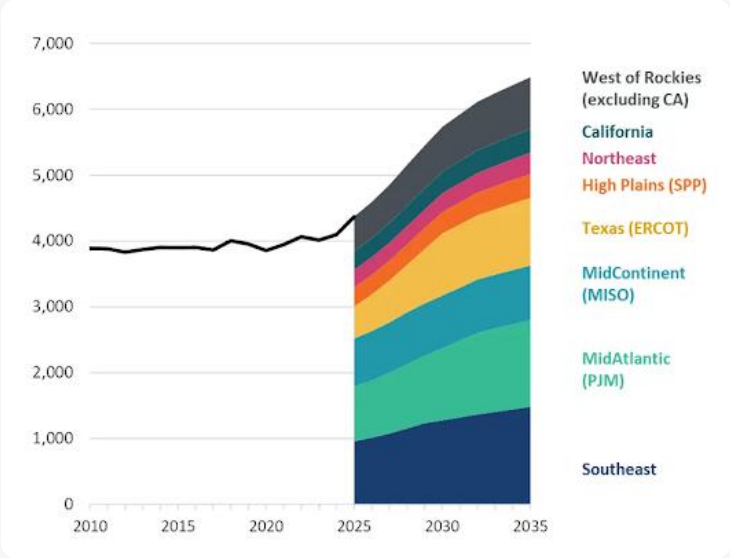
VOTE SOLAR

Right Place, Right Time: Local Solar is Fit for the Moment

Addressing America's Load Growth

The Challenge: Unprecedented Load Growth Demands Urgent, Smart Solutions

The United States faces an unprecedented energy challenge. Driven by data centers, Artificial Intelligence (AI), and electrification, peak electricity demand is projected to surge by 24% by 2030 and 36% by 2035 (Brattle Group). How we meet this new demand will define our climate future. Without a rapid scale-up of clean energy that can supply power at the right time and in the right place, we risk a massive buildout of new fossil fuel power plants, locking in decades of carbon emissions and undermining our climate goals.



Forecast of annual electric use (terawatt hour), based on individual Regional Transmission Organizations' and utilities' most recent forecasts.
Image from The Brattle Group

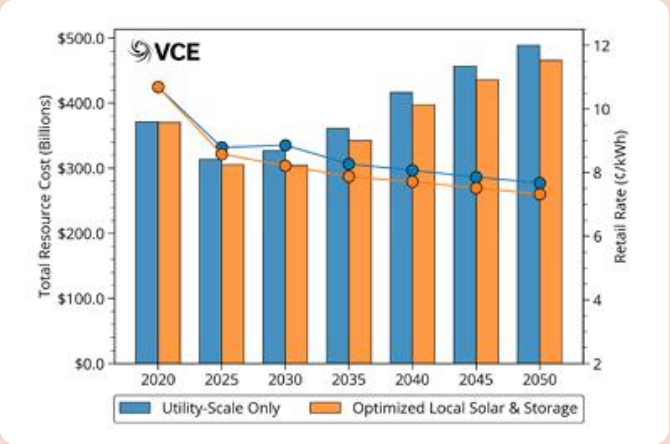
This massive increase could strain our existing grid, threatening reliability and affordability for everyone. While large-scale renewable projects are vital components of a clean energy future, relying solely on them is insufficient. These projects face significant hurdles including decade-long development timelines, permitting roadblocks, and complex political challenges —particularly under the current federal administration.

We need faster, more agile, and cost-effective solutions operating in parallel to meet this demand cleanly, reliably, and affordably.

The Solution: Fast, Affordable, Reliable, and Local Clean Energy

Local clean energy resources, especially solar paired with storage, offer a fast, affordable, and reliable solution to the load growth challenge, and Vote Solar is strategically focused on optimizing this potential. By harnessing power generated on rooftops and in our communities, we can quickly bolster our energy supply, improve grid stability, and reduce costs for everyone—all while ensuring that this new energy demand is met with carbon-free resources. Additionally, because most of the policies that support local clean energy solutions are decided by state leaders, we can avoid the particularly challenging political environment in Washington, DC.

Why is this approach so critical?

