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STATES OF SOLAR

Q3 2023 Quarterly Report
Executive Summary



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The NC Clean Energy Technology Center is a UNC System-chartered Public Service Center administered by the College of Engineering at North Carolina State University. Its mission is to advance a sustainable energy economy by educating, demonstrating and providing support for clean energy technologies, practices, and policies. The Center provides service to the businesses and citizens of North Carolina and beyond relating to the development and adoption of clean energy technologies. Through its programs and activities, the Center envisions and seeks to promote the development and use of clean energy in ways that stimulate a sustainable economy while reducing dependence on foreign sources of energy and mitigating the environmental impacts of fossil fuel use.

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PREVIOUS EDITIONS AND OTHER 50 STATES REPORTS

Full editions of and annual subscriptions to the 50 States of Solar may be purchased [here](#).

The 50 States of Solar is a quarterly publication. Previous executive summaries and older full editions of *The 50 States of Solar* are available [here](#).

The NC Clean Energy Technology Center also publishes the *50 States of Grid Modernization*, the *50 States of Electric Vehicles*, and the *50 States of Power Decarbonization* on a quarterly basis. Executive summaries of these reports may be found [here](#). Please contact us for older issues of the 50 States of Solar.

ABOUT THE REPORT

PURPOSE

The purpose of this report is to provide state lawmakers and regulators, electric utilities, the solar industry, and other stakeholders with timely, accurate, and unbiased updates on state actions to study, adopt, implement, amend, or discontinue policies associated with distributed solar photovoltaics (PV). This report catalogues proposed and enacted legislative, regulatory policy, and rate design changes affecting the value proposition of distributed solar PV during the most recent quarter, with an emphasis on the residential sector.

The 50 States of Solar series provides regular quarterly updates of solar policy developments, keeping stakeholders informed and up to date.

APPROACH

The authors identified relevant policy changes through state utility commission docket searches, legislative bill searches, popular press, and direct communication with stakeholders and regulators in the industry.

Questions Addressed

This report addresses several questions about the changing U.S. solar policy landscape:

- How are state legislatures, regulatory authorities, and electric utilities addressing fast-growing markets for distributed solar PV?
- What changes to traditional rate design features and net metering policies are being proposed, approved, and implemented?
- Where are distributed solar markets potentially affected by policy or regulatory decisions on community solar, third-party solar ownership, and utility-led residential rooftop solar programs?

Actions Included

This report series focuses on cataloging and describing important proposed and adopted policy changes affecting solar customer-generators of investor-owned utilities (IOUs) and large publicly-owned or nonprofit utilities (i.e., those serving at least 100,000 customers). Specifically, actions tracked in these reports include:

- Significant changes to state or utility **net metering** laws and rules, including program caps, system size limits, meter aggregation rules, and compensation rates for net excess generation
- Changes to statewide **community solar** or **virtual net metering** laws and rules, and individual utility-sponsored community solar programs arising from statewide legislation
- Legislative or regulatory-led efforts to study the **value of solar, net metering**, or **distributed solar generation policy**, e.g., through a regulatory docket or a cost-benefit analysis
- Utility-initiated rate requests for **charges applicable only to customers with solar PV** or other types of distributed generation, such as added monthly fixed charges, demand charges, stand-by charges, or interconnection fees
- Utility-initiated rate requests that propose a 10% or larger increase in either **fixed charges** or **minimum bills** for all residential customers
- Changes to the legality of **third-party solar ownership**, including solar leasing and solar third-party solar power purchase agreements (PPAs), and proposed **utility-led rooftop solar** programs

In general, this report considers an “action” to be a relevant (1) legislative bill that has been passed by at least one chamber or (2) a regulatory docket, utility rate case, or rulemaking proceeding. Introduced legislation related to third-party sales is included irrespective of whether it has passed at least one chamber, as only a small number of bills related to this policy have been introduced. Introduced legislation pertaining to a regulatory proceeding covered in this report is also included irrespective of whether it has passed at least one chamber.

