

The Rural Electric Cooperative Response to Data Center Growth

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March 2026

Power demand from data centers has thrust the U.S. utility sector into the highest period of [electricity growth](#) in 25 years. This trend has received [significant attention](#), but too often left out of the conversation are America's rural electric cooperatives.

Like their investor-owned peers, cooperatives are being [approached](#) regularly by data center developers and many are actively trying to attract projects, viewing data centers as a potential growth engine for their rural communities' employment and tax base. They are also seeing pressures from their member-owners who are [wary](#) of the risks of new large loads to energy costs, noise, pollution, and water use.

It is important for cooperative leaders to understand these risks and to develop tools to protect their utility's finances and the pocketbooks of the families, small businesses, and farms they serve. Getting these decisions wrong can have significant [affordability](#), [environmental](#), and [reliability](#) impacts.

This paper outlines three geographic case studies where rural electric cooperatives are grappling with data center decisions and, from a wide set of cooperative examples, shares practical tools that cooperative leaders can use to protect their existing footprint as well as false solutions to avoid. Rural cooperatives can navigate data centers successfully with good planning and protections — but doing so will require a holistic system view and clear-eyed problem solving in order to protect member-owners.

We highlight cooperatives in three critical geographies for data center expansion: Texas, Georgia, and Virginia. Each state's data center and electricity markets are radically different. Yet we observe similarities across state lines: focused conversations on appropriate pricing, wariness over who will hold the project risk, heartburn over becoming overreliant on a few big customers, and actions that put energy transition goals at risk.

A common theme is navigating an uncertain landscape. The hyperscale boom has been highly speculative, with project developers scouting sites in multiple jurisdictions in parallel and many parties making promises they may be unable to keep in order to move quickly. The data center boom requires significant capital expenditures to build AI infrastructure, yet AI revenues are much more uncertain. This could lead to high stranded asset risk.

For those cooperatives whose territory is being swamped by data centers, they are at risk of both underbuilding generation to maintain reliability standards as new large loads interconnect and overbuilding generation should load growth not materialize or remain stable over time. Utilities are walking a tightrope.

We also find some bright signs across these case studies, with innovative financing arrangements and risk-mitigation strategies that may allow data centers to supplement and improve cooperatives with an influx of capital expenditures without putting the overall cooperatives and their member-owners at risk. These arrangements include directly-attributed cost structures, subsidiaries, and special rate designs. In addition, some cooperatives are working directly with data centers to steer valuable dollars towards renewable energy and grid modernization.

We hope these case studies and the tools discovered can be a useful guide for cooperative leaders when data center developers are knocking at their door.

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The Cooperative Data Center Toolbox

From the case studies we identified and other data center reading, we have identified a set of tools and approaches that cooperatives have used to guide data center development.

Data Center Solutions: *Those highlighted in green are strong ideas that we believe could be applicable to other regions and cooperatives. Those in yellow are good starts, but not enough to protect member-owners. Finally, those highlighted in red are potentially damaging. More on each of these solutions can be found below in the section, “Solutions to Learn From.”*

