



VOTE SOLAR

Powering an Affordable Energy Future

**Vote Solar and Local Solar's Winning
Approach Amidst Surging Demand**

The energy landscape in the United States is at a critical juncture, marked by both unprecedented opportunities and significant challenges. Electric rates are skyrocketing, having risen by 29% over the past four years as compared to 20% inflation.¹ Exacerbating other cost drivers is the fact that after nearly a decade of relatively stable demand, the nation is experiencing an extraordinary surge in electricity consumption. Recent analysis suggests as much as 9% load growth by 2028 and 18% by 2033² driven by rapid economic growth, the proliferation of data centers, an expanding manufacturing sector, and the accelerating electrification of our transportation and building sectors.

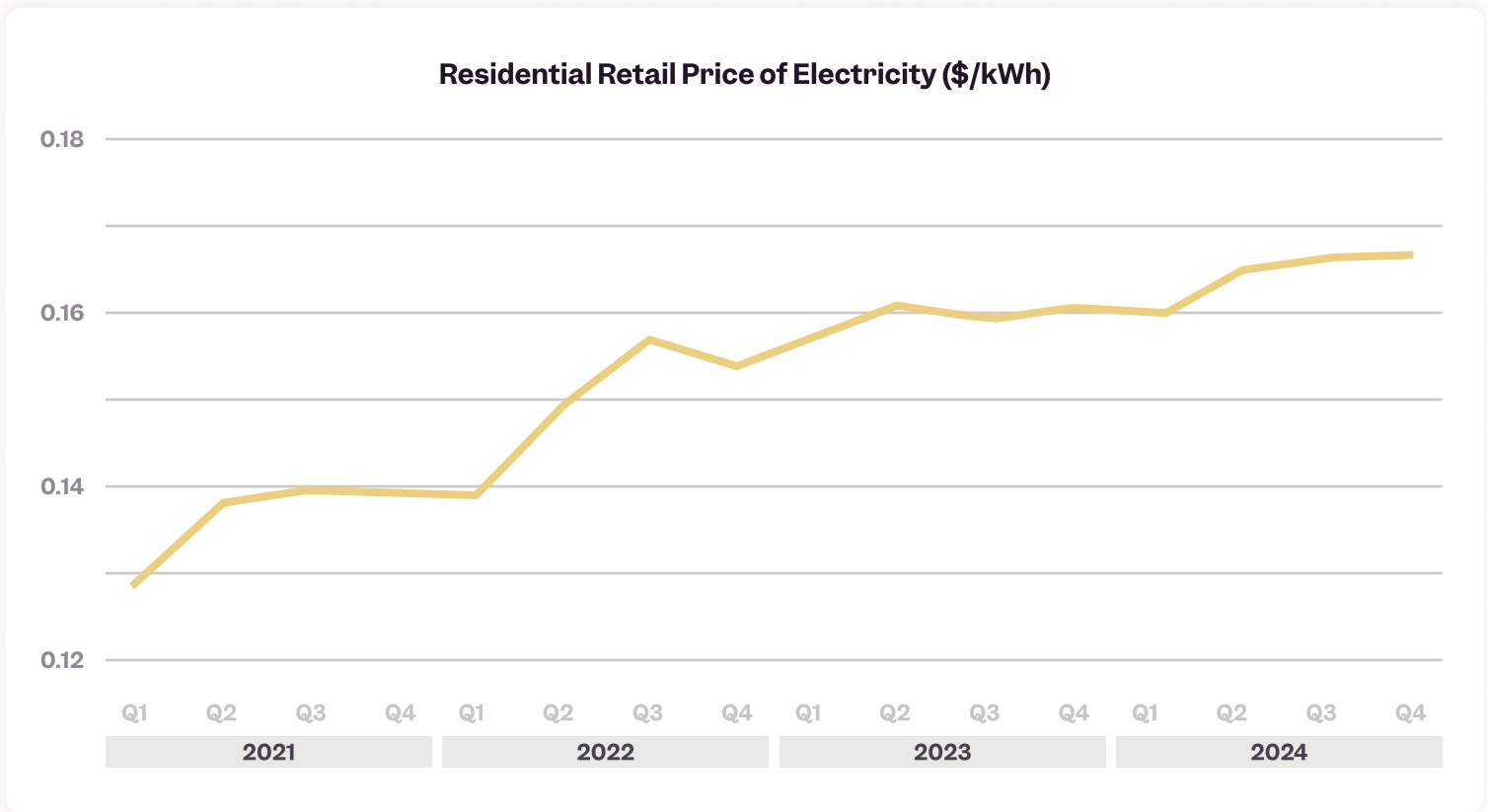


Figure 1: Trends in residential electricity costs: 2021-2024 (Source: U.S. Energy Information Administration, Electricity Data Browser)

