

An Energy System in Transition



New Report Identifies the 5 Key Drivers of U.S. Electricity Prices

For the first time in decades, electricity use in the U.S. is growing, driven by a confluence of factors including broad electrification, industrial reshoring, and the expansion of the digital economy. This has placed a spotlight on our nation's energy infrastructure and the costs associated

with it. While the growth of data centers is a visible part of this story, a comprehensive new independent study from consulting firm [Energy + Environmental Economics \(E3\)](#) finds that rising electricity rates are the result of multiple, complex factors—not load growth alone.

Key Takeaways

- **UNCLEAR RELATIONSHIP BETWEEN GROWTH & RATE HIKES:**

State-level analysis shows no direct correlation between load growth and rising electricity rates.

- **DATA CENTERS CAN LOWER CUSTOMER RATES:**

A study cited in the report found that the data centers evaluated paid their full infrastructure costs plus a surplus, which generated net positive revenue for those utilities.

- **INDUSTRY IS PAYING ITS OWN WAY:**

The review found no evidence of a historic cost shift from data centers to other customers. New mechanisms are increasingly being used to ensure data centers pay for their share of grid investments.

- **PRIMARY DRIVERS OF RISING RATES:**

Retail rate outcomes are influenced by broader supply demand dynamics, market design choices, fuel cost volatility, generation retirements, inflation, and other utility investments such as grid modernization, wildfire mitigation and policy compliance — not load growth alone.

- **PJM MARKET ANALYSIS:**

In a new analysis of the PJM market (13 states and DC*), E3 found data center driven load growth accounted for ~50% of the capacity cost increase while five other factors drove the other 50%.

*Delaware, Illinois, Indiana, Kentucky, Maryland, Michigan, New Jersey, North Carolina, Ohio, Pennsylvania, Tennessee, Virginia, West Virginia, and the District of Columbia.



Each data center site evaluated generated an average

\$3.4M IN NET SURPLUS PER SITE REVENUE,

which could help offset costs for other customers.

Riu, I., Patel, K., Mettetal, L., Santoni-Colvin, M., Platter, H., Greszczuk, S., Cardona, J., Bertrand, L., Spencer, S., & Ramirez, S. (2025). *Tailored for scale: Designing electric rates and tariffs for large loads: A guidebook of industry best practices and examples from real-world Amazon data center case studies* (White paper). Energy and Environmental Economics, Inc. (E3). <https://www.ethree.com/wp-content/uploads/2025/12/RatepayerStudy.pdf>

Five Primary Contributors to Rising Retail Electricity Rates



INFLATION



NATURAL
GAS



GRID
MODERNIZATION



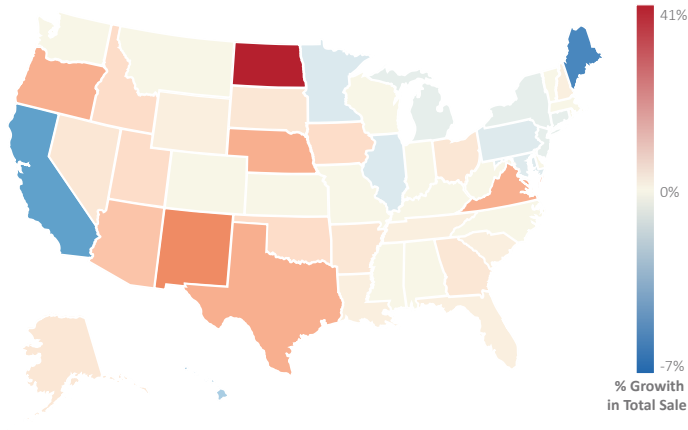
EXTREME
WEATHER



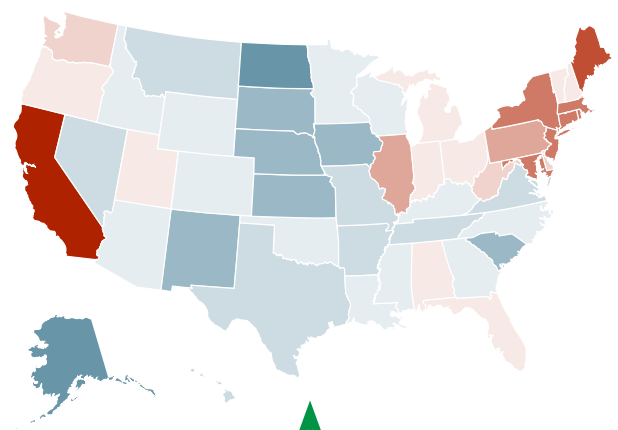
MARKET
DESIGN

National prices compared to sales

Growth in State Retail Electricity Sales: 2019 to 2025



Change in Average Retail Electricity Prices: 2019 to 2025



What to Look at Next:

- Only a **few quantitative studies** have been conducted as of May 2026, examining this relationship between data center growth and retail electricity rates, with most looking at historical data. Further, **many rely on correlation rather than establishing causal relationships**.
- How well **risk mitigation tools** will perform over time.
- How processes (such as infrastructure planning, regulatory lag, cost allocation, and market design) **will change** in response to rapid and sustained load growth.
- While the quantitative studies to date **have not found evidence** of systematic cost shifting, research gaps remain and the risk is not absent.