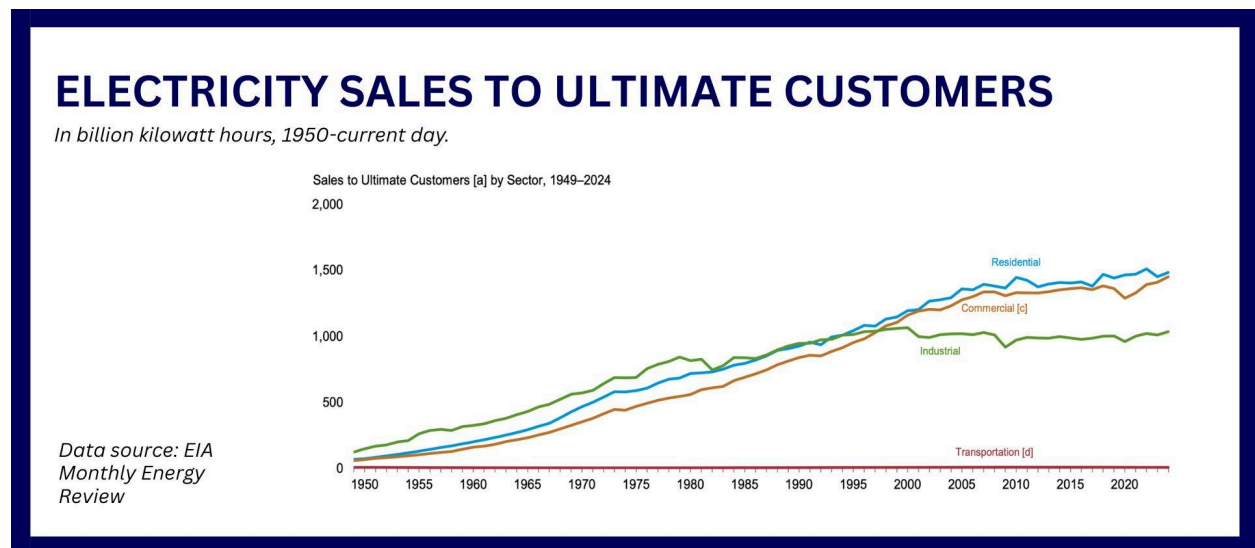
Proposal	Description
Direct Cost Allocation	Direct cost allocation requires data centers to pay directly for any costs they require the cooperative to incur, including the costs of grid and systems improvements. This is in contrast to embedded cost allocation, which risks placing new grid costs on existing families, businesses, and farms.
Subsidiaries	Cooperatives can establish new subsidiaries to deal with large load customers to protect the cooperative’s baseline solvency.
Load Flexibility	Cooperatives can negotiate load flexibility from data centers — either at the data centers itself or by requiring the data center to support investment in member-owner virtual power plants or demand-response programs. Load flexibility can shave peak demand, lowering system costs on the highest stress days. This ask is increasingly necessary for cooperatives and other utilities that are facing immediate capacity challenges.
BYO New Clean Generation	Customers can be required to bring their own new clean generation, either in front of or behind the meter. Cooperatives can require customers to bring a certain amount of new generation online to get interconnected.
Transparency	Most data center deals happen behind closed doors. Greater transparency in process can help both streamline decisions and ensure that member-owners are included in decisions that impact their community and understand the benefits and risks of any new project.
Deposits	Cooperatives can require a large load customer to maintain a deposit equal to multiple months of their highest monthly energy bill. This can help defray the risk of stranded assets.
Special Tariff Class	Cooperatives can place data centers in their own class of ratepayers (or in a class with other large industrial users). This can be inadequate on its own — but powerful if paired with additional requirements for the rate class.
Upfront Payment	Requires data centers to pay upfront for the costs of distribution and transmission infrastructure.

Proposal	Description
Embedded Cost Allocation	Through embedded cost allocation, a utility recoups the costs of investment over time by counting on data center rates. This approach has a higher risk of member-owners paying for stranded infrastructure should the data center’s demand change at any point in the future.
Contracting or Wholesale Power	This is a two-edged sword: on the one hand, it protects cooperatives from the risks of potentially overbuilding on capacity, insulating them from stranded asset risks. However, these contracts and wholesale power purchasing fluctuate dramatically in price with market conditions, potentially putting families at risk of higher costs.

On Data Centers & Rising Electricity Demand

Rising Electricity Demand

Electricity demand in the U.S. rose well throughout the second half of the 20th century as more Americans were connected to the grid, modern amenities became more accessible, and the population boomed. Since the turn of the century, this growth in power usage has flattened due to efficiency gains and slowed industrial growth — leading to roughly two decades of flat demand and consumption. Data centers have reshaped this calculus.



Source: [Energy Information Agency, Monthly Energy Review, Table 7.6](#)

Today, electricity demand is again on the rise. This is driven by several intersecting trends: growth in air conditioning demand, transportation electrification, the electrification of home appliances, and electrification of manufacturing. Beginning in 2022, however, the driving demand signal has come from new data centers, particularly to advance AI technologies.

To note, electricity growth in and of itself can be a benefit for the energy system. Electricity can provide cleaner, more affordable power to end users as the electrification of end uses typically met by direct combustion displaces demand for volatile and dangerous fuels. This is particularly true when utilities take advantage of renewable energy and storage, which is both the most [economical energy source](#) and often the fastest to deploy in most U.S. geographies. Increased electricity demand can also help socialize the costs of the grid across a higher user base — helping bring new capital to needed grid repairs and systems upgrades.

