VOTE SOLAR

Why Illinois Should Double Down on Distributed Energy Resources

New analysis shows local solar is saving Illinois consumers millions

By: Will Kenworthy, Vote Solar Regulatory Director, Midwest

As energy prices rise across the Midwest, Illinois has a chance — and an obligation — to chart a different path. Distributed energy resources (DERs) like rooftop and community solar, paired with flexible technologies such as battery storage, managed EV charging, and virtual power plants (VPPs), are already delivering measurable benefits – and millions in savings - to Illinois customers and the grid. The next step is scaling them up by passing the Clean and Reliable Grid Affordability Act.

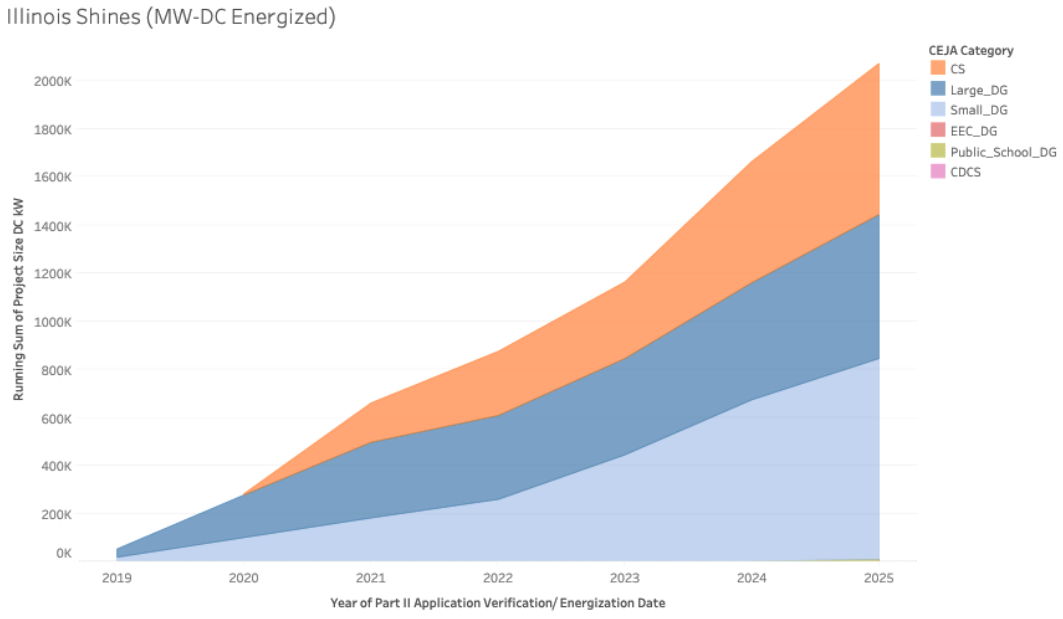
Illinois' clean energy leadership is paying off

Through programs like Illinois Shines and Illinois Solar for All, Illinois has built one of the most successful distributed solar markets in the country. Together, these programs have helped energize thousands of rooftop and community solar projects that are saving customers money, building wealth in communities, and helping us meet our climate goals.

As of early 2025, Illinois has installed roughly 6.2 gigawatts of solar capacity statewide, including both distributed and utility-scale projects. That's a remarkable achievement for a state that, less than a decade ago, had barely a fraction of that amount.

But perhaps more importantly, distributed solar is already playing a concrete role in keeping the lights on.

As of October 10, 2025, nearly 2.1 Gigawatts of distributed solar has been energized in Illinois for over 90,000 customers who live in every county in the state. The current fleet will generate nearly 2.6 million megawatt-hours per year, and this will grow as we add more and more solar every year. This is a remarkable achievement and one for which every Illinoisan can be proud.



Source: Illinois Shines, Project Application Report III. Available at www.illinoisshines.org. Data as of October 10, 2025.

Distributed solar is reducing Illinois' capacity costs

ComEd recently told PJM — the regional grid operator that runs our wholesale electricity markets — that distributed generation in its territory reduced Illinois' capacity obligation by 479 megawatts for the 2025 delivery year.

