

Data Centers and Large Loads

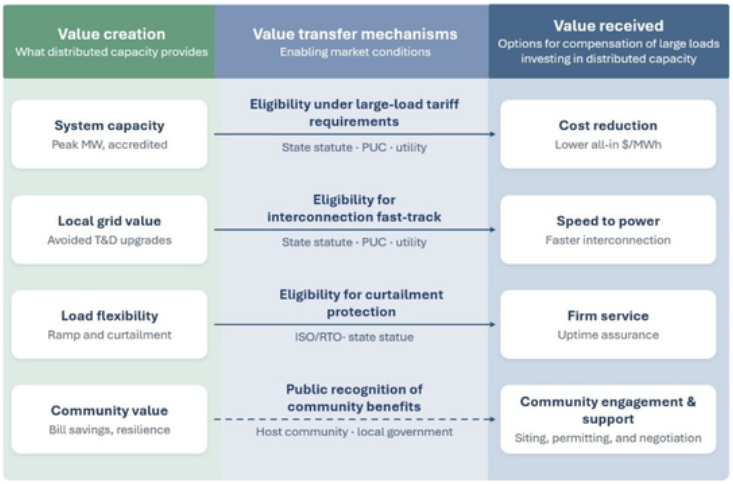
A Resource Toolkit from RMI | November 2026

The surge in data center demand is a chance for regulators to shape load growth in a way that strengthens the grid and protects ratepayers. Seizing that opportunity spans Virtual Power Plant (VPP) investment, tariff design, and creating faster paths to grid connection.

States are Opening the Door to Data Center Investment in VPPs

Distributed capacity offers several benefits to utilities and customers in this current moment: it's faster to deploy than conventional generation, can result in net system and bill savings for customers, and is flexible and modular in the face of uncertain demand. New RMI research summarizes how states and grid operators are building pathways for data centers to invest in virtual power plants (VPPs) and flexible, distributed capacity and receive value in return:

Example transaction mechanisms between distributed capacity and large load customers



- Some states, such as Kansas, Minnesota, Nevada, and Oregon are creating new ways for data centers to fund distributed capacity through utility large load tariffs and contracts, helping bring additional resources onto the grid to serve growing demand.
- Others, such as New Jersey and Virginia, are defining pathways for data centers to procure distributed capacity or capacity credits that count toward their capacity needs, and potentially create a pathway to faster grid interconnection.

Large Load Tariffs Dashboard

In the last 2 years, over 100 large load tariffs have been filed across the US, establishing new rate classes for large load customers. RMI develops resources and provides technical assistance to regulators and advocates to realize a large load tariff framework for states that includes:

- **Baseline large load tariffs** that establish a large load customer class and ratepayer protections to reduce stranded asset risk, interclass cost shifting, and curtailment for non-participating customers, like Pennsylvania's model tariff.
- **Bring your own (BYO)** capacity pathways focus on enabling large load customers to fund new, additional resources, supporting resource adequacy, insulating other ratepayers from costs, reducing system prices, and providing system benefits, like GA Power's Customer Identified Resource Tariff.
- **Non-firm service** options that allow large loads to provisionally or permanently accept defined curtailment obligations for reduced rates, capacity obligations, and time to energization.
- **Enhanced large load forecasting practices** to reduce impacts from speculative service requests on system planning, including stranded asset risk.

RESOURCE
Large Load Tariffs Dashboard

BRIEF
Planners Have Tools to Manage Large Load Forecast Uncertainty. Are They Working?

The Case for Grid-Connected Data Centers

Data centers are increasingly turning to behind-the-meter gas because grid connection can take too long. But that speed comes with significant costs for emissions, affordability, and the broader power system. RMI finds that grid connection can offer a cleaner, more affordable long-term path — if utilities and regulators can make it faster.

Grid connection is substantially cleaner. RMI estimates that serving projected 2030 data center demand from the grid instead of behind-the-meter gas could reduce associated greenhouse gas emissions by 43%. Many proposed behind-the-meter projects can create additional methane and local air pollution risks.

Grid power is generally more affordable. Across eight large-load tariffs reviewed by RMI, grid electricity costs roughly $55–$115/MWh, compared with estimated all-in costs of about $100–$165/MWh for behind-the-meter gas. Large-scale behind-the-meter gas development could add substantial new gas demand and increase exposure to fuel-price and pipeline risks.

The challenge is speed. Regulators can help narrow the speed gap by:
- Fully implementing a large load tariff framework for states that includes non-firm service and bring your own (BYO) resource tariffs
- Considering fast alternatives to conventional network upgrades such as batteries, grid-enhancing technologies, and demand flexibility

ARTICLE
The Case for Grid-Connected Data Centers

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