Yet amidst increased demand for power-hungry digital processes and electrification, power generators, grid operators, and energy distributors are feeling the crunch today. Though projections vary by source, the energy world is [agreed](#): electricity demand and consumption will increase dramatically in the coming years. This demand growth will likely translate into significant changes to power markets and the price of electricity.

Navigating new large loads for data centers is increasingly a critical skillset for any utility.

Data Centers & Their Electricity Needs

Understanding the particularities of data center loads is critical. The U.S. is the world's [largest](#) data center market. Data centers are warehouses filled with computers that run cloud services, from video streaming to AI applications to everyday online information. With the AI boom, data centers today are [significantly](#) larger than they have been in the past, driven by hyperscaler demand. Hyperscale facilities [draw at least](#) 100MW of power, enough electricity to power 80,000 homes. Now, the biggest facilities are [projected to demand](#) upward of 1.2GW of energy when complete.

As data centers have shifted from more traditional computing loads to AI servers, facilities have also adopted higher utilization rates¹ than earlier generations of data centers, particularly for data centers that are used for training AI models. AI models can roughly be sorted into two buckets: inference (or general) models and training models. Inference models deploy AI capacities toward specific tasks; training models hone the AI models themselves.

¹ Utilization rates for data centers are the average power draw as a percentage of max power demand.

AI MODEL TYPES

AI Data Centers will be optimized for specific models and will have load profiles specific to their model needs.



Inference (General) Models

- High electricity utilization rates, but less high than training models
- More shiftable loads
- Lots of data; lots of compute
- Proximity to users matters greatly (latency)
- Connectivity to existing cloud & internet infrastructure is a benefit



Training Models

- High electricity utilization rates, resemble industrial loads
- High power density
- Uninterruptible loads once begun
- Lots of data; lots of compute
- Doesn't require high latency or proximity to users
- Benefit from ambient cooling

Promisingly, there are active efforts to integrate greater [load flexibility](#) for data centers. When data centers are able to temporarily reduce their power consumption from the grid, they can help grid managers relieve system stress. Data centers can do this through on-site generation, shifting their workloads, or scaling back operations. Proactive planning for flexibility can give data centers a faster route to interconnection by avoiding some costly upgrades.

Data center construction, for some time, was largely focused in certain primary markets, including parts of California, Texas, Georgia, and — most of all — Virginia. As these primary markets become more expensive and saturated, developers are scanning communities across the U.S. for sites with access to plentiful electricity, water, and land. This includes rural markets served by cooperatives.

As one cooperative representative [said](#) at TechAdvantage: “You’ll have a data center approach a co-op, and maybe they’re not just looking in that area, but they’re looking all over. They’re coming to the table asking, ‘How quickly can you get me online? How quickly can you serve me?’”

Rapid Growth Risks to Rural Cooperative Utilities and Their Communities

As rural communities across the country are learning, data center development is often [unpopular](#). As electricity costs have [skyrocketed](#) for families, new large loads have been cast to blame — rightfully in many places, as scapegoats in some — for increased costs.

RISKS FROM DATA CENTERS TO MANAGE



- **Financial Risks** – Costly new investments in generation and grid upgrades can put financial pressures on both utilities and member-owners. An overreliance on single large customers produces an ongoing balance sheet risk should that facility close.



- **Reliability Risks** – Rapid demand increases must be met with new generation resources and grid upgrades to ensure the continued reliable delivery of power; there are likewise reliability risks to large customers should data centers go offline at the same time without warning to the grid operator.



- **Transition Risks** – New rapid demand growth can pressure utilities to punt clean energy goals, expand coal and gas generation, or extend the life of thermal generators slated for retirement, leading to increased pollution and heightened stranded asset risks over the lifetime of those facilities.



- **Local Environmental Risks** – Data centers require significant water demand, a particular risk for farming communities with limited supply. Increased thermal generation can also lead to increased air and water pollution.

Data centers also often have other negative environmental impacts: [noise pollution](#), increased [pollution](#) from thermal energy generators, and [demanding](#) water use. These risks have led to [bipartisan opposition](#) to data centers across the country. Understanding these risks can help a utility mitigate or avoid them.

One pragmatic step that cooperative leaders can take is to outline the risks they seek to avoid and the opportunities they could realize through data center expansion in their community. They can take this analysis to develop a proactive and standardized approach to evaluate data center proposals. Ideally, this approach should be co-developed with input from member-owners who live in the community and have a stake in local projects.

