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STATES OF SOLAR

Q1 2024 Quarterly Report
Executive Summary



NC CLEAN ENERGY
TECHNOLOGY CENTER

DSIRE insight

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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 Q1 2024 POLICY ACTION

In the first quarter of 2024, 43 states plus DC and Puerto Rico took a total of 163 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 Q1 2024. Of the 163 actions cataloged, the most common were related to DG compensation rules (56), followed by residential fixed charge and minimum bill increases (42), and community solar (37).

Table 1. Q1 2024 Summary of Policy Actions

Policy Type	# of Actions	% by Type	# of States
DG compensation rules	56	34%	24 + DC, PR
Residential fixed charge or minimum bill increase	42	26%	28 + DC
Community solar	37	23%	20 + DC
DG valuation or net metering study	15	9%	12 + DC, PR
Third-party ownership of solar	8	5%	6
Residential demand or solar charge	3	2%	2
Utility-led rooftop PV programs	2	1%	2
Total	163	100%	43 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 Q1 2024

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

Massachusetts Regulators Allow Net Metering Credit Transfer Across Utilities

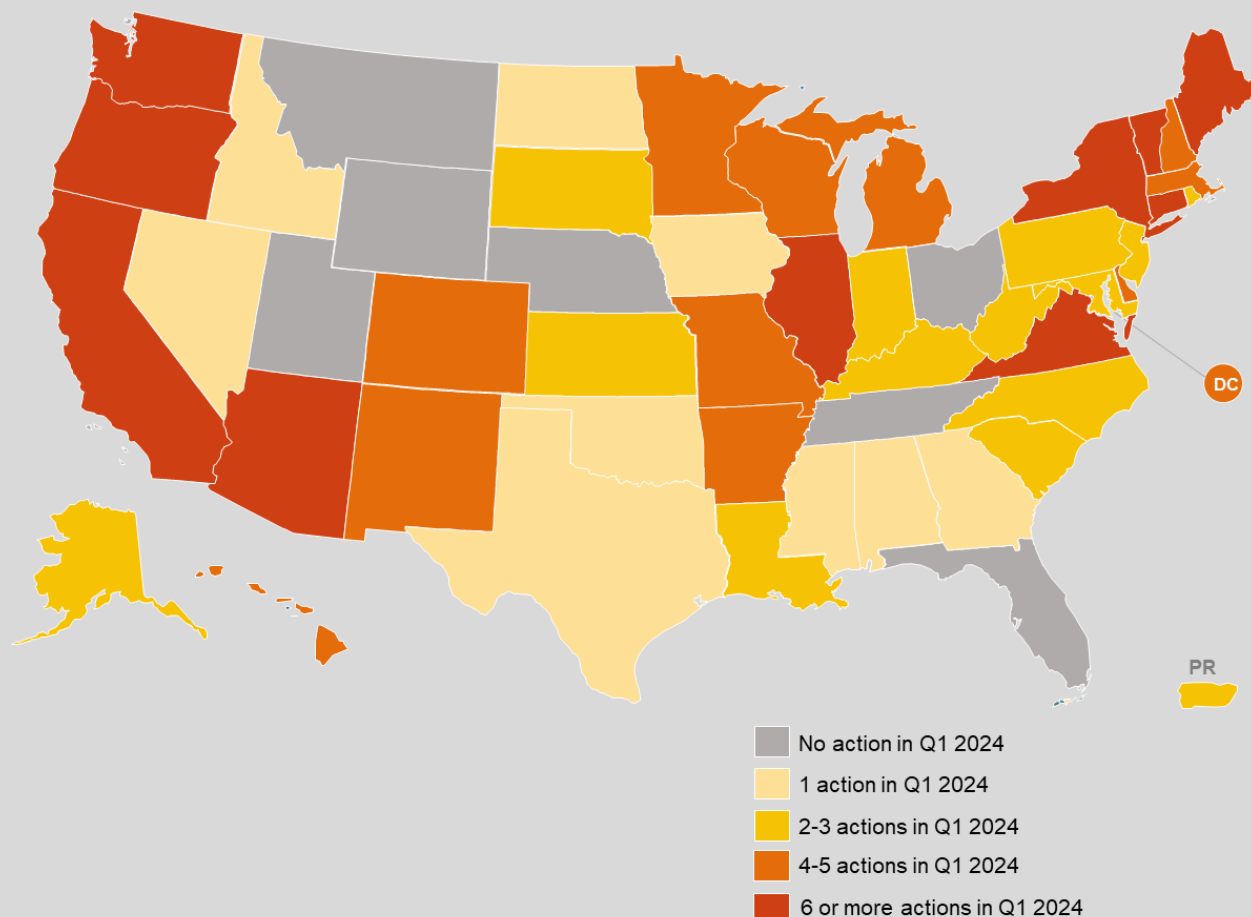
The Massachusetts Department of Public Utilities approved rule changes in February 2024 that allow net metering facilities to transfer credits to customers of other distribution companies in the state and across ISO-New England load zones within the state. The decision also exempts certain systems from the state's net metering caps, among other modifications.