Addressing energy affordability in the face of growing demand requires solutions that can drive more efficient use of our electricity grid and avoid costly delays in infrastructure development. However, traditional grid expansion and fossil generation solutions send us backward in meeting our climate goals, take decades to come online, exacerbate the affordability crisis, and allow utilities to continue to profit while polluting our communities. Furthermore, large-scale solar projects, while vital, face new political and logistical roadblocks that slow their deployment.

1 https://powerlines.org/wp-content/uploads/2025/04/PowerLines_UTILITY-BILLS-ARE-RISING_2025-1.pdf

2 <https://www.icf.com/insights/energy/demand-growth-challenges-opportunities-utilities>

Yet, within this challenge lies a significant opportunity. **Local solar solutions stand out as the most cost- and time-effective new source of electricity**, offering a powerful lever to stabilize and reduce energy costs. Critically, local solar solutions—such as rooftop, community, and commercial solar installations—provide an agile and rapid response to escalating demand.

Proactive state policies, particularly those championing the rapid deployment of local solar resources, are a critical solution to meet burgeoning needs, enhance grid resilience, and reduce costs for all. For nearly 25 years, Vote Solar has been at the forefront of this transition, proving that strategic state-level policy and regulatory advocacy can accelerate solar deployment, drive down costs, and deliver tangible benefits to communities nationwide. Vote Solar is – and will continue to be – uniquely positioned to lead this change towards a more affordable, sustainable, and reliable energy future.

The Looming Energy Affordability Crisis

The long-standing trend of stagnant electricity demand in the U.S. has decisively reversed. [We are now witnessing an unprecedented acceleration in projected electricity consumption](#), driven by the growing energy needs of data centers for the digital economy and artificial intelligence, a revival in domestic manufacturing, and the electrification of transportation and buildings. According to the U.S. Energy Information Administration (EIA), this surge is a sustained trend that will outpace current generation and transmission plans.

The confluence of escalating demand, an aging grid, and volatile fossil fuel prices directly translates into higher electricity bills for millions of Americans. Energy is becoming an increasing financial burden for everyone, and an insurmountable financial burden for the most vulnerable consumers. "Energy burden"—the percentage of household income spent on energy—disproportionately impacts economically disadvantaged communities.

According to the American Council for an Energy-Efficient Economy (ACEEE), one in four American households has a high energy burden.³

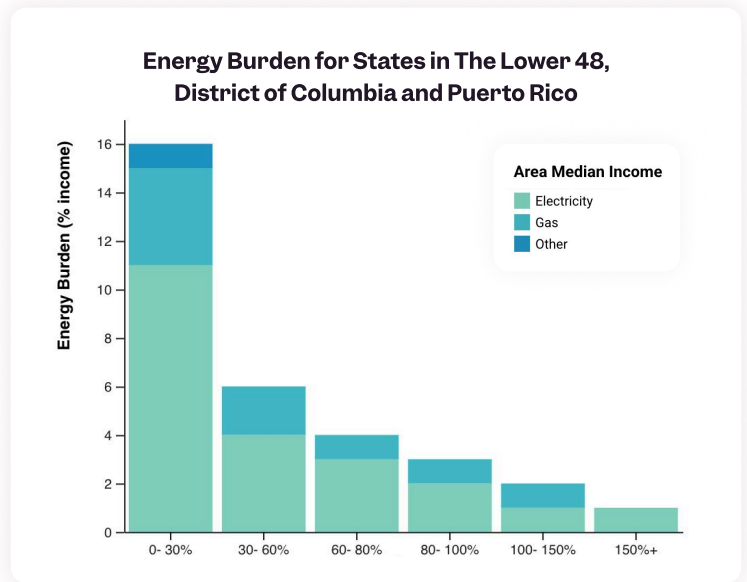
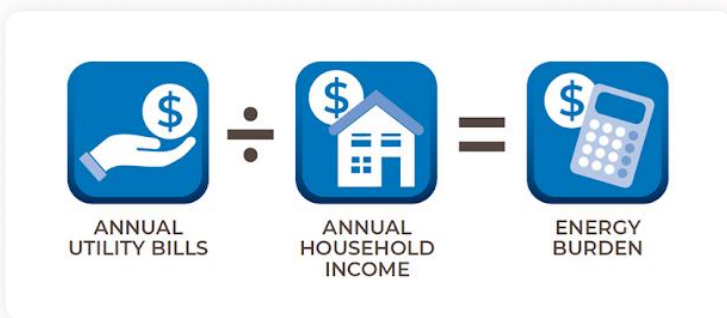


