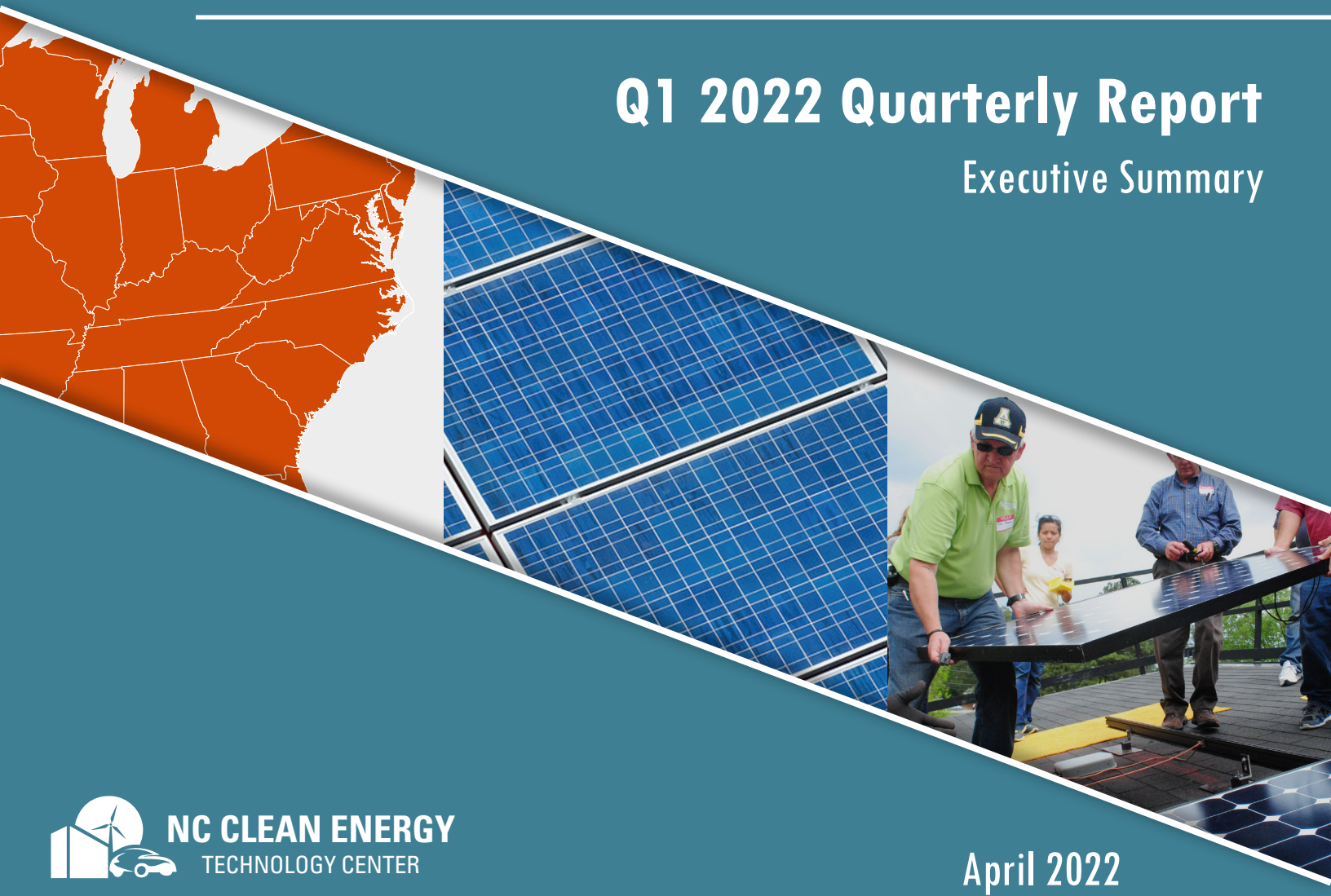
50 States of SOLAR

Q1 2022 Quarterly Report

Executive Summary



NC CLEAN ENERGY TECHNOLOGY CENTER

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AUTHORS

Rebekah de la Mora
Brian Lips
Vincent Potter
Autumn Proudlove
David Sarkisian

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.

CONTACT

Autumn Proudlove (afproudl@ncsu.edu)

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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* and the *50 States of Electric Vehicles* 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 2022 POLICY ACTION

In the first quarter of 2022, 39 states plus DC took a total of 195 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 2022. Of the 195 actions cataloged, the most common were related to DG compensation rules (64), followed by community solar (51), and residential fixed charge and minimum bill increases (31).