By defining their own systems, environmental, and cost needs up front, rural cooperatives can proactively work to guide development that serves their member-owners and system needs.

Case Studies: Data Center Growth in Texas, Georgia, & Virginia Cooperative Territories

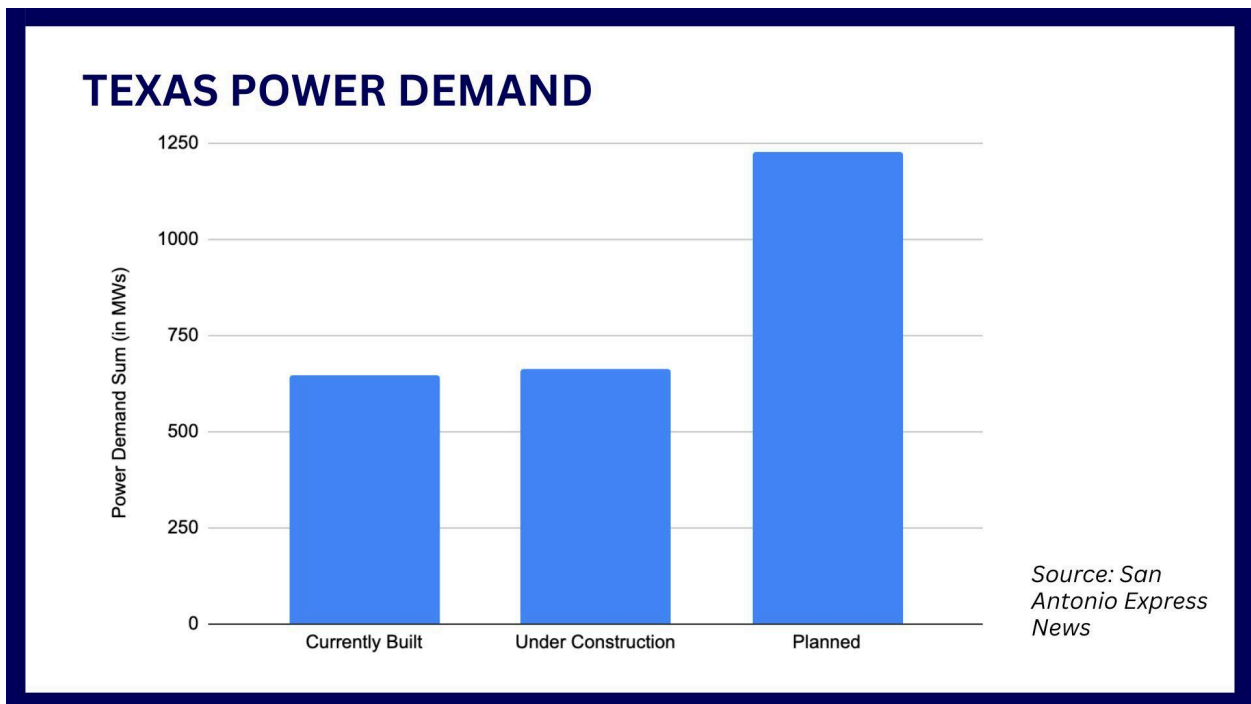
In the following case studies, we have sought to understand state data center market dynamics, the development proposals that cooperatives are seeing, and the response that cooperatives have had to new development proposals.

As will become apparent, the situation is very fluid. Our goal is that this snapshot will shine a light on three critical geographies and offer context for some of the recommendations proposed.

Texas: The Race To Build

Texas’ [76 electric cooperatives](#) deliver power to more than 3 million member-owners, residing in 241 of the states’ 254 counties. Meanwhile, Texas is also one of the fastest growing data center markets in the nation, with ERCOT [projecting](#) that nearly its entire projected peak demand increase by 2031 will come from data centers.²

The San Antonio-Austin corridor has [exploded](#) as a hotspot for data center development — and more and more developers have reportedly chosen electric cooperatives to deliver their power. As of March 2025, the region was home to 646 MW of existing data centers, with [another](#) 664 MW under construction and 1,229 MW of data centers planned.



Though the bulk of the added capacity is likely to be served by the deregulated market, a significant proportion of this load will be serviced by the area’s cooperatives.