Actions Excluded

In addition to excluding most legislation that has been introduced but not advanced, this report excludes a review of state actions pertaining to solar incentives, as well as more general utility cost recovery and rate design changes, such as decoupling or time-of-use tariffs. General changes in state implementation of the Public Utility Regulatory Policies Act of 1978 and subsequent amendments, including changes to the terms of standard contracts for Qualifying Facilities or avoided cost rate calculations, are also excluded unless they are related specifically to the policies described above. The report also does not cover changes to a number of other policies that affect distributed solar, including solar access laws, interconnection rules, and renewable portfolio standards. Details and updates on these and other federal, state, and local government policies and incentives are available in the NC Clean Energy Technology Center’s Database of State Incentives for Renewables and Efficiency, at www.dsireusa.org.

EXECUTIVE SUMMARY

OVERVIEW OF Q3 2023 POLICY ACTION

In the third quarter of 2023, 39 states plus DC and Puerto Rico took a total of 157 actions related to distributed solar policy and rate design (Figure 1). Table 1 provides a summary of state actions related to DG compensation, rate design, and solar ownership during Q3 2023. Of the 157 actions cataloged, the most common were related to DG compensation rules (47), followed by residential fixed charge and minimum bill increases (44), and community solar (38).

Table 1. Q3 2023 Summary of Policy Actions

Policy Type	# of Actions	% by Type	# of States
DG compensation rules	47	30%	22 + DC, PR
Residential fixed charge or minimum bill increase	44	28%	28 + DC
Community solar	38	24%	18 + DC
DG valuation or net metering study	13	8%	10 + PR
Third-party ownership of solar	7	4%	4
Residential demand or solar charge	6	4%	4
Utility-led rooftop PV programs	2	1%	2
Total	157	100%	39 States + DC, PR

Note: The "# of States/ Districts" total is not the sum of the rows, as some states have multiple actions. Percentages are rounded and may not add up to 100%.

TOP FIVE SOLAR POLICY DEVELOPMENTS OF Q3 2023

Five of the quarter's top policy developments are highlighted below.