Table 1. Q1 2022 Summary of Policy Actions

Policy Type	# of Actions	% by Type	# of States
DG compensation rules	64	33%	29
Community solar	51	26%	19 + DC
Residential fixed charge or minimum bill increase	31	16%	19
Residential demand or solar charge	17	9%	10
Third-party ownership of solar	16	8%	8
DG valuation or net metering study	12	6%	10
Utility-led rooftop PV programs	4	2%	4
Total	**195**	**100%**	**39 States + DC**

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 2022

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

Indiana Court Reverses Commission Decision on Net Metering Successor Tariff

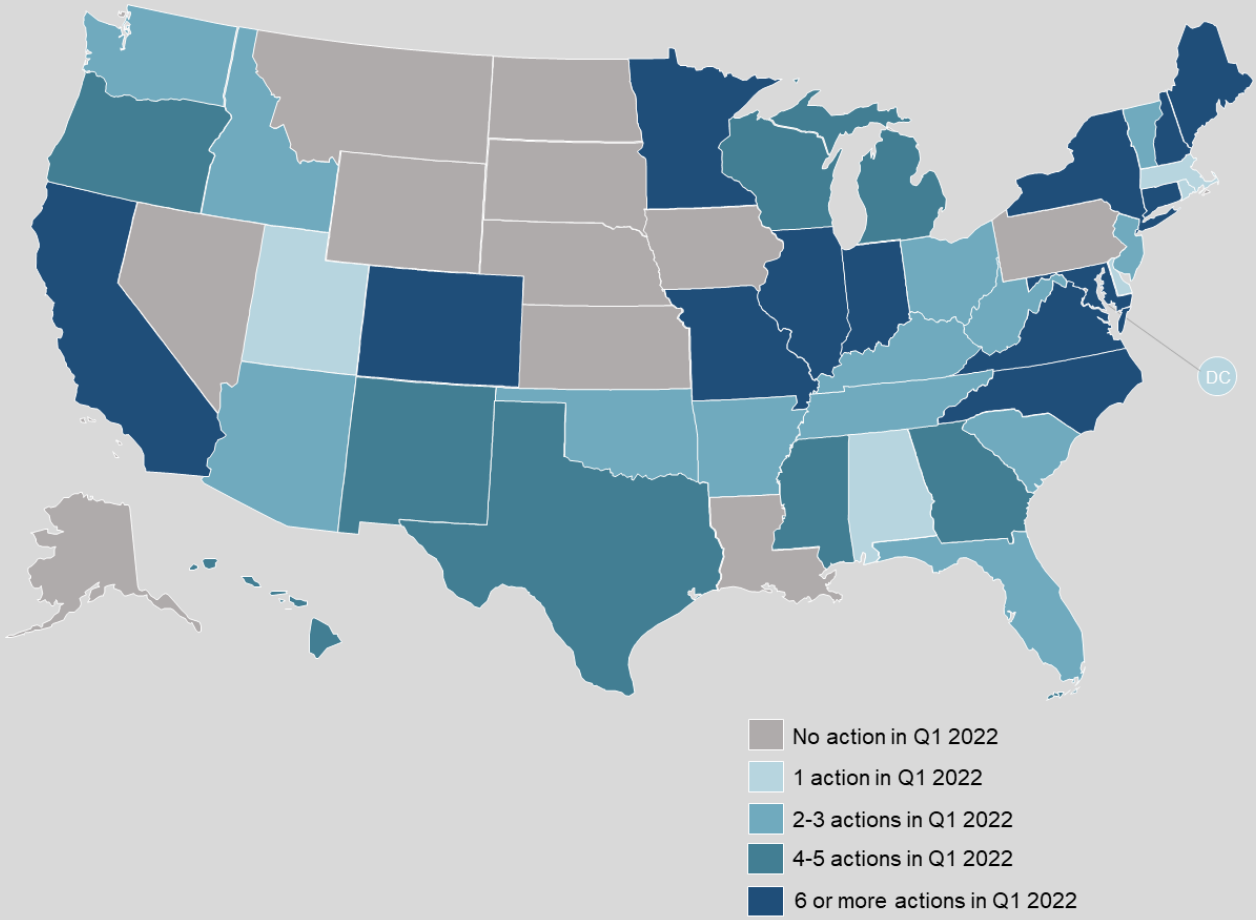
In January 2022, the Indiana Court of Appeals issued a decision finding that Vectren's recently approved net metering successor tariff utilizing instantaneous netting is in conflict with Indiana's distributed generation statute. The Court determined that while the statute authorizes a change in excess generation credit rates, it doesn't authorize a change from the monthly netting period.

