# 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