A recent study by the Lawrence Berkeley National Laboratory (LBNL) analyzed state-level trends across retail electricity prices from 2019-2025 (inclusive of the residential, commercial and industrial sectors).[26,27] Generally, the study also found that states with the highest load growth saw declining average retail prices between 2019-2025, with prices increasing in states experiencing load declines. Specifically, North Dakota, New Mexico, and Nebraska saw substantial commercial and industrial (C&I) load growth but saw lowered residential and C&I prices. However, PJM was the exception to this trend, with data centers found to be one of multiple factors contributing to increasing capacity prices between the 2024/2025 and 2025/2026 auctions (which is further discussed in this paper's PJM Market Overview); the study also notes capacity prices are one but not the only contributor to retail rate price increases.

An E3 study funded by Amazon analyzed data from Amazon data centers across four utility territories (Pacific Gas & Electric in California, Umatilla Electric Cooperative in Oregon, Dominion Energy in Virginia, and Entergy in Mississippi), selected to reflect a diverse range of geographies and market structures.[28] To assess the data centers' impact, the analysis compared each facility's electricity payments (i.e., utility revenue) to the utility's marginal cost to serve the facility.

Across all case studies, Amazon utility payments met or exceeded the incremental cost to serve, producing neutral to positive outcomes for other utility customers, such as downward rate pressure. On average, each facility generated $3.4 million in net surplus (i.e., revenues exceeding costs) that utilities could use to reduce rates for other customers, but implementation may vary by jurisdiction. Results were similar when projecting to 2030 as well, with surplus value of up to $6.1 million per 100 MW data center.[29] This surplus arises because much of a utility's network and public policy costs are fixed; adding large, high-load factor loads like data centers spreads those costs over more usage (i.e., kilowatt-hours), the amount of revenue the utility must collect from other customers and thus reducing their cost burden. Accordingly, the analysis found no evidence of cross-subsidization on an individual data center basis and that the evaluated facilities can actually produce benefits for other customers.

The study does caution that due to pace and scale of this load growth (both on an individual facility basis and in the aggregate) and tightening supply, utilities must keep pace and leverage the full range of risk mitigation tools available to them to continue to prevent cross-subsidization. The paper outlines key tools to consider and provides guidance on selecting among them based on factors such as utility size, market structure, scale of load growth, risk approach, etc.

These factors are critical because how large loads are integrated into the grid determine their impact on retail prices. For example, rates could rise if utilities invest in costly infrastructure to integrate new loads that later fail to materialize or underperform; as discussed in the next section, such risks can be simply and effectively mitigated through rate design and other risk mitigation tools. Conversely, large loads can help reduce rates by spreading fixed costs over their high usage, as illustrated above, and/or by minimizing their impact on the grid, such as by curtailing their demand during periods of grid stress.[30]

Utilities have seen data center growth create downward pressure on electricity rates by improving system utilization and spreading fixed costs across a broader demand base. Xcel Energy CEO Bob Frenzel explains the underlying mechanism: "if you put more units of production through a fixed asset, the rate for everybody comes down. A large data center load on your system should, all things being equal, drive prices down for electricity, not up."[31] In Georgia growth is expected to place downward pressure on residential bills of $8.50/month from 2029-2031, and in Michigan residential costs are expected to lower by 8% due to recently approved data center contracts.[32] In more illustrative terms, the South Carolina Power Team shared that "in 2024, Google paid the equivalent of 136,000 residential homes to our fixed costs. That's 136,000 homes that we'd have to bring into our system to offset what they're bringing to us. If they're not here, those costs are spread amongst all of our members. The economic impact and benefit for our system is just huge."[33] Pacific Gas

[26] Wiser, R., O'Shaughnessy, E., Barbose, G., Cappers, P., & Gorman, W. (2025). *Factors influencing recent trends in retail electricity prices in the United States. The Electricity Journal, 38(4)*, Article 107516. https://doi.org/10.1016/j.tej.2025.107516

[27] Wiser, R. H., Barbose, G. L., Gorman, W., O'Shaughnessy, E., Forrester, S., Donohoo-Vallett, P., Cappers, P., Deason, J., Hledik, R., & Lam, L. (2026). *Retail electricity price trends and drivers: Data update—2026 edition*. Lawrence Berkeley National Laboratory. https://eta-publications.lbl.gov/sites/default/files/2026-03/retail_price_trends_2026_edition.pdf

[28] Riu, I., Patel, K., Mettetal, L., Santoni-Colvin, M., Greszczuk, S., Cardona, J., Bertrand, L., Spencer, S., & Ramirez, S. (2025). *Tailored for scale: Designing electric rates and tariffs for large loads*. Energy and Environmental Economics, Inc. https://www.ethree.com/wp-content/uploads/2025/12/RatepayerStudy.pdf

[29] The projections evaluated Amazon data centers in isolation, without modeling underlying system changes to supply and demand. For the 2030 projects, current rate constructs were extended to develop bookend scenarios to illustrate the range of impacts under various resource assumptions.

[30] Borenstein, S. (2025, September 29). *What will data centers do to your electric bill?* Energy Institute Blog. https://energyathaas.wordpress.com/2025/09/29/what-will-data-centers-do-to-your-electric-bill/

[31] Bob Frenzel, Chairman & CEO, Xcel Energy, remarks on data center load and electricity pricing, *Finance & Commerce*, 2026. https://finance-commerce.com/2026/01/xcel-energy-ceo-data-centers-lower-electricity-costs/

[32] Wiser, R. H., Barbose, G. L., Gorman, W., O'Shaughnessy, E., Forrester, S., Donohoo-Vallett, P., Cappers, P., Deason, J., Hledik, R., & Lam, L. (2026). *Retail electricity price trends and drivers: Data update—2026 edition*. Lawrence Berkeley National Laboratory. https://emp.lbl.gov/sites/default/files/2026-03/Retail%20Price%20Trends_2026%20edition.pdf

[33] James Chavez, President & CEO, South Carolina Power Team, remarks on Google load contributions and fixed cost recovery, 2025.