BENEFITS	POLICY SPOTLIGHT
Speed and Scalability Unlike utility-scale clean energy mega-projects that take years, local solar installations can be deployed rapidly, often within months, leveraging existing buildings and distribution networks. This speed is crucial to meet near-term load growth and provides essential flexibility while larger resources are developed. Locally sourced solar and storage, also known as distributed energy resources (DERs), can be deployed nimbly, using existing buildings and connected to existing distribution infrastructure—enhancing the use of that infrastructure and putting downward pressure on rates. For instance, by using DERs, New York achieved its ambitious 2019 goal of 6 GW of distributed solar by 2025 a year early, and has been adding more than a gigawatt every year since.	Vote Solar will continue to advocate for the rapid deployment of local solar solutions. We intervene in Integrated Resource Planning (IRP) processes to ensure distributed energy resources are properly accounted for in economic modeling, and that market mechanisms that allow these resources to compete are present. We also work in state legislatures to make the case for fair and predictable compensation, strong clean energy targets, and expanding local solar to more people. These regulations and policies represent a common-sense, affordable, and proven path to meeting rapid energy demand growth with clean energy.
Affordability and Cost Savings Local solar solutions put downward pressure on rates, benefiting all consumers. Aggregated systems (Virtual Power Plants or VPPs) can meet peak energy demand at 40-60% lower cost than traditional alternatives, according to the Brattle Group. Economic modeling from Vibrant Clean Energy found that maximizing local solar and other distributed energy resources could save the U.S. energy system $473 billion by 2050, compared to other clean grid scenarios, and even $88 billion less than a carbon-free future. Furthermore, local generation avoids or defers expensive transmission upgrades; a California analysis showed 5.6 GW of community solar and storage could avoid $910 million in transmission costs alone.  	Vote Solar actively disputes the high-cost practices upheld by electric utilities, and campaigns for ways to bring down energy expenses. Through direct intervention in general rate cases and integrated resource planning, we combat the false narratives utilities use to undermine local clean energy resources, and attack the true drivers of rate increases, like utility profiteering. We match this work with policies that promote solutions including virtual power plants and time-of-use rates—which also directly benefit ratepayers—ensuring our solutions are effective and affordable.

Reliability and Resilience

Local solar paired with storage enhances grid stability and provides crucial backup power during outages, which have been increasing due to grid strain and extreme weather. In an era of escalating stress on our electric system and more frequent and intense extreme weather events caused by climate change, we need real solutions that can be deployed quickly, keep the lights on, and maintain community safety by keeping essential services online. Medium-sized and community solar projects (in the 2-20 MW range), a key focus for Vote Solar, remain popular across political lines and are particularly effective at enhancing grid reliability. Their flexibility, both in location and pairing with energy storage, make them a perfect antidote to many of the electric system's challenges.

Vote Solar goes toe-to-toe with electric utilities to challenge them on the poor quality of service they are providing to all ratepayers, using blackout data analysis and a critical eye on future grid investments. When a true accounting of reliability and resilience needs is part of the regulatory process in general rate cases and distribution system planning, strategic deployment of local solar solutions shines out as the most affordable option.

Broad Benefits

Beyond grid services and community resilience, local solar initiatives leverage private investment to create local jobs, contribute to significantly cleaner air by displacing fossil fuels, reduce greenhouse gas emissions, and offer consumers greater energy choice and control.

Vote Solar will continue to actively promote this narrative, leveraging moments of political and regulatory overreach to make the case for solar as an affordable solution—at the same time taking care to tailor this message for diverse stakeholders and audiences across the country. Having real-world stories to illustrate the benefits of local solar and storage will be critical to accelerating its adoption and maintaining its broad popularity—while avoiding misinformation campaigns that could undermine its support.

While most of these benefits are inherent to local solar solutions, they are not automatic. That's why Vote Solar works on smart policy interventions that include solutions like community solar, non-wires alternatives, and clean energy portfolios to act as force multipliers for broader benefits and as an alternative to fossil-fueled power plants.

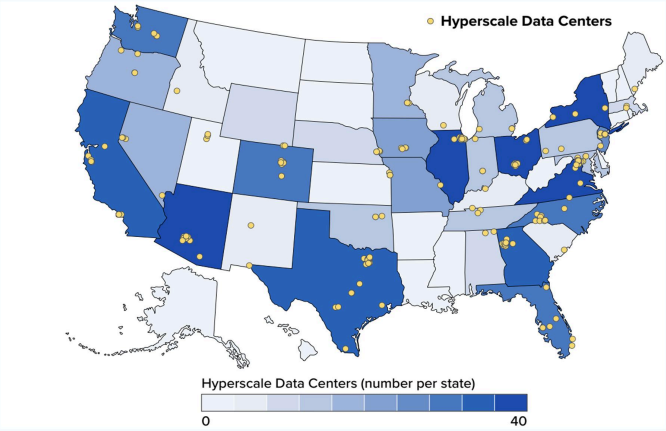
Leading the Charge for a Brighter Energy Future: Vote Solar's Unique Role and Strategy

Realizing the full potential of local solar solutions requires navigating complex policy and regulatory landscapes. It also means overcoming challenges including slow or unfair interconnection rules, inadequate compensation structures, utility pushback against competition—as well as ensuring affordability and access for all customer types, including renters and under-resourced households. This is precisely where Vote Solar excels.