New Jersey Board of Public Utilities Approves Community Solar Program

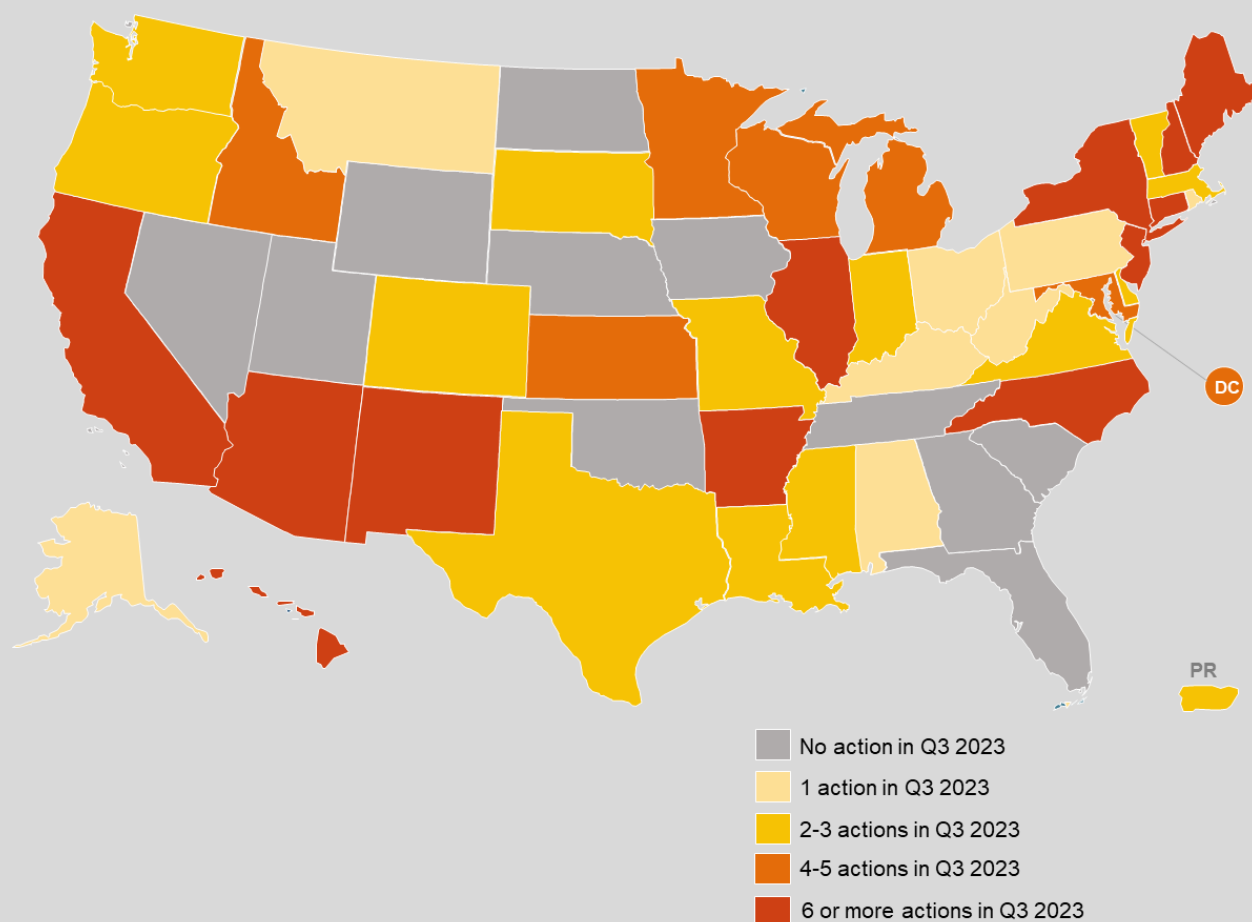
In August 2023, the New Jersey Board of Public Utilities issued an order creating a permanent community solar program, following its popular pilot program. The order sets annual capacity allocations by utility, totaling 225 MW in 2024. Each community solar project must have 51% of its capacity allocated to low- to moderate-income subscribers, and utilities are to implement consolidated billing by 2025.

California Regulators File Proposed Decision on Virtual Net Metering

A proposed decision filed in California's ongoing net metering 3.0 proceeding addresses virtual net metering, adopting a modified version on the net metering 3.0 tariff for this program. The

new virtual net metering tariff would use the avoided cost calculator as the basis for credit rates under the program, but there would be no netting of consumption. The virtual net metering tariff would also include higher adders for residential customers than those in the standard net metering 3.0 tariff.

Figure 1. Q3 2023 Action on DG Compensation, Rate Design, & Solar Ownership Policies, by Number of Actions