Figure 2: LEAD Tool, USDOE

Currently, investor-owned utilities (IOUs) serve more than two-thirds of consumers in the United States. Unfortunately, the current business model for investor-owned utilities is exacerbating energy burden. IOUs make a profit – a regulated rate of return – based on how much money they spend to build infrastructure (a.k.a., capital expenditures). IOUs do not, however, make a profit based on operating expenditures – such as the dispatch of local resources – which are passed onto consumers. This business model provides a very strong financial incentive to IOUs to build, and largely remain ambivalent towards operating expenditures while continuing to advance capital expenditures (a.k.a. Capital Expenditure Bias) even when operating expenditures represent a lower cost opportunity.

³ A household with an energy burden of 6% or higher is considered a high energy burden household.

In addition to the utility business model, there are other factors making electricity more expensive. Some of the elements driving up electricity prices are inflation, fossil fuel price volatility, and extreme weather events. These factors are almost exclusively passed onto consumers and have no negative impact on utility profits; they can actually increase utility profits (e.g., the replacement of equipment destroyed by extreme weather results in an increase of capital expenditures).

The utilities' financial motivation to build as much infrastructure as possible combined with other variables driving up electricity rates are increasing household energy burden for everyone. The increase in electricity prices for most states over the past year far exceeds inflation.

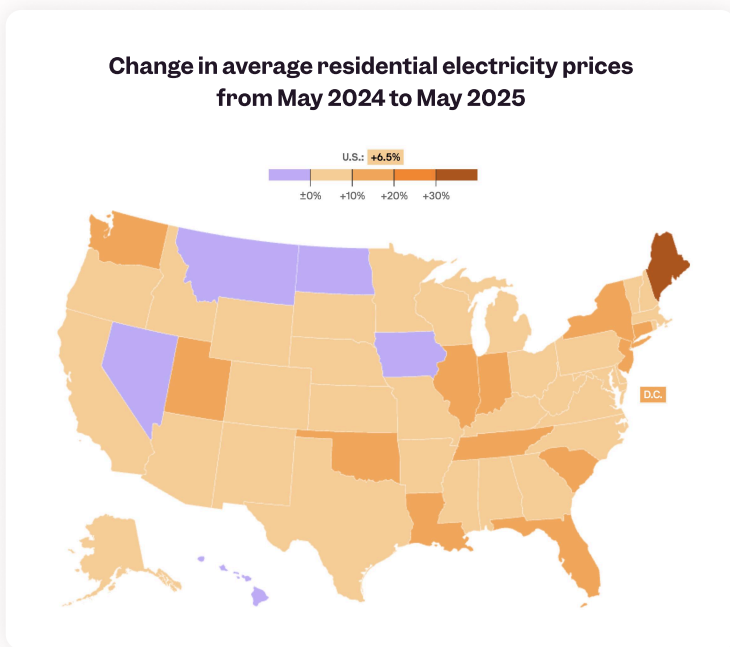


Figure 3: Data: [U.S. Energy Information Administration](#); Map: Alex Fitzpatrick/Axios

Perhaps not surprisingly, while so many households are struggling to pay their electric bill, investor-owned utilities are seeing record profits. According to Energy Innovation, 2023 was the most profitable year in the last decade for U.S. investor-owned utilities.⁴ The Energy and Policy Institute, a non-partisan think tank, found that CEO's salaries increased 9% from just 2022 to 2023, while at the same time utility disconnections for nonpayment are on the rise.⁵

When energy becomes unaffordable, consumers and politicians look for ways to cut costs, which can make energy – and more specifically energy programs – a hot potato issue. In the quest for lower electric rates, elected officials: (a) tend to look at line items that have costs without any regard for the associated benefits; and (b) look at options for change that are within their control such as stripping renewable mandates. Both of these issues can be crippling to the deployment of the resources (e.g., local resources) that will help contain costs, thereby hurting current and future affordability. Furthermore, recent decisions to extend the life of aging and uneconomic fossil fuel plants will continue to perpetuate the affordability crisis. A recent analysis by Grid Strategies found that the recent Department of Energy's emergency orders to extend the operating life of fossil fuel plants is estimated to cost ratepayers about \$3.1 billion per year in 2028.⁶ These short-term solutions are seen as the "affordable" choice for leaders, yet the climate and cost implications are significant.

