



The Race for AI Could Be Driving Up Your Power Bill

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After nearly two decades of relatively stable prices, it's estimated that U.S. residential electricity rates increased 13% between 2022 and 2025, outpacing general inflation of 11% over the same period (as measured by the Consumer Price Index). In some regions where electricity was already more expensive, rates surged more than 20%. As a result, uncomfortably high electricity bills are impacting the finances of many Americans.¹

Meanwhile, as of mid-2025, 522 power-hungry hyperscale data centers used by technology companies to run artificial intelligence (AI) programs have sprung up around the nation. Another 180 facilities are expected to be constructed by 2028.²

If you have been shocked by your power bills recently, you may wonder if the furious race to monetize AI is the reason. Depending on where you live, the answer could be a resounding “yes.”

However, electricity prices vary by region and have many influences, from basic supply and demand forces to infrastructure costs and the price of fuels used to generate energy.

New Demand From AI

In the United States, much of the electricity consumed by homes and businesses comes from a state or regional grid on which energy is traded. Customers' utility bills are based on the wholesale cost of electricity plus charges for operating, maintaining and expanding the network. In some places, the supply of electricity (or capacity) has not kept up with demand from an influx of data centers, causing increases in wholesale prices that affect every customer getting their power from the same grid.

A Bloomberg analysis found that wholesale electricity costs near data center hubs were 267% higher in 2025 than they were five years earlier — with the impact on utility bills

traveling longer distances than you might think.³

One prominent example is “Data Center Alley” in Northern Virginia, the world’s largest concentration of data centers. These data centers and others joined a large grid spanning from Illinois to Virginia, maximizing that network’s capacity and pushing up prices for residents of 13 states.⁴

Regions with above-average increases in retail residential electricity prices (from 2022 to 2025)



Source: U.S. Energy Information Administration, May 14, 2025

Blame It on the Weather

Put simply, the nation’s power grid infrastructure is aging and was not designed to power today’s high-tech society. In addition, the costs to rebuild infrastructure and restore power to communities after recent historic natural disasters are passed on to utility customers. Notable examples in just the past five years include catastrophic wildfires in California (2025), Hurricanes Ian (2022) and Helene (2024) in Florida, and a polar vortex (or deep freeze) that caused an electric grid in Texas to fail (2021). Other powerful

storms have caused expensive wind and flood damage in communities throughout the nation.⁵

Expanding Capacity but Not Enough

Rapid growth explains why data centers — which consumed less than 2% of U.S. electricity before 2020 — could gobble up as much as 12% of the nation’s electrical power by 2028, according to Department of Energy projections.⁶

Developers and utilities are ramping up new electricity generation by building or restarting power plants and extending high-power transmission lines, but these types of projects are expensive, can be controversial and often take years to complete.

By 2027, it’s expected that capacity will be added to the nation’s grid at twice the rate seen in the past five years, but it might still take several years to ease the power shortage. Consequently, data centers may have to wait years to connect to a grid, unless they commit to curbing their energy use during peak times when supplies are tight. Some companies are planning to generate their own power on-site, either as a stopgap or to bypass the grid indefinitely.^{7–8}

Projections are based on current conditions, subject to change, and may not come to pass.

1) U.S. Energy Information Administration, May 14, 2025 2, 6–7) The Wall Street Journal, October 15, 2025 3) Bloomberg, September 30, 2025 4) Politico, October 3, 2025 5, 8) The New York Times, November 4, 2025

This content has been reviewed by [FINRA](#).

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