The South Texas Electric Cooperative (STEC), a generation and transmission cooperative serving nine distribution cooperatives, cooperative leadership is working overtime to find

² ERCOT’s projections attribute 86GW of nameplate demand growth from data centers and another 11GW from crypto mining by 2031. Adjusted for things like demand-response, utilization, and other factors, ERCOT expects 25GW of data center peak demand by 2031.

generation to meet ballooning load projects. Last year, they [ran](#) an RFP process to procure 500 MW of “firm, dispatchable” capacity, which it directly attributes to rising base load power needs. One of its members, the Medina Electric Cooperative, is [currently](#) in the process of building and deploying energy for a 265-acre data center.

STEC is open to expanding thermal generation sources, but its partners have also used a data center argument to defend Federal cooperative funding for clean energy. San Miguel Electric Cooperative, which [sells](#) power to STEC, owns a coal power plant that it is now [converting](#) into 400MW of solar and 200MWh battery storage system with a New ERA loan. In a letter protesting the potential cancellation of New ERA programs to USDA Secretary Brooke Rollins, San Miguel wrote that the project was needed to support “development of data center loads.”

Like STEC, Rayburn Electric Cooperative is rushing to add as much capacity to its reserves as possible. Rayburn’s President and CEO, David Naylor, said that the cooperative was experiencing nearly 4-5% [annual growth rates](#) even without data centers, and data centers are requiring them to plan to “triple or quadruple our size.” An overwhelming [majority](#) of Rayburn’s existing generating capacity is natural gas — and it is likely to continue adding natural gas or buying from natural gas generators on the open market to service its projected rise in datacenters.

Of note, Rayburn does not have a [single](#) data center customer yet through any of its four member distribution co-ops. It has plans to partner with a 400 MW facility, relatively small by hyperscaler standards, yet it is still planning on quadrupling its size in the next ten years. Its proactive development plans beg the question of who will pay for this expansion should data center customers not materialize?

From STEC to San Miguel to Rayburn, in Texas we see a search for new any new generation — gas, solar, or storage — to meet uncertain but high load forecasts.

Georgia: Deploying Clean Power, Deploying Gas

Georgia is also seeing dramatic growth in its data center market. Atlanta is the nation’s second largest [data center market](#), with growth skyrocketing particularly from 2024-2025 as it added [700MW](#) worth of data centers. While many Atlanta metro data centers are served by Georgia Power, cooperatives have still been navigating spiking demand.

38 of Georgia’s 41 electric cooperatives own two entities, which provide power to the members: Oglethorpe Power and Green Power EMC. Oglethorpe is one of the [largest](#) G&T providers in the country and Green Power was formed in 2001 as a means of procuring and [bringing](#) renewable projects online for cooperatives. A third G&T cooperative, Cooperative Energy Incorporated, [serves](#) five distribution co-ops in Georgia.

Green Power EMC reportedly [leads](#) the country among cooperatives for solar deployment — it counts 1,838 MW of solar generating capacity and another 447 MW under construction, bringing its total to [around](#) 2,300 MW by 2027. In November 2024, Green Power issued an RFP to essentially double the size of its renewable capacity: its RFP [sought](#) 1,100 MW of utility-scale solar and up to 1,100 MW of battery storage, either as standalone projects or paired with solar. It explicitly attributed the need for new resources as a result of “anticipated load growth associated with data centers.”

Many of these projects help technology companies meet their own voluntary clean energy goals. For example, on behalf of Walton EMC, a distribution cooperative, Green Power EMC [partnered](#) with Silicon Ranch and Meta to build a utility-scale solar farm to power a [Meta](#) data center. Such an arrangement — between renewable developer, cooperative, and tech company — is an example of how data center customers can in fact help drive renewables deployment.

Yet the cooperative data center story isn’t complete from just Green Power’s portfolio. Increased demand is also driving the construction of new thermal generation. Cooperative Energy Incorporated also released an [RFP](#) in November to help address its projected demand growth, but was only seeking “non-renewable wholesale power resources” to fill a 1,600 MW gap. Similarly, Oglethorpe Power is dramatically expanding its fleet of generating assets, which it values at \$16 billion. Its expansion plan centers around [two new gas plants](#), priced at \$3.4 billion.

As in Texas, Georgia’s cooperative generation choices show that data centers are reaffirming demand for polluting gas, but also growing demand for new solar and storage.

For some Georgia cooperatives, data centers are quickly moving from demand growth signal to becoming the lion’s share of the cooperative’s revenue base: GreyStone Power has [four data centers](#) being built in its territory, which will account for 50% of the coop’s revenues once complete, according to GreyStone’s CEO.

