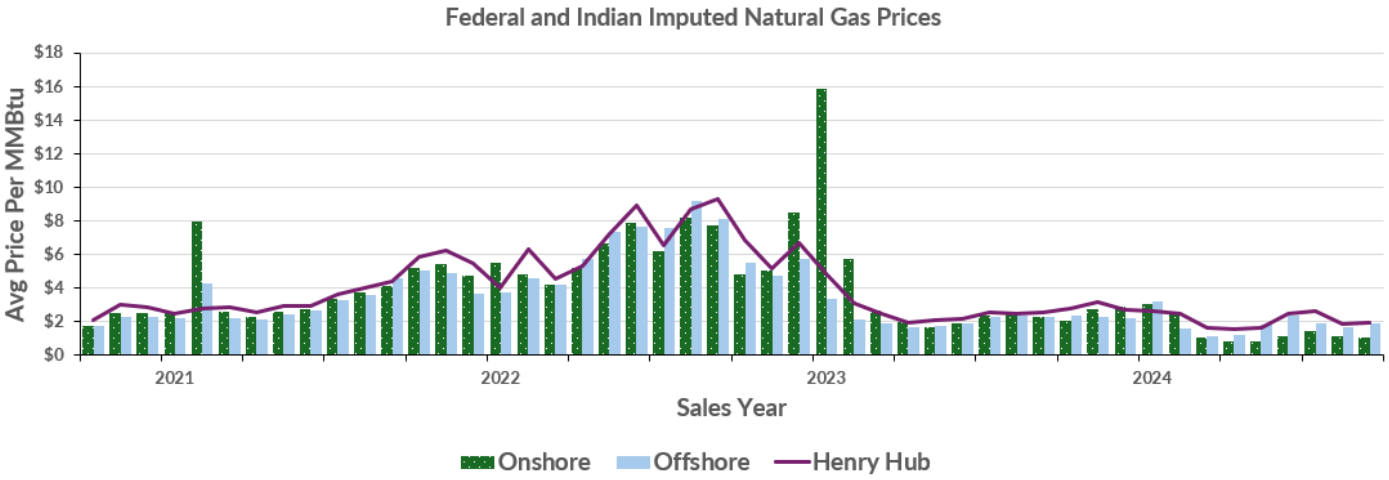
Despite lower prices, natural gas production increased slightly. Reported volumes in FY 2024 were 3.86 billion MMBtu, up 1.5% from 3.80 billion MMBtu in FY 2023.

In some regions, high production levels created challenges. The Permian Basin faced an oversupply crisis from March to November 2024, leading to negative pricing. Limited pipeline capacity forced producers to offload natural gas at steep discounts just to keep oil operations running. This imbalance highlights the ongoing struggle to match supply with demand in a fast-changing market.

Natural Gas Pricing Trends

Federal and Indian natural gas average price fell to $1.87 per MMBtu—a 51% drop from the previous year.

Prices closely followed the NYMEX Henry Hub price benchmark, with a brief spike in January 2023 due to extreme weather and supply disruptions.



In FY 2024, the average price for Federal and Indian natural gas dropped to $1.87/MMBtu—a 51% decline from $3.80/MMBtu recorded in 2023. Prices closely followed the U.S. benchmark NYMEX Henry Hub throughout the year. The price spike in January 2023 was driven by a combination of unusual factors, including:

- Low natural gas storage levels in California
- Unexpected pipeline outages affecting natural gas supply
- Extreme cold weather in the southwestern and western U.S., leading to well freeze-offs and reduced natural gas production

Pricing Trends – Permian Basin

The Permian Basin saw negative natural gas prices due to high production and limited pipeline capacity, forcing producers to offload gas at a loss to sustain crude oil output.

