

## Frequently Asked Questions (FAQs)

# How much natural gas does the United States have, and how long will it last?

The U.S. Energy Information Administration estimates in the *Annual Energy Outlook 2023* that as of January 1, 2021, there were about 2,973 trillion cubic feet (Tcf) of *technically recoverable resources* (TRR) of dry natural gas in the United States. Assuming the same annual rate of U.S. dry natural gas production in 2021 of about 34.52 Tcf, the United States has enough dry natural gas to last about 86 years. The actual number of years the TRR will last depends on the actual amount of dry natural gas produced and on changes in natural gas TRR in future years.

Technically recoverable reserves include *proved reserves* and *unproved resources*. Proved reserves of crude oil and natural gas are the estimated volumes expected to be produced, with reasonable certainty, under existing economic and operating conditions. Unproved resources of crude oil and natural gas are additional volumes estimated to be technically recoverable without consideration of economics or operating conditions, based on the application of current technology. EIA estimates that as of January 1, 2021, the United States had about 445 Tcf of proved reserves and about 2,528 Tcf of unproved reserves of dry natural gas.

Estimates of TRR are highly uncertain, particularly in places where relatively few wells have been drilled. Early estimates tend to vary and shift significantly over time as new geological information is gained through additional drilling, as long-term productivity is clarified for existing wells, and as the productivity of new wells increases with technology improvements and better management practices. TRR estimates used by EIA for each *Annual Energy Outlook* are based on the latest available well production data and on information from other federal and state governmental agencies, industry, and academia.

#### Learn more:

Table 2. Technically recoverable U.S. dry natural gas resources as of January 1, 2020

U.S. historical dry natural gas production

Annual Energy Outlook, Reference case projections for U.S. annual dry natural gas production out to 2050 ☑

U.S. Crude Oil and Natural Gas Proved Reserves, Year-end 2021

Energy Explained: How Much Natural Gas Is Left?

Oil and natural gas resource categories reflect varying degrees of certainty

Geology and technology drive estimates of technically recoverable resources

Articles on reserves

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### Other FAQs about Natural Gas

- How much coal, natural gas, or petroleum is used to generate a kilowatthour of electricity?
- How much shale gas is produced in the United States?
- · What is the outlook for home heating fuel prices this winter?
- How much does it cost to generate electricity with different types of power plants?
- Does EIA have information on U.S. natural gas and oil pipelines?
- What types and amounts of energy are produced in each state?
- What can I expect to pay for heating this winter?
- How much of U.S. carbon dioxide emissions are associated with electricity generation?
- Does EIA publish energy consumption and price data for cities, counties, or by zip code?
- What are the major factors affecting natural gas prices?
- What are Ccf, Mcf, Btu, and therms? How do I convert natural gas prices in dollars per Ccf or Mcf to dollars per Btu or therm?
- Which states consume and produce the most natural gas?
- What is the volume of world natural gas reserves?
- How does EIA calculate the year-ago and five-year averages in the Weekly Natural Gas Storage Report?
- How much natural gas does the United States have, and how long will it last?
- Does EIA publish shale gas and coalbed methane production and reserves data?
- Does EIA have forecasts or projections for energy production, consumption, and prices for individual states?
- How many alternative fuel and hybrid vehicles are there in the United States?
- What is U.S. electricity generation by energy source?
- Why am I being charged more for heating oil or propane than the price on EIA's website?
- · What is the price or cost of natural gas for U.S. electric power producers?
- Does EIA have county-level energy production data?
- How much natural gas is consumed in the United States?
- · Does EIA have information on unplanned outages or shutdowns of U.S. energy infrastructure?

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