

Overview of Approach



This paper applies a structured, evidence-based approach to evaluating the relationship between data center load growth and electricity rate outcomes. It begins with a primer on how electric systems are planned, financed, and regulated, including how utilities forecast demand, make investment decisions, and recover costs through retail rates. This foundation is critical for interpreting existing studies, as retail electricity prices reflect a combination of generation, transmission, and distribution investments, market dynamics, and regulatory processes rather than changes in load alone.

Building on this foundation, the paper reviews the available quantitative research from 11 studies on recent electricity rate trends and the role of data centers, drawing from both backward-looking empirical studies and forward-looking analyses. This review is complemented by interviews with four industry experts to provide additional context on how these dynamics are evolving in practice. Taken together, these inputs are used to develop a structured lens for evaluating when and how large load growth may influence affordability outcomes, including the role of system cost impacts, cost allocation, and rate design. The paper also highlights the range of tools available to mitigate potential risks, emphasizing that outcomes depend not only on load growth itself, but on how effectively policy, planning, and regulatory processes adapt over time.

