NCEL Issue Brief

DATA CENTERS

2025

CLIMATE & ENERGY

Overview

Electricity demand is projected to rise significantly in the next few years throughout the U.S. Data centers are one of the major drivers of this demand growth and, because of their rapid development and significant power demand, present new challenges for grid reliability, affordability, and decarbonization.

Data centers' impact on the grid is becoming more ubiquitous, as many facilities have operationalized or are in the process to operationalize in the next few years. In contrast, the process to deploy generation resources and build new transmission can take far longer. While some data centers have requisitioned their own generation, most are relying on the grid as is, increasing the likelihood of outages. These reliability concerns are incentivizing grid and transmission operators to make costly infrastructure upgrades to meet this new load, which in turn are causing higher costs for all ratepayers. As data centers continue to grow, state legislators are exploring policies to mitigate impacts on costs, emissions, air pollution, and grid reliability.

*(bills following two asterisks "**" indicates bipartisan sponsorship)*

Transparency

Currently, there is limited information available about how large data centers are operated. Understanding the specific power needs of individual data centers is essential for grid operators, utilities, and policymakers to prevent over- or under planning infrastructure upgrades to meet this new load. States can require additional data sharing for both planned and existing data centers.

- **Texas SB 1929 (enacted 2023):** Requires cryptomines that consume more than 75 MW of power to register with the Public Utilities Commission (PUC) and ERCOT; mandated reporting on energy usage and individual facilities' load growth projections.
- **Georgia HB 1192 (passed by House and Senate, vetoed by Governor 2023):** Creates a Special Commission on Data Center Planning that would study and plan for the energy and grid needs, plus their associated costs, for data centers, producing recommendations for regulators and policy makers.

Ratepayer Protection

In the years it can take for grid infrastructure upgrades to be completed, a data center might close or relocate—leaving local ratepayers on the hook to pay for now unnecessary upgrades. States can restructure their ratemaking and cost-sharing mechanisms, implement contracts, and set fees to ensure other raterpayers, especially residents and small businesses, don't pay for new generation, and grid infrastructure that primarily serves data centers.

- **Georgia SB 34 (reported favorably from Committee, 2025):** Prohibits passing any grid or energy costs incurred solely for serving data centers onto ratepayers.
- **Oregon HB 3546 (enacted 2025):** Creates a new customer class for large load users and requires them to sign a 10-year contract and pay a minimum amount for generation and infrastructure.

Demand Side Solutions

While data centers consume large amounts of electricity, meeting this demand doesn't need to rely solely on building new power plants. States can also employ strategies such as industrial demand response programs, which compensates or requires large electricity loads to reduce their usage during periods of peak energy demand. By making data center energy use more flexible, states can avoid costly infrastructure buildouts while increasing reliability.

- **Texas SB 6 **(enacted 2025):** Empowers ERCOT to cut power to large loads, such as data centers, during grid emergencies.

- Virginia HB 2578 **(introduced 2025):** Directs utilities to petition the State Corporation Commission for approval of a large load demand response program. Directs the State Department of Energy to develop a strategic plan for data center heat reuse.

Clean Energy Requirements

Because of their massive energy consumption, data centers pose significant risks to state decarbonization and air pollution goals, as states feel pressure to maintain and expand fossil fuel use to meet high demand. However, states can require data centers to get at least a portion of their energy from renewable sources.

- **Minnesota HF 16 **(enacted 2025):** Requires utilities to provide a clean energy tariff to data center companies. Creates an annual fee of between $2 million and $5 million on data centers, with funding going towards weatherization and energy upgrades for low-income residents.

- New Jersey S 4143 **(reported favorably from Committee, 2025):** Requires data centers to derive all their energy from renewable or nuclear sources.

Other Resources

- ***Turning Data Centers into Grid and Regional Assets: Considerations and Recommendations for the Federal Government, State Policymakers, and Utility Regulators*** **| American Council for an Energy Efficient Economy (ACEEE)**

- ***Big Data Centers, Big Problems: The Surging Environmental and Consumer Costs of AI, Crypto and Big Data*** **| Frontier Group, US Pirg, and Environment America**

- ***Extracting Profits from the Public: How Utility Ratepayers Are Paying for Big Tech's Power*** **| Harvard Electricity Law Initiative**

- ***Utility Briefing Book*** **| NCEL**