Energy Affordability + Reliability

Energy burden does not impact all households in the same way. According to ACEEE, households in the Eastern United States have a higher average energy burden than households in the Western United States.

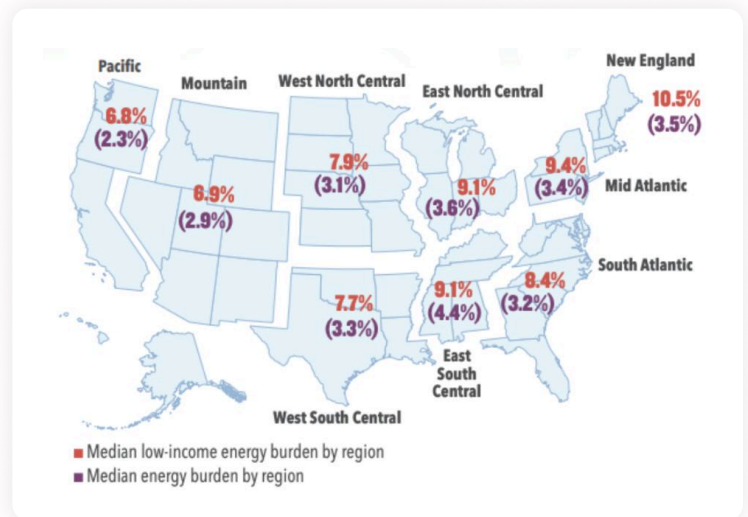


Figure 4: Median low-income (< 200% FPL) energy burdens by region (red) compared to median energy burdens by region (purple). Source: Drehoel, A., L. Ross, and R. Ayala. 2020. How High Are Household Energy Burdens? Washington, DC: American Council for an Energy-Efficient Economy.

4 <https://energyinnovation.org/report/clean-energy-isnt-driving-power-price-spikes/>

5 [https://energyandpolicy.org/as-customers-struggled-utility-ceos-pay-spiked-last-year/#:~:text=By%20tai%20vardi%20and%20Matt,her%20\\$17%20million%20in%20compensation.](https://energyandpolicy.org/as-customers-struggled-utility-ceos-pay-spiked-last-year/#:~:text=By%20tai%20vardi%20and%20Matt,her%20$17%20million%20in%20compensation.)

6 <https://www.canarymedia.com/articles/policy-regulation/forcing-dirty-power-plants-to-stay-open-would-cost-americans-billions>

In addition to regional differences, there are other factors that impact average energy burden, including (a) income, (b) race and ethnicity, (c) age, (d) renters vs. owners, and (e) housing type. Unquestionably, the households most vulnerable to high energy burden are both the households that would benefit the most from local energy resources and the households that have historically not benefited from local energy resources.

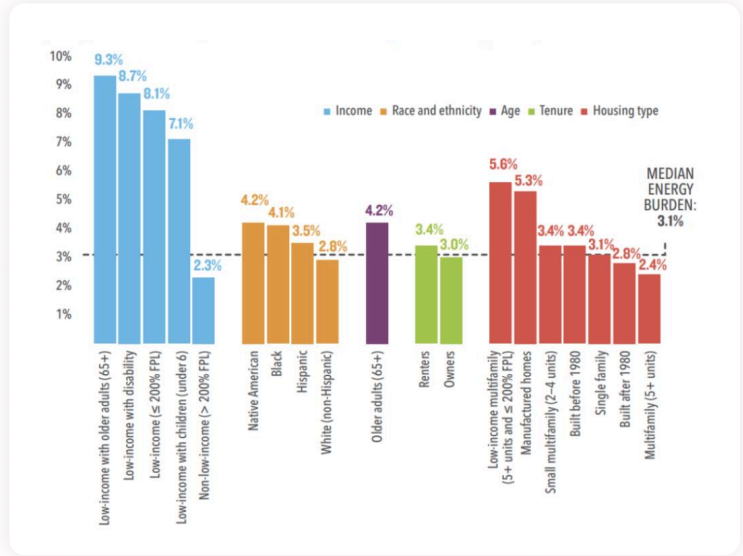


Figure 5: National energy burdens across subgroups (i.e., income, race and ethnicity, age, tenure, and housing type) compared to the national median energy burden. Source: Dreihobl, A., L. Ross, and R. Ayala. 2020. How High Are Household Energy Burdens? Washington, DC: American Council for an Energy-Efficient Economy.