Delaware Lawmakers Initiate Net Metering Cost-Benefit Study

Delaware lawmakers enacted legislation in February 2024 directing the Delaware Sustainable Energy Utility to conduct a cost-benefit study and analysis of net metering across electric

utilities in the state. A report detailing the findings is to be submitted by December 31, 2024, and all utilities offering net metering in the state are required to participate in the study.

Figure 1. Q1 2024 Action on DG Compensation, Rate Design, & Solar Ownership Policies, by Number of Actions



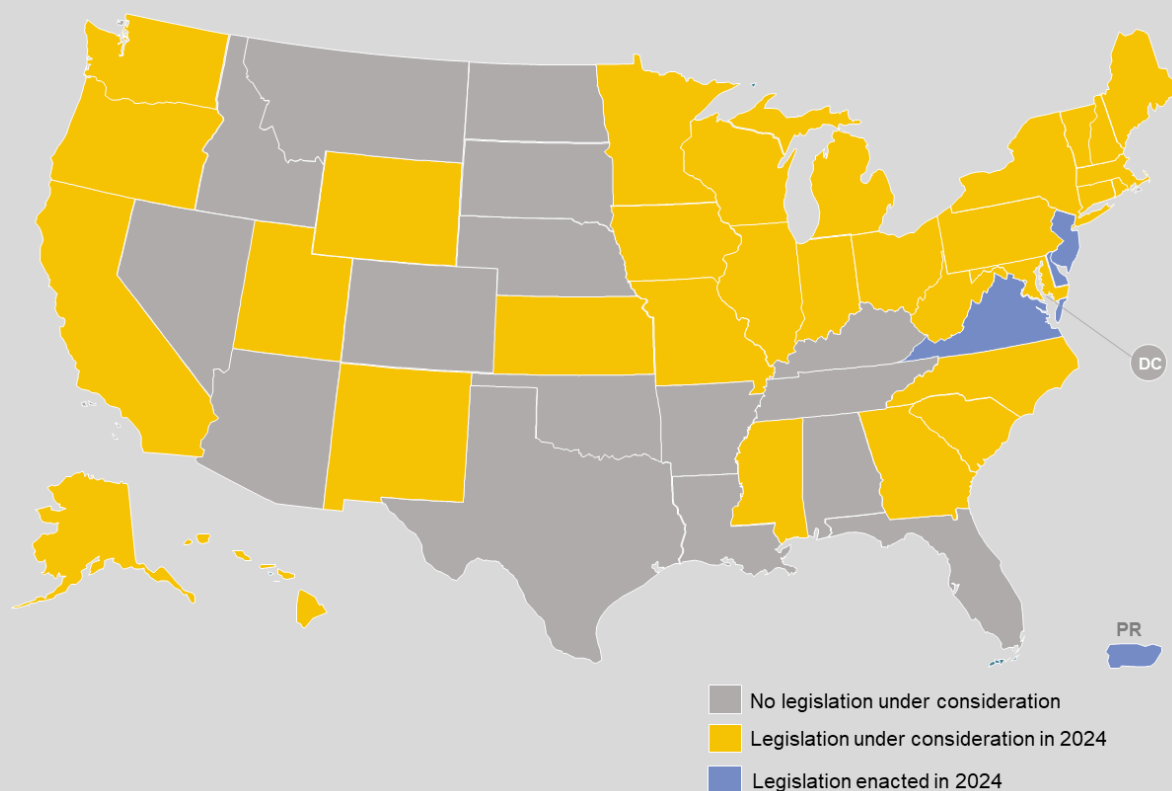
Virginia Legislators Expand Shared Solar Programs