Bills are rising
29%

While data centers are visible, they aren't the primary driver.

The Path Forward

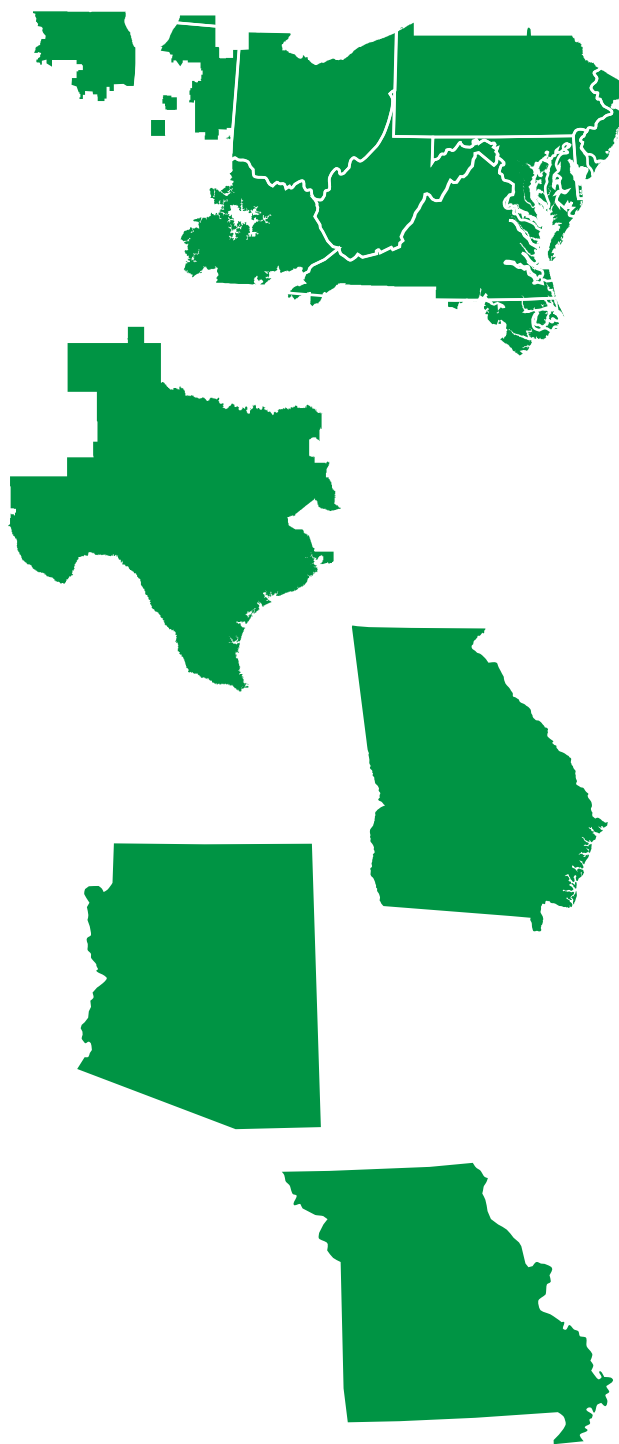
E3's analysis of more than 10 different studies shows that rising electricity bills are not solely the result of a rise in data center development. The financial pressures on our energy system are complex, rooted in broad economic trends and factors, and the transition to a more modern and resilient grid is a work in progress.

E3 recommends the **following approach to create a framework** for responsible load growth. With thoughtful, market-specific approaches, policymakers can support economic growth while protecting customers and ensuring fair cost allocation.



- Strengthen planning and forecasting.**
- Leverage tailored large load tariffs and align cost allocation with the pace of load growth.**
- Enable innovative supply and load integration models.**
- Close analytical gaps with both targeted and more quantitative analysis.**

How Energy Markets Across the US Address Load Growth and the Surge in Power Demand



- **PJM Market:** Recent capacity price spikes have reflected tightening supply conditions. PJM responded by advancing proposals to reform its market and processes. The 13 PJM-state governors and federal officials issued a [Statement of Principles](#) calling for more immediate and structural reforms.*
- **Texas:** Has experienced significant load growth in recent years and lawmakers developed specific policies without disproportionate retail rate increases for households and businesses to date.
- **Georgia:** Regulators have responded to the state's rapid data center growth by strengthening long-term contract requirements and minimum billing protections to reduce stranded cost risk.
- **Arizona:** Regulators and utilities are refining rate design and contractual protections to better reflect cost causation and risks, driven by the rapid and large-scale load growth from data centers.
- **Missouri:** Due to emerging data center growth, Missouri is one of several emerging markets that has proactively established large load tariffs and long-term contractual requirements to preempt cost shifts and mitigate stranded cost risk.



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