Appendix

A.1. Overview of Quantitative Studies Reviewed

Study Authors and Name	Year	Forward or Backward Looking	Study Type	Geographic Scope	Relevance to Whitepaper	Limitations
Bates White, "Leveraging large loads to improve the U.S. electricity system," February 2026	2026	Backward-looking	Quantitative	United States	Relevant for assessing the relationship between load growth and retail electricity prices across states, showing no clear relationship between data centers and rate increases.	Relies on high-level state comparisons and correlation analysis; does not establish causality or isolate data center-specific impacts.
EPRI, "Powering Intelligence 2026: Updated Scenarios of U.S. Data Center Electricity Use and Power Strategies," February 2026.	2026	Forward-looking	Quantitative	United States (mainland state-level analysis)	Highly relevant for whitepaper discussion of load growth, peak demand, state concentration, and supply strategies.	Relies heavily on project pipeline and public announcement data, which the report itself notes may overstate or misstate realizable development. Findings depend on assumptions about PUE, utilization, ramp-up, and completion rates, and some projected sites may not be built as announced.
Federal Reserve Bank of Dallas, "Data center boom expected to raise electricity component of PCE inflation," March 2026.	2026	Forward-looking	Quantitative, comprehensive wholesale electricity price model (using hourly unit commitment) and scenario analysis	United States	Relevant for discussing downstream electricity price and inflation impacts of data center load growth.	Focuses on inflation and retail electricity prices rather than broader system planning or siting issues affected by transmission connection cost. Results are scenario-based and sensitive to assumptions about data center build-out, utilization, renewables growth, specific customer allocation of added cost and pass-through from wholesale to retail prices. An implicit keeping the status quo regulations assumption might overstate actual wholesale price and inflationary effect of DCs as these costs could be fully allocated to new large loads, while an absence of accounting for grid connection and upgrade costs may understate their impact on consumer retail prices and inflation.
Georgia Institute of Technology, "The Local Economic Effects of Data Center Entry," March 2026.	2026	Backward-looking	Quantitative econometric study using a staggered difference-in-differences framework	United States, county-level analysis	Relevant as one of the few recent econometric studies that tests whether data center entry is associated with changes in local electricity prices. The paper finds early evidence that data center entry may place upward pressure on electricity prices in some lower-spillover county settings, while also emphasizing the difficulty of identifying broader long-term rate impacts.	The paper's main contribution is broader local economic effects, not electricity prices specifically. Its electricity-price analysis is constrained by utility service territories spanning multiple counties, which makes clean causal identification difficult and can weaken the measured effect. The authors only detect positive price effects in lower-spillover settings pointing to smaller utility territories, while the full-sample result is noisy. In addition, the median first-entry facility in the sample is relatively small—10 MW nameplate, or roughly 1.2% of the median serving utility's annual load—so the study is better viewed as early indicative evidence than as a definitive estimate of the rate effects of today's large load clusters.