GreyStone is [projecting](#) an additional 500 MW in load growth over the next 5-10 years on its existing 800 MW peak demand. To mitigate the risk of these large customers’ failing to pay their bills or going bankrupt, GreyStone [requires](#) its data center customers to fully fund any substations and other infrastructure, as well as maintain deposits equivalent to 3 ½ months worth of their highest electrical bills.

Of note, GreyStone’s solution for its potential overreliance on data center customers is a solid start, but inadequate on its own: 3 ½ months of reserves does not fully insulate it from potential failures among its data center customers. It certainly does not insulate it from the effects of an industry-wide contraction or other events.

Virginia: Frontlines of the Data Center Boom

Virginia is the largest market for data centers in the world: it is [home](#) to 35% of all hyperscale data centers and accounts for a significant share of all global internet traffic. Its data center market continues to grow rapidly, but its base is already incredibly large.

The Old Dominion Electric Cooperative (ODEC), a G&T which services 11 cooperatives in Maryland, Delaware, and Virginia, has been crunched by the rise in data centers in its service territory. ODEC says it [generates](#) 80% of its energy obligations itself — and is securing PPAs and other signed contracts with power providers to cover the rest. Notably, a [majority](#) of this purchased power is from non-renewable power — and in 2023, this non-renewable purchased power accounted for 42% of its delivered energy.

To solve for resource adequacy and reliability, ODEC also attempted to get a number of [grants](#) under the New ERA program and has [pushed](#) for additional distributed solar and other energy resources. ODEC has fought [against](#) certain data centers that have sought to co-locate near existing gas generation on the basis that, without transparency, guarantees, or new energy sources, data centers could demand energy resources that are currently meeting other end uses or drive up system costs for other member-owners.

ODEC has also [begun](#) to tell some of its member cooperatives that it will not be able to provide power for certain data center customers, requiring those distribution cooperatives to seek power for those customers elsewhere.

A state Joint Legislative Audit & Review Commission [report](#) on data center-driven load growth in Virginia found that cooperatives across the state are both being squeezed by data centers and finding innovative solutions to address those challenges.

Many cooperatives in Virginia treat data centers as their own class of customers and some directly assign the costs of interconnection and distribution upgrades, such as building a substation, to large users.

The Northern Virginia Electric Cooperative (NOVEC) is one of the [largest](#) cooperatives in the state and serves about 180,000 customers in Northern Virginia. As a distribution cooperative, NOVEC has little by way of power generation assets: over 90% of its capacity is [bought](#) on the open PJM market, [more](#) than half of which is gas or coal. In an attempt to protect its member-owners from the infrastructure and transmission buildout, NOVEC has [developed](#) a billing process that lies somewhere in between embedded cost allocation and directly-assigned costs. NOVEC charges data centers an application deposit, requires them to pay for interconnection costs, and has established a secondary rate-class for large load customers, with limited supply options provided through NOVEC. While its practice of procuring energy on the PJM open market means that it is unlikely to “overbuild,” it also means that NOVEC’s

member-owners—including industrial, farm, small business, and residential customers—are at the whim of the power producers in one of the country's [most expensive](#) wholesale markets, which also recently hit their [price cap](#) in July 2025.

Meanwhile, the Mecklenburg Electric Cooperative uses [directly-assigned](#) cost recovery: it requires its data center customers to pay for interconnection and distribution costs, requires them to sign energy services agreements (ESAs) to pay directly for generation and energy, and it charges fees to recoup fixed-cost investments. Mecklenburg also aims to distribute excess profits from data center customers to its non-data center member-owners.

Cost-assignment is not the only challenge facing Virginia cooperatives. Some are demonstrating the risks of being *overreliant* on income from cooperatives. NOVEC, for example, [services](#) 7 customers with 58 data center buildings. These 7 customers account for 65% of all of NOVEC's electricity sales. It expects to have 178 datacenter buildings by 2035. Already, NOVEC's annual power bills have skyrocketed by 167% in the last 12 years. As a NOVEC representative said, "This continued expansion will harm the average residential and non-data center customer with little to no benefit in reliability of the service they receive."