Our strategy in regulatory intervenings is two-pronged—in addition to addressing the negative ratepayer impacts and added costs of continued fossil fuel investments, we aim to demonstrate that more clean energy is the best alternative. We make the case for increasing solar-plus-storage capacity and for larger investments in demand-side management programs for residential and commercial customers. Our team actively participates in hearings, questioning expert witnesses on proposed DER programming, and filing expert testimony to provide evidence that clean energy assets are reliable, more cost-effective for customers, and better for the planet.

Vote Solar is currently intervening in critical regulatory proceedings in many of the states facing the largest influx of new, massive data center developments, including California, Arizona, Colorado, Texas, Illinois, New York, Virginia, North Carolina, Georgia, and Florida.

Number of Hyperscale Data Centers by State (Through 2023)



SOURCE | EPRI, Powering Intelligence (May 2024).

Even amidst challenging political dynamics, our unique approach yields tangible clean energy progress and results in both red and blue states. Some recent stories and successes include:

01 Minnesota Xcel Energy Agrees to IRP Settlement, Creating a Path Toward a Clean, Resilient Energy Future

On February 20, 2025, the Minnesota Public Utilities Commission approved the settlement agreement for Xcel Energy's 2024 Integrated Resource Plan (IRP). The settlement represents an important evolution in Xcel's clean energy transition strategy, emphasizing distributed renewable energy, battery storage, and customer savings and participation. The settlement and the Commission's decision include critical agreements that will solidify Xcel Energy's commitment to reduce reliance on fossil fuels, retire coal plants, address data center-driven load growth, and advance clean and affordable energy.

The settlement agreement authorizes:

- 2,170 MW of new capacity, including 1,152 MW of gas-peaking resources, 380 MW of standalone battery storage, and hybrid solar, wind, and battery projects, while committing to 3,200 MW of wind, 400 MW of solar, and 600 MW of storage by 2030.
- The agreement also leverages $5.7 billion in Inflation Reduction Act (IRA) tax credits to keep annual rate increases below 1%. While avoiding new high-capacity factor gas plants, the settlement maintains flexibility for future clean firm capacity solutions, positioning Minnesota toward carbon-free electricity compliance under state law.

02 Making our Case for Clean Energy in Georgia Power's Resource Plan

Another prime example of our state-level intervention is our ongoing work in Georgia. On January 31, 2025, Georgia Power filed its 2025 Integrated Resource Plan with the Georgia Public Service Commission. An IRP determines the method by which many utilities receive approval from state public utilities commissions for new investments to meet future energy demand. Georgia Power is proposing significant investment in new and existing fossil fuel assets to meet a projected 8,200 MW increase in energy demand by 2030. In response, Vote Solar, in partnership with the local nonprofit organization GA Wand, intervened in this legal proceeding to advocate for cleaner alternatives.

Vote Solar's strategy in Georgia is two-pronged: in addition to addressing the negative ratepayer impacts and added costs of continued fossil fuel investments, our specific role with GA Wand is to demonstrate that more clean energy is the best alternative. We are making the case for increasing the proposed solar-plus-storage capacity and for larger investments in demand-side management programs for residential and commercial customers. Our team is actively participating in hearings, questioning expert witnesses on their proposed DER programming, and, in collaboration with research institutes like PSE Healthy Energy, filing expert testimony to provide evidence that clean energy assets are reliable, more cost-effective for customers, and better for the planet.

Vote Solar aims to sway the Commission's decision towards solutions benefiting all customers and the environment. By illustrating the harmful impacts of fossil fuels and demonstrating the reliability and cost-effectiveness of clean energy, we plan to grow renewable energy on Georgia Power's grid and put downward pressure on skyrocketing home energy prices. Our immediate objective is to expand clean energy options for Georgians. Vote Solar believes these programs will yield data and positive customer experiences, and we will continue to leverage them in future proceedings, building the case for a grid powered entirely by clean energy.

During the previous Trump Administration, Vote Solar made progress toward a clean energy future, and we know we can do it again.

One of Vote Solar's biggest years for generating new solar demand was in 2020, when more than 44,000 megawatts was deployed, equivalent to avoiding 60 million tons of carbon dioxide every year. Other achievements include:

Legislative Breakthroughs

- In 2017, a suite of 11 clean energy bills, including the restoration of net metering, reinvigorated Nevada's solar economy.
- In 2019, South Carolina's Energy Freedom Act removed caps on rooftop solar, expanding opportunities for large-scale renewables and fostering local jobs—a bipartisan victory.