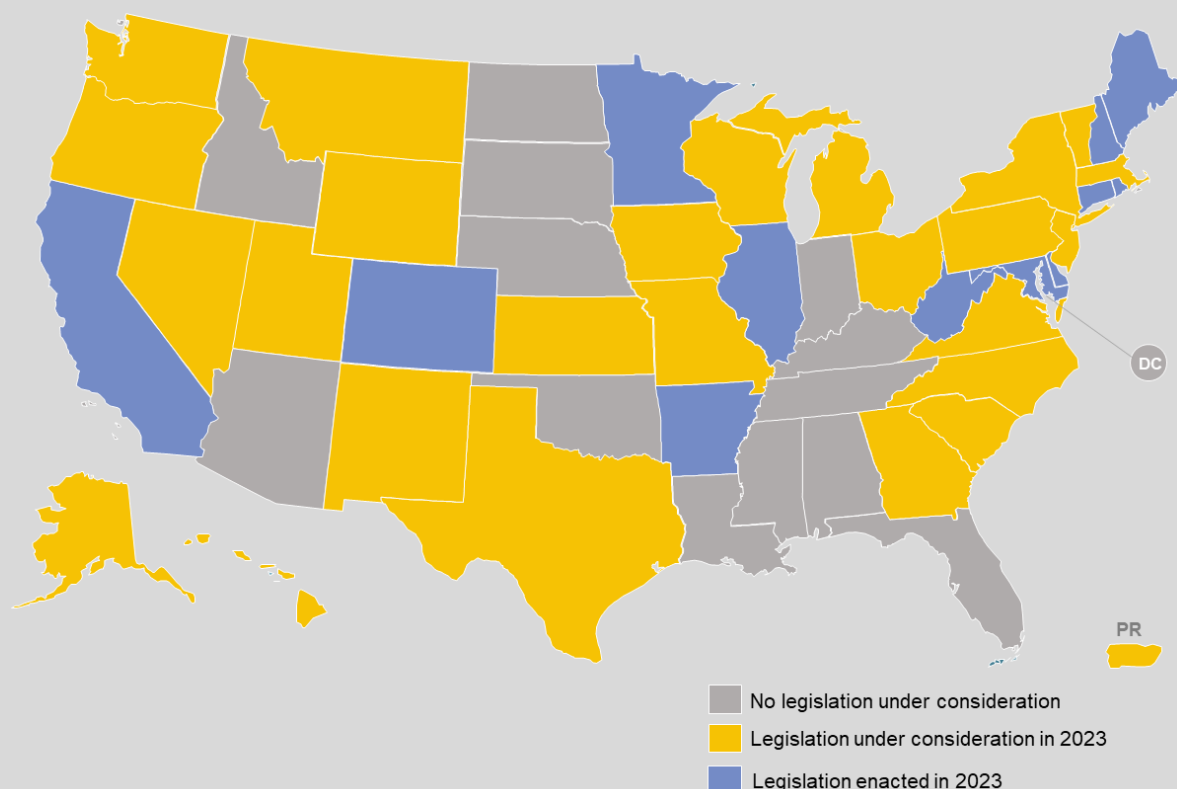
Maine Lawmakers Enact Solar Successor Programs Bill

In July 2023, Maine lawmakers enacted legislation amending the current net energy billing program and calling for the establishment of a Distributed Solar and Energy Storage Program based on a proposal developed last year by a stakeholder group led by the Governor’s Energy Office. The program is to be developed by July 1, 2024 and is encouraged to use federal funds to help support it.

North Carolina Utilities Commission Approves Changes to Commercial Net Metering

The North Carolina Utilities Commission approved Duke Energy Progress' request to establish a net metering successor tariff for non-residential customers (Non-Residential Solar Choice tariff). The tariff includes time-varying credit rates for participants and increases the system size limit to 5 MW (except for leased systems). The tariff took effect in October 2023, although existing customers may remain on the previous net metering tariff until September 30, 2023.

Figure 2. DG Compensation, Rate Design, and Solar Ownership Legislation Under Consideration in 2023 (as of mid-October 2023)



Michigan Utilities Plan Distributed Generation Program Expansions

In Michigan, two utilities are currently planning to expand their distributed generation (DG) programs. DTE Electric filed a settlement agreement as part of its integrated resource plan proceeding that includes the utility increasing the DG program cap from 1% to 6% of the utility's average in-state peak load for the preceding five years. Indiana Michigan Power has also proposed expanding its DG program cap from 1% to 4% of the five-year average in-state peak load.

THE BIG PICTURE: INSIGHTS FROM Q3 2023

States Utilizing Carve-Outs and Incentives to Promote Low-Income Community Solar Participation

As states continue to revise and iterate on their community solar programs, policymakers are increasing requirements for low-income customer participation in projects and specifying that low-income subscribers receive higher compensation. Xcel Energy filed a proposal for a successor community solar tariff in Minnesota in August 2023, following legislation enacted earlier in the year. The utility's proposal requires that at least 30% of a community solar project's capacity be subscribed by low- and moderate-income (LMI) customers, and a total of 55% of the project's capacity be subscribed by a combination of LMI customers, public interest subscribers, and affordable housing providers. New Jersey's new permanent community solar program will require at least 51% of each project's capacity to be allocated to LMI customers.