Virginia legislators recently passed multiple bills expanding access to solar energy for customers in the state. Included in these bills are provisions increasing the aggregate capacity of Dominion Energy’s shared solar program and directing regulators to develop a similar shared solar program for Appalachian Power. Another bill under consideration by the governor would expand the legality of solar leasing and third-party power purchase agreements in the state.

West Virginia Public Service Commission Approves Net Metering Reforms

The West Virginia Public Service Commission approved a settlement agreement in Monongahela Power & Potomac Edison's recent rate case, which adopts net metering reforms. The decision sets export credit rates at 8.91 to 9.343 cents per kWh, depending on customer rate class, for customers applying for net metering beginning January 1, 2025. Settling parties specified that credit rate changes could not exceed 10% per year, although the Commission clarified that it is not held to this guideline and has ultimate approval.

Figure 2. DG Compensation, Rate Design, and Solar Ownership Legislation Under Consideration in 2024 (as of mid-April 2024)



Arizona Corporation Commission Approves New Grid Access Charge

The Arizona Corporation Commission approved a new grid access charge for residential customers with on-site generation, which was proposed by Arizona Public Service as part of its latest rate case. The approved charge equals \$0.242 per kW-DC of on-site generation for customers on standard time-of-use rates and \$0.215 per kW-DC for customers on the time-of-use rate including a demand charge. Several participants have filed petitions for rehearing to overturn the grid access charge.

THE BIG PICTURE: INSIGHTS FROM Q1 2024

States Considering Legislation to Enable Community Solar

With legislative sessions underway, many states that do not currently have community solar policies have been considering legislation to enable community solar. Pennsylvania's state house passed a bill that would establish a community solar program, while bills pending in Michigan, Ohio, and Wisconsin would also create new community solar programs. Legislation introduced in Missouri directs electric suppliers to create three-year community solar pilot programs, and bills introduced in Alaska would also require utilities to create community energy programs. Georgia legislators considered a bill that would establish a community solar program, while lawmakers in Indiana considered a bill directing regulators to create community solar program allowing third parties to be community solar providers. In Iowa, legislators considered a bill to establish a shared solar net metering cooperative program, and West Virginia policymakers introduced legislation to create a community solar pilot program.

Net Metering Reform Efforts Moving to New States

New states are beginning to consider net metering reforms, as an overarching trend of states moving away from traditional retail rate net metering continues. Lawmakers in Delaware recently approved legislation to conduct a net metering cost-benefit study – often a first step for states in consideration of net metering changes. In Oregon, Idaho Power has proposed adopting its new Idaho net metering successor tariff for its Oregon customers as well. In Kentucky, Duke Energy requested approval for a net metering successor tariff that would involve real-time netting and reduced compensation for exported energy for new customer-generators. Meanwhile, Wisconsin regulators are conducting a value of solar study, and a Washington utility is preemptively amending net metering tariff language to close the tariff upon reaching an aggregate cap.

States Clarifying Net Metering Rules for Customers on Time-of-Use Rates

As time-of-use rate options and participation rates increase, states and utilities are taking steps to clarify how net metering is conducted for customers taking service on time-of-use rates. Kansas lawmakers considered legislation specifying that netting would take place within time-of-use periods for customers on these rates. In Maryland, the Public Service Commission issued an order in March 2024 directing its rate design working group to examine utility tariffs and propose any needed charges for net-metered customers under time-of-use rates. The Commission is particularly interested in changes for cases where customer-generators consume more energy than they generate during peak periods, but generate more energy than they consume during off-peak periods. Legislation under consideration in South Carolina would increase the state's net metering system size limit, but only for customer-generators on time-of-use rates.

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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