Solar as a Strategic Solution

Solar energy stands out as the most cost-effective new source of electricity and can act as a powerful tool to stabilize and lower energy costs. Its advantages in cost, speed of deployment, and grid resilience make it essential for an affordable and reliable energy future - for all consumers.



Cost-Effectiveness: Solar photovoltaic (PV) technology has become one of the most cost-effective new sources of electricity. Lazard's Levelized Cost of Energy Analysis (LCOE+) shows that renewables are the most cost-competitive form of new-build generation on an unsubsidized basis.



Speed and Flexibility of Local Solar: While utility-scale solar is vital, it can take years to deploy. In contrast, local solar solutions—such as rooftop, community, and commercial installations—provide a fast and flexible response to escalating demand. These projects can be deployed in a matter of months, positioning them as an essential component for meeting immediate load growth and providing time for larger grid resources to integrate.



Affordability & Reliability: With peak demand expected to rise 14% by just 2030 and 54% by 2050,⁷ this is a critical moment to rapidly deploy proven, scalable, and reliable local solar solutions. Decisionmakers must move quickly to maintain affordable and reliable electricity supply. Relying on gas turbines to fill this peak demand is no longer viable, with higher costs and delays in availability all due to increasing demand.⁸



Enhanced Grid Resilience: A decentralized energy system with many local solar installations is more robust and less vulnerable to single points of failure, extreme weather events, or cybersecurity threats. Microgrids powered by local solar can even operate independently during outages, providing continuous power to critical facilities.



Optimal Land Use: Local solar often uses existing rooftops, parking lots, or brownfields, avoiding the need for extensive new land acquisition that can be a challenge for large utility-scale projects.

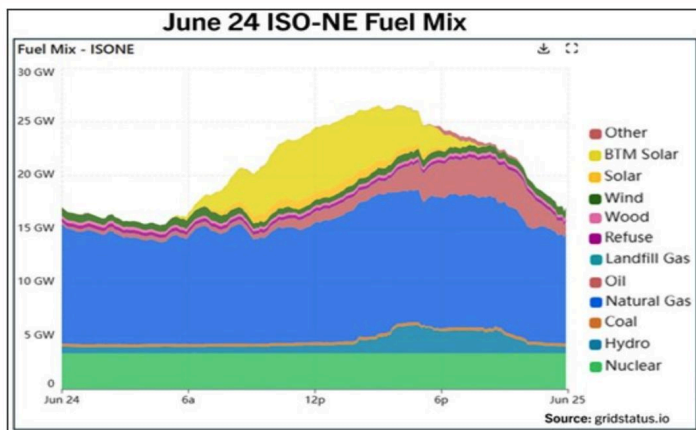
⁷ <https://www.icf.com/insights/energy/demand-growth-challenges-opportunities-utilities>

⁸ <https://rmi.org/gas-turbine-supply-constraints-threaten-grid-reliability-more-affordable-near-term-solutions-can-help/>



The cost savings of local solar solutions extends beyond individual households. Local solar can be called upon during peak demand to reduce costs for all ratepayers. An example of this is New England’s June 2025 heat wave. Thanks to solar panels and batteries, which helped keep air conditioners running while reducing fossil-fuel generation, consumers saved tens of millions of dollars.⁹

In another example, ComEd in Illinois relied on rooftop and community solar to reduce its zonal capacity obligation to PJM during five peak hours. Vote Solar estimates that the presence of local solar within ComEd’s service territory reduced ComEd’s capacity obligation by 334 MW. At \$329.17/MW-day, that means local solar saved ComEd customers about \$40 million next year. Those tremendous savings are real, tangible examples of ratepayer benefits and the downward pressure solar puts on electricity costs. According to a recent analysis of these events, “PJM’s post-event review noted that some fossil generators tripped or ran at reduced output due to the heat” and that “these [demand response] deployments... kept blackouts at bay during the worst intervals”. These examples showcase that investments in local solar, storage, and responsive load provide price stability and reliability - something increasingly critical as electricity demand and temperatures continue to rise.¹⁰



⁹ <https://www.canarymedia.com/articles/clean-energy/northeast-heat-wave-solar-battery-benefits>

