



JUST THE FACTS

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The Numbers Don't Lie...Americans Need Natural Gas

The energy demand curve across parts of the United States, including demand for natural gas, usually takes a dip in September as many end users turn off the air conditioners, open the windows to enjoy cooler temps and consider getting a pre-season maintenance check on their heating system before winter sets in.

It is also a good time to take stock of natural gas consumption trends in Pennsylvania and around the country, as storage fields are replenished and local distribution companies prepare to deliver the supplies residential, commercial and industrial users need in the cold months ahead.

The U.S. Energy Information Administration (EIA) maintains a range of data about the use of natural gas by individual states and the nation, and a review of that data between different years tells a few interesting stories.

Pennsylvania History and Trends

The numbers show that natural gas has continued to climb as a preferred energy source in the Commonwealth, starting with an increase in total consumption of about 35 percent between 2016-2021. They also show that the shale gas revolution that started in the state around 15 years ago was a turning point for the total amount of gas used, as it rose by 141 percent between 2008-2021, including a jump of 66 percent in the seven years between 2008-2014.

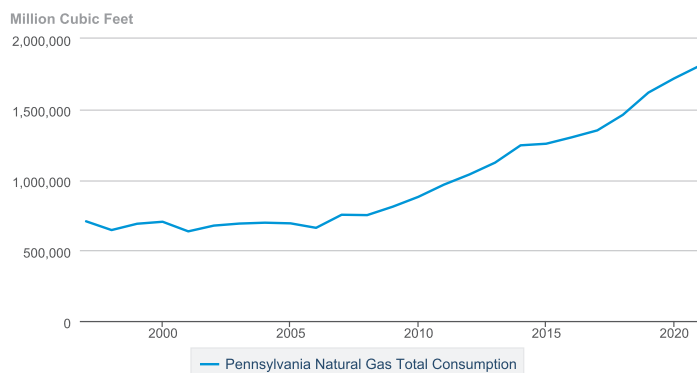
The number of added burner tips or total number of users in Pennsylvania show slight increases for residential and commercial customers in a six-year span (2016-2021), along with an unfortunate decrease in industrial users. Residential growth was a little less than 4 percent, and commercial use rose 5.3 percent. Less encouraging is the number of industries relying on natural gas, which experienced a decrease of 3.8 percent.

The 35-year period between 1987-2021 points to a more favorable trend for residential customers, when usage increased 28 percent, and the number of commercial users, which jumped 50 percent. The contraction of the state's industrial economic base is evident in the fact that the number of users dropped by 26.5 percent during that period. The tally of industrial users in Pennsylvania peaked in 1999, with a total of 7,090. The 2021 figure of 4,482 customers represents a 36.7 percent drop.

In a sign of natural gas's growing preference as source of electricity in Pennsylvania, its use spiked by 327 percent between 1997 and 2022. The most impressive period of growth aligns with the years between 2008-2014, when unconventional natural gas development planted a flag here, rising 175 percent in that six-year timeframe.

Finally, while the increase in the number of natural gas vehicles between 1995-2022 is impressive at 16,860 percent, the volume used for vehicle fuel – only 1,696 million cubic feet in 2022 – remains low. The state experienced a rapid increase of 262 percent between 2016-2018, likely corresponding to the conversion of some delivery fleets from gasoline or diesel to natural gas.

Pennsylvania Natural Gas Total Consumption



Data source: U.S. Energy Information Administration

The success story of Pennsylvania's growing supply and demand for natural gas is evident here, jumping from 747,884MMCF in 2008 to 1,807,772 in 2021.

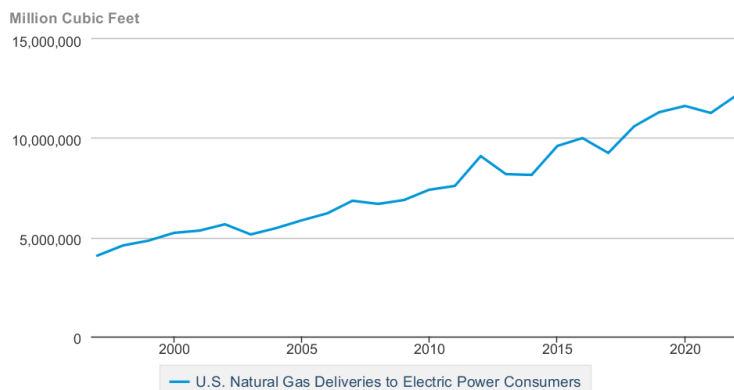
The National Picture

The shale gas boom also jump started the use of natural gas nationwide, though in a less dramatic fashion than experienced in Pennsylvania, with a 41 percent increase in total consumption between 2008-2022. Recent short-term increases across the country for end users is slightly more dramatic than that experienced in the Commonwealth, with total consumption for residential use increasing by 13 percent between 2017-2022, commercial use rising 11 percent and industrial use doing so by 6 percent during the same five-year period.

The concern that arose in the early 2000s – that the United States was depleting its natural gas reserves at an unsustainable pace – is reflected in the total amount of gas consumed in the nation annually for about 19 years, when it stayed between 19.2 MMCF in 1990 and 22.9 MMCF in 2009. The rise with the dawn of the shale gas revolution picked up considerably since that time, increasing 41 percent during the 13 years between 2009-2022.



U.S. Natural Gas Deliveries to Electric Power Consumers



Data source: U.S. Energy Information Administration

The use of natural gas for electric generation nationwide remained stagnant for a considerable period of time, requiring 11 years (1997-2008) to increase from 4.06MMCF to 6.6MMCF. It nearly doubled in the 14 years that followed, reaching 12.12 MMCF in 2022.

The Facts

The numbers from the EIA tell a positive story for current and future U.S. natural gas production and consumption: a 141 percent increase in natural gas use in Pennsylvania between 2008-2022, and a 38 percent increase nationwide during the same period. Going hand-in-hand with increased production are a range of long-term benefits that cannot be emphasized enough: economic growth, high-paying jobs, reduced air emissions, energy security and reduced costs to residential, commercial and industrial users.



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