That's not an abstract policy benefit; it's a direct, quantifiable reduction in what customers pay for reliability. At PJM's 2025/26 capacity price of $269.92 per MW-day - the price ComEd customers are paying this year - those 479 MW represent roughly $47 million per year in avoided capacity costs. If the same amount of capacity relief applied at the 2026/27 PJM clearing price — $329.17 per MW-day — the annual value would climb to more than $57 million. And while Ameren has not publicly disclosed the capacity obligation solar has reduced in their territory, we know concerns about capacity and resource adequacy costs are even greater downstate.

That's money Illinois consumers don't have to pay to the capacity market — value that was created entirely by distributed resources already operating in our communities.

Markets are tightening — and DERs are the best hedge

We are entering a period of significant market stress. Capacity prices in PJM have spiked to their highest level in a decade. Data centers and electrification are driving unprecedented load growth. Inflationary pressures and changing federal market rules are pushing up the cost of both energy and capacity.

Illinois depends on these regional markets, and as they get more expensive, we need strategies to protect ratepayers and maintain reliability. Distributed resources do exactly that. They lower system peaks, defer expensive grid upgrades, and improve resilience — especially in overburdened communities that have historically suffered from poorer reliability.

The next frontier: flexibility and virtual power plants

Illinois' next opportunity is to integrate flexibility into the system. A Virtual Power Plant (VPP) isn't a new technology — it's a smarter way of using what we already have. VPPs aggregate rooftop solar, battery storage, EVs, and smart thermostats so they can act together as a grid resource.

At today's capacity prices, every verified kilowatt a VPP can reduce at peak times has tangible economic value. And because these resources are located where people live and work, they provide additional benefits — lower bills, resilience during outages, and local economic activity.

Policy actions Illinois should take now

We already have the right foundation in Illinois Shines and Illinois Solar for All. To meet rising demand and capture the full value of DERs, Illinois should now:

1. **Keep growing our distributed solar programs.** Continue full funding and predictable annual blocks for Illinois Shines, and expand Illinois Solar for All with streamlined processes and

interconnection support for low-income and environmental justice communities.

2. **Roll out flexible interconnection.** Illinois should accelerate the deployment of flexible interconnection — allowing new solar, storage, and electrification load to connect to the existing grid faster and more affordably. Dynamic operating envelopes, temporary export limits, and real-time hosting capacity data can unlock substantial new capacity on circuits that would otherwise be constrained. Flexible interconnection is the key to scaling both new generation and new load without costly grid rebuilds.

3. **Stand up Virtual Power Plant (VPP) programs.** The Commission should work with utilities to develop transparent VPP tariffs and pilots that credit verified performance, allow third-party aggregators to participate, and align customer incentives with grid needs.

4. **Enable load flexibility across programs.** Managed EV charging, smart thermostats, and customer storage should be eligible for performance-based incentives when they help reduce system peaks or improve local reliability.

5. **Credit distribution system value.** Utilities should evaluate Non-Wires Solutions (NWS) in their distribution planning to recognize avoided or deferred feeder and substation upgrades. That's a direct, local value stream that DERs can deliver.

6. **Measure and report outcomes.** Illinois should publish an annual DER Capacity Ledger — tracking energized MWs, enrolled flexible devices, verified peak-kW reductions, and avoided capacity costs — to keep the focus on measurable progress.

A moment for action

Illinois' clean energy transition is working. Our distributed solar programs are delivering tangible value to customers and the grid. But we're only scratching the surface of what these resources can do. Paired with storage and fully funded to keep deploying, these programs can make a much bigger dent in Illinois' capacity costs. But they won't be able to do that without legislative action – Illinois' General Assembly must pass the Clean and Reliable Grid Affordability Act to fully unlock the cost-savings and other benefits distributed solar+storage can provide.

As market pressures grow, DERs — backed by smart interconnection and flexible programs — can help Illinois meet new load, reduce costs, and build a more reliable, equitable grid.

The infrastructure is in place. The value is clear. What's needed now is the will to double down.