¹⁰ <https://www.arcuspower.com/post/summer-2025-coincident-peaks-and-power-market-insights#:~:text=State%20of%20the%20Grid%20Snapshot,zones%20by%20midday%20July%202028>

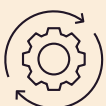
The Critical Role of State Policy

The full potential of solar energy, especially local solar, depends on strong, forward-thinking state policies. State-level frameworks are crucial for creating the market conditions that enable rapid deployment, reduce costs, and ensure fair access to solar's benefits. Successful policies include:



Community Solar Programs

These programs allow people who cannot install solar on their own properties, such as renters, to subscribe to a shared solar project and receive credits on their utility bills. Utilities can choose to provide hosting capacity maps, or similar, to drive favorable siting locations.



Streamlined or Flexible Interconnection

Clear and streamlined processes for connecting solar systems to the grid reduce bureaucratic hurdles, and installation times, which lowers costs for both developers and consumers.



Access

Policies designed to bring solar to economically disadvantaged communities through targeted incentives and support can address energy burden where it is most acutely felt.



Performance Based Regulation

With the current utility business model, utilities have a profit motive to invest in capital expenditures. Local energy solutions have the potential to reduce the need for costly capital projects, which can save consumers money but reduces the utility's future profit potential. Performance based regulation (PBR) tries to fundamentally change the way that utilities are compensated – the utility business model – in order to better align the profit motive of the utility with the policy goals of the state. Utilities are incentivized to meet goals such as affordability, DER adoption, and peak reduction rather than build costly capital projects.



Resource Modeling and Procurement

Policies that ensure utilities are fully accounting for local solar solutions - both existing and those that could be brought online - can reduce over-procurement of fossil capacity. Proper modeling, and inclusion, of distributed energy resources in utility planning processes ensures utilities consider these affordable and flexible solutions instead of costly polluting generation.



Allowing Competition

Specifically for non-wires alternatives that can break utility incentive to costly capital investments while maximizing use of local solar solutions.



Data Center Interconnection Reform

Policies that address rising ratepayer costs and demand growth, such as Bring Your Own New Clean Energy (BYONCE), can reduce the burden ratepayers are footing for data centers.



Permitting Reform

Policies to support solar installation through permitting reform to lower the cost of local solar solutions and allow plug-and-play solutions like balcony solar.



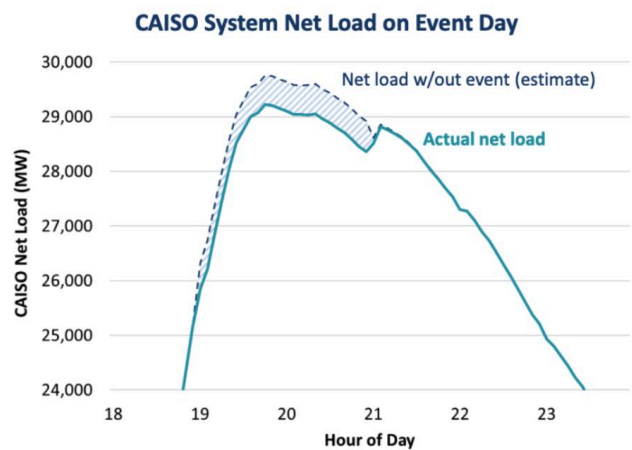
POLICY SPOTLIGHT

Virtual Power Plants (VPPs): Programs that can unlock local energy solutions' full value for ratepayers as a whole.

- ✦ **Avoiding costly infrastructure upgrades:** VPPs can reduce the need to build new power plants, expensive transmission lines, and substation upgrades, which are costs that would typically be passed on to ratepayers.
- ✦ **Lowering wholesale energy costs:** Utilities can unlock major energy and fuel cost savings by relying on VPP capacity at times of peak demand. This reduces the need for high-cost "peaker" plants that are fired up during times of high demand, and even reduces the need for fossil fuel generating capacity.
- ✦ **Providing direct compensation to participants:** Households and businesses that enroll in a VPP can receive direct compensation or bill credits for allowing the VPP operator to access their devices. This creates an additional revenue stream for consumers and incentivizes the adoption of electric technologies.
- ✦ **Optimizing energy use:** VPPs can help optimize how energy is used and distributed. They can manage devices to reduce energy use or send stored energy to the grid during times of high demand, reducing stress on the grid.

A recent test event in California discharged 535 MW of battery storage through several DER aggregators. The result was **535 MW** of avoided capacity needed from dirty and costly peaker plants.