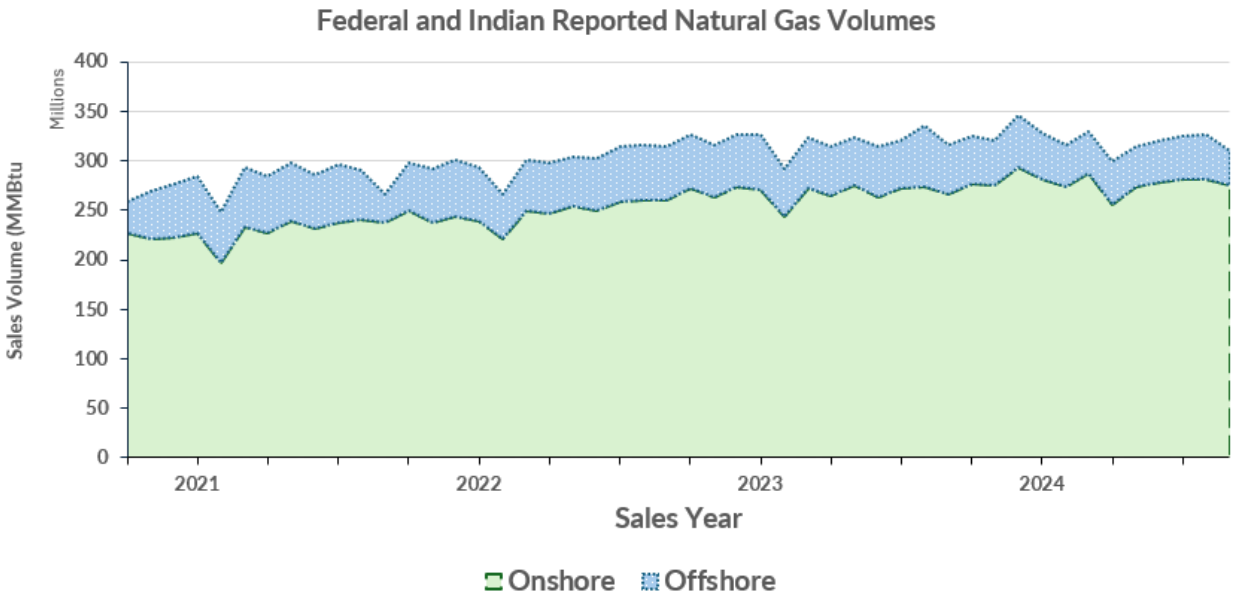
In FY 2024, the Permian Basin (southeast New Mexico and west Texas) faced unusual market conditions that led to negative natural gas prices. This was driven by:

- High natural gas production – a surge in output created an oversupply
- Limited pipeline take-away capacity – insufficient infrastructure made it difficult to transport excess gas

With more gas than the market could absorb, prices dropped below zero from March to November 2024. Most of this gas was associated with crude oil production, and producers had little choice but to sell it at steep discounts—even at negative prices—to keep oil operations running.

Natural Gas Production Trends

Onshore natural gas production rose in FY 2024, while offshore output declined. Overall growth is expected to continue in 2025.

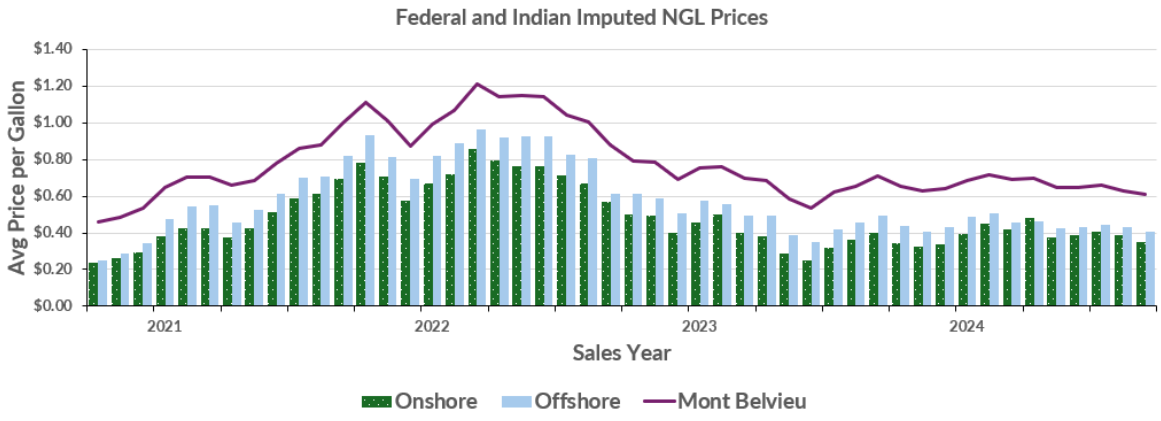


In FY 2024, reported natural gas production volumes from Federal and Indian sources increased by about 1.5% from the previous year. Onshore production grew by 4.8%, while offshore production declined by 15.1%. This trend suggests that onshore production will continue to rise in 2025, while new offshore projects should increase future output in the Gulf of America.

Natural Gas Liquids (NGL)

Federal and Indian NGL prices decreased by 6%, following the OPIS Mont Belvieu benchmark with T&F adjustments.

During FY 2024, the average imputed monthly price for reported Federal and Indian NGL decreased by 6% to $0.42/gallon. This average price generally followed the U.S. NGL benchmark, the OPIS Mont Belvieu price. The difference between the Mont Belvieu market price and the imputed prices is due to the Transportation and Fractionation (T&F) fees, which cover the costs of delivering NGL from the leases to the Mont Belvieu market area.



Onshore production remains strong and is expected to continue to grow in 2025. Recent offshore projects are expected to boost offshore NGL production in the near term.

Federal and Indian NGL reported production volumes increased by 12.7% from FY 2023 to FY 2024. Most production is from onshore sources, which increased by 16% from FY 2023. Onshore growth is expected to continue at a similar rate in 2025. Offshore production decreased from FY 2023 by 2.4%. However, new offshore projects are expected to boost offshore NGL production in the coming years.