The data center explosion in NOVEC's territory also means that it is now [projecting](#) to make 95% of its energy sales to data centers by 2035. NOVEC would likely not be significantly impacted by a singular data center customer failing to pay for its electricity rates, given the number of facilities. However, it would most certainly be impacted by a downturn in the tech industry. Or, as is [likely](#) the case in the future as technology improves, it'll be negatively affected by efficiency gains in AI and digital processes that enable more production with less energy, thereby requiring fewer overall electricity purchases from NOVEC.

Embedded in these realities is a governance risk. With NOVEC's overreliance on big-dollar customers, is NOVEC more beholden to its 7 datacenter customers, who account for 65% of its annual revenues (eventually 95%), or to the rest of its 180,000 member-owners?

Also in Northern Virginia, Rappahannock Electric Cooperative (REC) is one of ODEC's member-cooperatives, and [does not service](#) any data centers today. But it has signed contracts to serve over 16 GW of data center load by 2040, a rapid expansion. If just half of the proposed data centers are built, REC is projecting new revenues north of \$50 million weekly. During extreme events, data center revenue could rise to as much as \$200 million.

How Rappahannock derisks this new load is critical. PJM charges utility-customers weekly—meaning if a data center [missed](#) one weekly payment, REC would be in a position to foot a multi-million dollar bill.

As previously mentioned, ODEC (which supplies REC with power) has [told](#) REC that it will not be able to supply power for its data center customers. To mitigate the impact of the data center load growth on its customers, REC has come up with two solutions.

The first is more familiar: it has [filed](#) with the Virginia State Corporation Commission to create a new special rate class for “large load” customers, defining those as customers whose contracted billing demand exceeds 25 MW and whose load factor (or utilization) exceeds 75%. The rate schedule includes the following language:

The ESA term for distribution service shall be negotiable between the customer and the Cooperative, but the term shall be structured to recover the full cost of distribution and/or sub-transmission plant investment, maintenance and operation; and if at any time, the gross installed utility plant required to serve the customer’s load is increased or decreased, the Cooperative reserves the right to adjust the appropriate customer charges to reflect the change in the gross utility plant in service.

In effect, REC is requiring data center customers to sign agreements to directly pay for the cost of servicing their large loads, similar to Mecklenburg Electric Cooperative’s direct-attribution process.

Rappahannock’s second solution is novel. In addition to requiring data centers to pay for the true total costs they force the cooperative to incur, REC also devised a unique way to isolate the risks of delivering electricity to large load customers: subsidiaries.

In January 2024, REC [filed](#) with the SCC seeking permission to establish two subsidiaries: Hyperscale Energy Services LLC and Hyperscale Energy 1. The two subsidiaries would be “load serving entities” in PJM’s markets, and deliver electricity to large loads. Meanwhile, REC’s customers would be largely insulated from the costs and risks associated with serving said loads. This could also potentially protect member-owners in case either subsidiary defaults.

COST ASSIGNMENT FOR LARGE LOADS

Building energy to meet data center load growth and demand is both an expensive and risky endeavor for all kinds of utilities — including for investor-owned, public, and cooperative models of ownership. Broadly, there are two strategies for confronting data center load growth: embedded cost allocation and directly-assigned costs.

Under an embedded cost allocation regime, which is more traditional of utilities and rate design, data centers are placed in a rate class with large industrial power users and charged a certain distribution and generation and transmission rate. Basically, the utility's expenditures to service data centers are passed on to the data centers through their regular, metered payments. However, the embedded cost allocation method has its limits: some costs may be shared with other large industrial power users, and it's hard for large utilities to determine exactly what share of new generating assets, transmission lines, and other infrastructure should be paid by data centers versus existing customers.

The second general option is direct-cost allocation in which power providers assign costs directly to the data center, all inclusive of generation and capacity. In such an assignment of costs, data centers typically pay more than other customers. This method allows utilities to insulate existing, non-data center customers from rate increases.

Cost-allocation methods also exist in between the two poles: utilities can charge data center customers directly for transmission costs, but potentially not for new generation.

How utilities choose to hedge pricing risks is all the more important if a new load represents a significant burden on the existing system and the long-term viability of the new load isn't established. As technology companies are often seeking to site facilities in multiple locations at once and the long-term viability of AI business models are changing daily, there are added uncertainties that should be factored into cost allocation.

Solutions to Learn From

As we observed in each of these three states, the rapid build out of data centers and their associated load growths present significant risks to any energy provider, including rural electric cooperatives. As the artificial intelligence market booms and economic analysts see [signs](#) of a bubble in the data center industry, rural electric cooperatives can look to each other to see the risks they need to prepare for — and some of the solutions that can help them move forward pragmatically.