This recent example shows the tremendous unused potential of local solar. By enabling virtual power plant programs, and also the tremendous potential of rapid local solar + storage deployment, we can provide reliable capacity and meaningful cost savings for all ratepayers. In fact, an analysis from Brattle Group predicts that cost savings from California's statewide distributed power plant program could provide net system cost savings between \$28 million and \$206 million by 2028.¹¹



Notes: Net load sourced from CAISO and reflects actual demand less solar and wind output. Baseline net load in the absence of the event was constructed using 5-minute telemetry data provided by Sunrun and Tesla. All battery output is shown as a reduction in net load.

Source: The Brattle Group. "Assessing VPP Performance: Impacts of a Test Event in California. August 1, 2025, <https://www.brattle.com/wp-content/uploads/2025/08/Assessing-VPP-Performance-Impacts-of-a-Test-Event-in-California-1.pdf>.

¹¹ <https://www.brattle.com/insights-events/news/brattle-report-finds-californias-distributed-power-plant-program-could-deliver-hundreds-of-millions-in-cost-savings-while-supporting-grid-reliability/>



Vote Solar's Proven Impact

For nearly 25 years, Vote Solar has been at the forefront of the clean energy transition, demonstrating that strategic state-level policy and advocacy can accelerate solar deployment and reduce costs. The organization's strategic focus on local solar solutions is based on an understanding of their unique advantages in addressing the current energy crisis.

An example of our proven impact is demonstrated by our work in Illinois, where Vote Solar has consistently taken a dual-track approach, leveraging both legislative and regulatory avenues to drive local solar deployment, ensure its benefits reach frontline communities, and prepare the energy grid for a more resilient, solar-powered future. For seven years, we've worked with allies to provide expertise that informs bold new policies for the State, and then intervened in dockets to argue for the most effective implementation of those policies. Through this work we've built a reputation for sound analysis and innovative ideas that can help Illinois advance its ambitious clean energy goals.

Our success in Illinois is magnified by the strong partnerships we've built. On the regulatory side, we work hand-in-glove with the Environmental Law & Policy Center (ELPC) and often the Union of Concerned Scientists, supported by GridLab, and are at times joined by the Natural Resources Defense Council and/or the Environmental Defense Fund. Our coalition in this work, known as the Joint Non-Governmental Organizations

(or the JNGO) has established itself as a major player in Illinois regulatory work. In legislative work, we are a core participant in the Illinois Clean Jobs Coalition (ICJC) - a space where environmental non-profits, environmental justice groups, consumer advocates, and many others come together to drive an equitable clean energy future and the economic growth it will bring.

Vote Solar's work in Illinois began in the wake of the Future Energy Jobs Act (FEJA)'s passage - this major energy legislation funded the state's Renewable Portfolio Standard, creating reliable funding for both utility and distributed solar (and wind) deployment as well as creating Illinois' first community solar program. We immediately began establishing our expertise and winning in a series of dockets grappling with the implementation of this law and the influx of solar to the state in its wake. This included cases on net metering, the full energy system benefits of solar, and interconnection. We also took a very active role in the on-the-ground rollout of the state's new low-income solar program, advocating for a program that maximizes solar benefits to residents with lower incomes and in environmental justice communities.

Our experience implementing FEJA gave us valuable insight into policy gaps that needed to be remedied for the continued advancement of local solar deployment. We brought this experience to bear in the Climate and Equitable Jobs Act (CEJA). While the legislation was far-reaching, several key provisions included:

01

A clear path to 100% carbon-free power by 2045, with interim emissions reductions of 45% by 2035.

02

6.5 GW of rooftop and community solar, with 715 MW of that solar reserved for development by disadvantaged businesses.

03

An expanded Illinois Solar for All program to provide free solar and guaranteed savings for low-income families, plus new inclusive finance mechanisms for families to invest in energy updates.

04

An opportunity to end automatic, rubber-stamped utility rate hikes for consumers.

Overall, the legislation was set to increase Illinois from 9% to 40% renewable by 2030 by building 3.5x more renewable energy each year than prior state commitments. And we're already seeing this play out: CEJA's robust framework and significant financial backing have already led to the procurement of over 3,500 MW of wind and solar energy, including more than 1,500 MW for rooftop and community solar projects.

Since CEJA's passage, Vote Solar has been busy implementing the bill and, particularly, using new energy system planning to pave the way for expanded adoption and integration of distributed energy resources. In these dockets, we've had critical wins relating to cost, ensuring grid modernization updates benefit vulnerable communities, and, of course, expanding access to local solar solutions.