Utilities Working to Align Distributed Generation Compensation Tariffs Across Jurisdictions

With utilities continuing to revise net metering programs and adopt successor tariffs, several utilities with service territories in multiple states are taking steps to align their distributed generation (DG) compensation programs across these jurisdictions. In the Carolinas, Duke Energy proposed a net metering successor tariff in North Carolina with the same structure as that approved in South Carolina. Ultimately, a transitional tariff was approved in North Carolina, but a South Carolina-style tariff will fully take effect within a few years. Idaho Power filed a proposal in Oregon in September 2023 to implement the same changes to its DG compensation tariffs that the utility has proposed in Idaho. In Kansas, Evergy is also planning to align its net metering rules excluding time-of-use customers from participation across its Kansas Central and Kansas Metro jurisdictions.

States Pursuing Rooftop and Community Solar Incentive Funding Through the U.S. Environmental Protection Agency's Solar for All Program

The U.S. Environmental Protection Agency's Solar for All program opened in July 2023, with applications due on October 12, 2023. The \$7 billion program provides funding to promote residential-serving solar, including both behind-the-meter solar and community solar, in low-income and disadvantaged communities. Each awarded entity must use at least 75% of funding for customer incentives, with incentives designed to provide a net 20% bill savings. Funding may also be used to support market transformation, technical assistance, workforce development, and outreach activities. Market transformation activities may include such things as modifying net metering, community solar, and interconnection policies to create a more favorable policy environment for residential solar deployment. State entities in 44 states submitted notices of intent to apply for funding through the program, as well as numerous territories, non-profits, local governments, and tribal governments.

FULL REPORT DETAILS & PRICING

FULL REPORT DETAILS

Content Included in the Full Quarterly Report:

- Detailed policy tables describing each pending and recently decided state and utility action regarding:
 - Net Metering
 - Distributed Solar or DG Valuation
 - Community Solar
 - Residential Fixed Charge and Minimum Bill Increases
 - Residential Solar Charges (Demand Charges, Standby Charges, & Grid Access Charges)
 - Third-Party Ownership
 - Utility-Led Rooftop Solar
- Links to original legislation, dockets, and commission orders for each policy action
- Summary maps of action for each policy category above
- Excel spreadsheet file of all actions taken during the quarter and separate Powerpoint file of all summary maps available upon request
- Qualitative analysis and descriptive summaries of solar policy action and trends
- Outlook of action for the next quarter

WHO SHOULD PURCHASE THIS REPORT

The 50 States of Solar allows those involved in the solar and electric utility industry to easily stay on top of legislative and regulatory changes. The report provides a comprehensive quarterly review of actions, an undertaking that would take any one business or organization weeks of time and thousands of dollars in staff time. At a cost of \$500 per issue (or \$1,500 annually), the 50 States of Solar offers an invaluable time and financial savings. With direct links to original sources for all actions, customers may stay on top of legislative and regulatory developments between quarterly reports.

Solar Installation and Manufacturing Companies

- Identify new market opportunities, as well as changing and risky markets
- Stay on top of state policy developments relevant to your business

- Give your own team a head start in tracking legislative and regulatory proceedings

Investor-Owned and Public Power Utilities

- Learn about the approaches being taken by other utilities facing similar challenges
- Stay on top of relevant state policy developments
- Utilize an objective source of information in legislative and regulatory proceedings

Investors and Financial Analysts

- Identify new investment opportunities and emerging areas of growth, as well as risky investments
- Access rate data that is often buried in regulatory filings

Advocacy Organizations

- Learn about the diverse solar policy and rate proposals in other states
- Learn about the outcomes of other state’s policy and rate decisions
- Utilize an objective source of information in legislative and regulatory proceedings

Researchers and Consultants

- Access valuable data requiring an immense amount of time to collect first-hand
- Identify research needs to inform solar policy and rate design proceedings
- Cite an objective source in your own research and analysis

PRICING

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Subscription Type	Annual Subscription	Single Report
50 States of Solar Report	\$1,500	\$500
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