There are tools for cooperatives to avoid stranded asset risks, “customer capture,” and insufficient generation.

In each market, we see signs of these significant risks. In Texas, we see early signs of stress on electric cooperatives, as data center load growth is projected to explode in cooperative service territory. In Georgia, some cooperatives are showing signs of overbuilding fossil-fired generation, which will turn into stranded assets if load growth fails to materialize as predicted and increases the cooperatives' transition risks. In Virginia, some cooperatives are clearly at risk of "customer capture," or becoming overreliant on data center customers, which threatens existing customers.

While we see warning signs across these three states and certain cooperatives, there are also bright spots and transferable models already in place by innovative and forward looking cooperatives. However, not all solutions are enough on their own, and cooperatives will need to look at a mix of solutions to protect their financial solvency and their member-owners from significant price increases.

We also classify our solutions according to effectiveness. The following solutions are those we believe every cooperative should consider:

- **Bring Your Own New Clean Energy (BYONCE).** By requiring data centers to bring their own new clean energy — likely a combination of solar and battery storage — cooperatives can ensure that data centers are covering the cost of their own generation, not putting pressure on existing generation relied upon by other member-owners, and furthering clean energy transition goals.
- **Subsidiaries.** As modeled by Rappahannock Electric Cooperative in Virginia, subsidiaries can provide a vehicle to insulate cooperatives from significant financial risks should the data center market collapse or significantly decline.
- **Direct cost allocation.** As practiced by the Mecklenburg Electric Cooperative in Virginia, this is a way to both raise revenue for cooperatives and, more importantly, protect member-owners from paying for infrastructure that is built to benefit data centers.
- **Requiring load flexibility.** Though not fully implemented by most cooperatives, flexible loads could potentially save cooperatives from building extensive new generations or encountering sky high wholesale bills when the grid is most under strain. Load flexibility could include new technologies like Virtual Power Plants (VPPs), demand response, load curtailment, and on-site generation during peak-demand events.

Next, we consider solutions that are strong, but inadequate on their own. These solutions include:

- **Deposits and cash reserves.** Cooperatives can require data centers and other large load customers to place a deposit or hold in escrow a certain number of months worth of bill payments to insulate the utility from a customer's potential bankruptcy. These types of solutions are sometimes used in conjunction with minimum payments. This solution

has been used by GreyStone Power in Georgia and NOVEC in Virginia. NOVEC also requires data centers to pay an application fee.

- **Special tariff classes.** These are catching on as state-level policy in multiple states as a way to specially design rate classes specifically for data centers. This has been used by REC and NOVEC in Virginia. Their fairness is in their details.
- **Upfront payments.** Both GreyStone Power and Georgia Transmission Corp. require data center customers to pay for the costs of new infrastructure directly, before any action is taken by the cooperative. This ensures that the cooperative does not hold the stranded asset risk should that infrastructure be underutilized.

Finally, we find two instances of “solutions” that we fear may backfire on cooperatives seeking to insulate and protect their customers from significant harms from the data center buildout, and potential declines in the industry:

- **Embedded cost allocation.** This method depends upon cooperatives utilities recouping the costs of servicing data centers by collecting revenue over time. While embedded cost allocation is a strong model for assigning costs in normal times, we believe that there are significant long-term uncertainties to tech market health and outsized financial risks associated with data centers due to their size. Utilities should be wary of an industry-wide contraction that could prevent data center tenants from meeting their obligations consistently over time.
- **Relying on wholesale power markets.** As practiced by NOVEC in Virginia, some cooperatives procure a majority of their data center power in wholesale markets. While this may protect the cooperative from overbuilding and stranded assets, it also places the cooperative at the whims of the highly volatile, and expensive, wholesale power markets, which are experiencing rapid price increases. This reliance had led, particularly in PJM, to cost pressures on families and small businesses.

Our analysis focuses on safeguarding member-owners from rapid load growth risks, but the larger strategic imperative remains: cooperatives must mitigate transition and stranded asset risks by prioritizing clean energy investment.

We believe that the solution is a self-funding mandate: by requiring data center customers to bring their own generation capacity, electric cooperatives can immediately hedge against certain financial risk and channel investment toward necessary renewable resources, effectively sharing the burden of generation build-out.