Through our leadership in the JNGO coalition, Vote Solar secured multiple victories that directly protected customers from unnecessary costs. Most notably, we achieved a \$550 million reduction in ComEd's proposed REACTS and PERFORM programs for energy system modernization spending—cutting the budget from \$909 million to \$406 million—ensuring that only cost-effective investments were approved. This right-sizing effort protects ratepayers from undue costs while still preserving the grid modernization tools needed to integrate clean energy.

In addition, the Illinois Commerce Commission adopted our recommendations to strengthen ComEd's cost-effectiveness framework, requiring clearer evaluation of environmental, customer, and equity benefits. The Commission also explicitly recognized affordability as a core principle of the grid plan, directing ComEd to measure total bill impacts and adopt metrics that track how investments affect affordability across communities.

Vote Solar's advocacy goes beyond short-term bill impacts. In our testimony across both ComEd and Ameren cases, we have emphasized that true affordability must be understood in the context of Illinois' decarbonization and electrification goals. The lowest-cost energy future is one where households and businesses increasingly rely on a decarbonized, highly electrified grid—reducing reliance on volatile fossil fuels in buildings and transportation.

We also secured wins on critical energy system modernization efforts around dynamic hosting capacity analysis, flexible interconnection plans, and the initiation of virtual power plant and community solar + storage workshops. For instance, intervening in the utility's Performance Metrics docket, advocating for virtual power plants in ComEd's "Peak Load Reduction" programs for residential customers. This program could save all ratepayers millions, while deploying more local solar solutions.

Vote Solar also advances CEJA implementation outside of the regulatory arena helping to lead a working group dedicated to the success of Illinois' low-income solar program, and supporting a non-profit green bank created through CEJA - the Clean Energy Jobs and Justice Fund - in standing itself up.

Most recently, Vote Solar has been engaging with partners around policy development for Illinois' next energy omnibus bill. This bill will focus on ensuring Illinois has the capacity to meet rising electricity demand while continuing to make progress toward its clean energy goals. Vote Solar's priorities include distributed storage integration and compensation, including ensuring that storage benefits reach low-income households and that the state has the full suite of tools needed to affordably reach its clean energy goals.

Through our sustained engagement, Vote Solar has become a trusted partner for Illinois decision-makers, offering technically sound arguments and community-rooted advocacy that consistently pushes Illinois towards a more equitable and solar-powered future. Our ability to seamlessly navigate both legislative and regulatory arenas has been instrumental in securing concrete outcomes, driving significant solar deployment, and returning benefits to communities across the state.



Our Commitment

The challenges of escalating energy demand and the worsening affordability crisis are undeniable, but so is the immense opportunity presented by solar energy, especially when paired with strategic state-level policy. Investing in Vote Solar means investing in a proven, impactful strategy to accelerate the clean energy transition and ensure a more affordable and resilient energy future for everyone.

Local solar solutions, like rooftop and community solar, give families more freedom, choice, and control over their energy - while helping neighborhoods stay strong and connected. By easing pressure on our aging grid, solar helps avoid expensive upgrades and saves everyone money on their bills. Meanwhile, utility companies raked in billions in profits while household energy bills continue to increase. Utilities' main argument against solar energy mainly revolves around the concept of cost shifting. But what they really mean is that solar is a threat to their bottom line. We need energy policies that promote fairness, lower costs, and build more resilient communities. That's how we create a better energy future for all.

Vote Solar's work driving state-level clean energy solutions is more important than ever. Mitigating the climate crisis is intrinsically connected to almost every economic, social, and environmental issue that we face. We have already seen economic headwinds in the form of tariffs, curtailed federal support, and support for the fossil fuel industry. We are also facing the fallout from an increasingly polarized political context. However, most energy decisions are made at the state level, where discourse around these critical issues is often less polarized.

In the face of these challenges, we see an opportunity to continue 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 has always focused on state-level policy and regulation, where important levers for change and ample opportunities for progress still exist. As we look forward, our commitment to ensuring that state leaders stay on course toward a clean energy transition is only reinvigorated.



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. Your support is crucial to expanding our capacity, allowing us to intervene effectively in more states, counter utility opposition, and ultimately secure an affordable, reliable, clean energy future powered by the sun, one state at a time. 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. We welcome the opportunity to discuss how your partnership can accelerate this vital work.