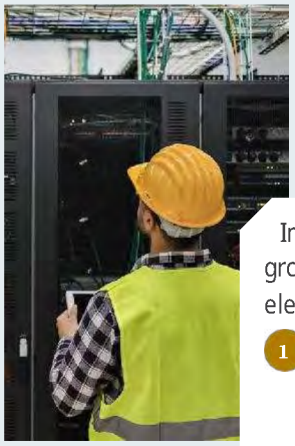
Executive Summary

The relationship between load growth and electricity retail rates is more complex than often conveyed in public discourse. Retail rates reflect a combination of generation, transmission, distribution, policy, and market dynamics – not simply changes in demand- and while load growth can influence system costs, it is only one of many factors. Understanding the role of large loads requires a more nuanced, evidence-based assessment that accounts for these multiple interacting drivers, and is especially important context when identifying ways to manage costs and maintain customer affordability.



E3's review of the few quantitative analyses on this topic did not yield evidence that other utility customers are subsidizing data centers.

- Notably, E3's study for the Joint Legislative Audit and Review Commission (JLARC) in Virginia – the world's largest data center market – found no evidence of a historical or present-day cost shift from data centers to residential or small commercial customers.
- Moreover, some studies found data centers can potentially *lower* electric rates for other customers, by paying not only the incremental cost to serve them but also paying embedded fixed costs, which can be used to create downward pressure on rates. An E3 study examining Amazon data centers across four diverse utility territories found, on average, each site generated $3.4 million in net surplus (i.e., revenues exceeding costs) that could help offset costs for other customers.
- More broadly, E3 found no clear relationship between load growth and rising electric rates. In the economic consulting firm Bates White's recent study, states such as Texas and Virginia with the *largest* increases in load (largely driven by data centers) had the smallest rate increases, while states like California and New York saw the largest rate increases but a reduction in load. Lawrence Berkeley National Lab's (LBNL) recent study found similar results, except in the PJM region.
- A recent working paper from Georgia Tech identified a small increase in electricity retail rates on average across a subset of US counties after initial data center entry, but further investigation into rate dynamics and other regional differences is required to more definitively estimate the impact of today's large load clusters.
- E3 conducted an analysis of the change in capacity prices between PJM's 2024/2025 and 2025/2026 auctions and found that load growth (primarily data centers) accounted for ~50% of the increase while other changes, such as market design updates and power plant retirements, drove the other ~50%.

In its review, E3 found a number of factors, beyond load growth alone, have been major contributors to rising electric rates:

1. **Inflation:** Recent inflation has significantly increased the cost of labor, materials, and financing, directly increasing the amount of revenue utilities need to collect to recover their investments.
2. **Natural Gas Price Volatility:** Natural gas prices have become more volatile and regions reliant on gas-fired generation are particularly exposed to this price volatility.
3. **Wildfire Mitigation and Resilience Investments:** Wildfire-related mitigation spending and grid hardening more broadly now represent a significant and growing share of utility spending to respond to and protect against extreme weather events.
4. **Grid Modernization:** Utilities have increased investment to replace aging infrastructure, comply with policies, and modernize the grid.
5. **Market Design and Supply Dynamics:** In wholesale markets such as PJM, capacity price volatility has also been driven by market design and supply-side factors, including power plant retirements, reduced accreditation of fossil resources, higher reliability targets, planning/forecasting gaps, regulatory lag, permitting barriers, and interconnection backlogs.