Ambitious State Commitments

- In 2018, Califiornia committed to 100% clean power by 2045, adding 16.2 GW of solar capacity and dedicating over 100,000 systems to under-resourced households.
- In 2019, New York's Climate Leadership and Community Protection Act set a goal of 100% clean electricity by 2040 and the creation of 11,000 solar jobs.

Regulatory Wins

- Thanks to Vote Solar's regulatory action in Montana, the Public Service Commission adopted fair pricing for solar customers, ensuring they earn the retail market value for electricity supplied to the grid.
- In Illinois, we stopped attempts to eliminate net metering, preserving fair compensation for solar customers.

From advancing ambitious solar energy legislation to protecting consumer rights, Vote Solar's state-level action has driven the clean energy movement forward. These wins reflect the power of community-driven advocacy and bipartisan collaboration, offering a blueprint for the work ahead.

Vote Solar Delivers Tangible Results

For nearly 25 years, we have been a leading force at the state level, where most critical energy decisions are made. Our unique strengths and strategy include:

Deep, State-Level Expertise

Longstanding regulatory and policy knowledge allows us to effectively intervene in crucial state venues like Public Utility Commissions (PUCs) and legislatures across the United States.

Expert Intervention

We provide critical research and testimony in key regulatory processes (like Integrated Resource Plans, rate cases, and rulemakings) to advocate for local solar solutions that drive down costs, increase resilience, and reduce the need for costly transmission.

Strategic Campaigns & Coalitions

We build and lead diverse coalitions, uniting impactful partners to shape energy policies reflecting local needs and political contexts, holding utilities accountable for high rates and poor service, and building broad support.

Market Protection & Expansion

We work tirelessly to protect and expand open solar markets through policies ensuring fair compensation, like net metering.

Focus on Affordability

We strategically highlight how local solar reduces energy costs for all consumers and clearly identify utility overreach and policy failures as key drivers of rising bills, tailoring messages to resonate across diverse states.

Looking Ahead: Building Towards 2027 and Beyond

Following the 2024 presidential election, one thing is clear: Vote Solar's work driving state-level solutions to our climate crisis is more important than ever. We have already seen economic headwinds in the form of tariffs, curtailed federal support, and subsidies for the fossil fuel industries. We are also facing political headwinds from an increasingly polarized political context, and concern about Trump's anti-clean rhetoric and what it will mean for federal policy. However, most energy decisions are made at the state level, where discourse around these critical issues is often less polarized.

Vote Solar has always focused on state-level policy and regulation, where important levers for change remain and opportunities for progress are ample. As we look forward, our commitment to ensuring that our state leaders stay on course toward a clean energy transition is only reinvigorated.

Despite these challenges, we see an opportunity to position local solar as a solution with the potential to cross the partisan divide and provide kitchen-table benefits—such as lower energy bills, local jobs, and improved resilience in the face of extreme weather events—to communities around the country. Vote Solar will focus on building momentum toward the midterm elections, recognizing the potential for advancing clean energy policies even in red states.

State leaders, advocates, and communities have proven that progress is possible even in the most challenging political climates. Together, we can ensure that the momentum for solar energy doesn't stall.

Our goal is ambitious but necessary: accelerating local solar deployment towards at least 184 GW by 2035 to meet increasing demand and improve affordability for all. Meeting the load growth challenge requires strategic, expert intervention in key state venues nationwide. Vote Solar has the proven expertise, relationships, and strategic vision to lead this fight. By embracing local solar and storage, we can create an even more resilient, affordable, and equitable energy system for all. We envision communities empowered by their own clean energy resources, breathing cleaner air, and contributing directly to a stable climate.

This future is within our reach, but it requires continued advocacy, smart policies, and collective effort.

Organizational Impact and Strategy

For nearly 25 years, Vote Solar has successfully worked across 25+ states to advance the clean energy transition by building state-level markets for solar, accelerating solar growth, and reducing costs.

Vote Solar drives climate progress by accelerating the adoption of solar energy resources at scale. Our work and expertise with clean energy deployment at the state level make us uniquely positioned to achieve success—regardless of politics.

Vote Solar meets our mission through state-based strategies across the U.S. by leveraging policy expertise, spearheading innovation, building partnerships and shaping policies through coalitions, holding utilities accountable, advocating for clean energy access and fair compensation (like net metering), and promoting solar solutions that lower costs, increase resilience, and reduce transmission needs. Vote Solar is committed to building on nearly a quarter century of success by achieving measurable progress towards a clean energy future for all. However, this progress is now set against the backdrop of a new, significant challenge: unprecedented load growth.

Load growth is the increase in electricity demand over time, driven by economic and population expansion, increased industrial activity, and electrification. It necessitates expanding electricity infrastructure to maintain grid reliability. To meet this demand for accelerated load growth, we must make swift progress in increasing electricity generation.