Florida Lawmakers Pass Net Metering Reform Legislation

Florida legislators passed a major net metering reform bill in March 2022, which would gradually decrease excess generation credits until 2029, while grandfathering customers for

20 years. Beginning in 2029, or when a utility reaches net metering penetration of 6.5% of summer peak demand, the state's net metering rules are to compensate all energy delivered to the utility at the full avoided cost rate. Utilities may also propose additional fees for customer-generators.

Figure 1. Q1 2022 Action on DG Compensation, Rate Design, & Solar Ownership Policies, by Number of Actions



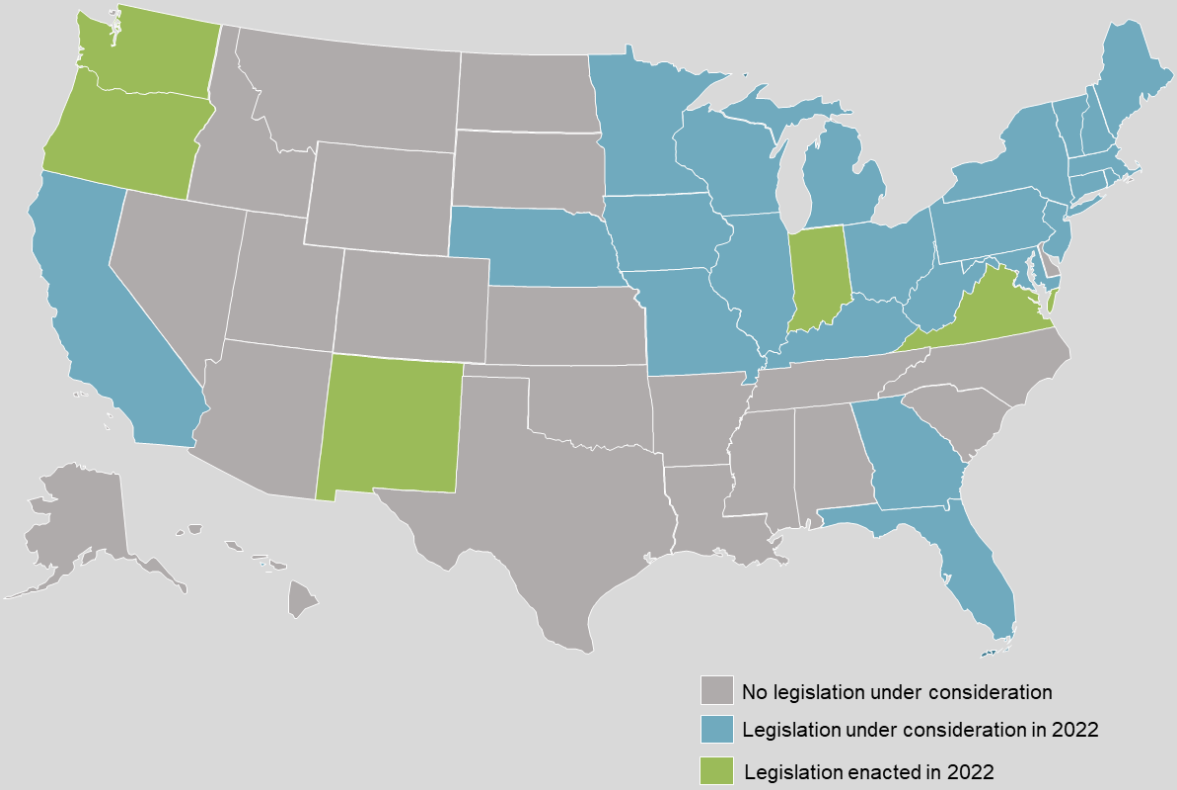
Mississippi Public Service Commission Files Proposed Net Metering Rules

The Mississippi Public Service Commission released proposed net metering rule revisions in January 2022. The proposed rules would not modify the current net metering pricing and would keep the non-quantifiable benefits and low-income adders in place for 25 years from the date a customer begins net metering. The rules also propose rebates for residential net metering customers, allow customers to keep renewable energy certificates, and authorize utilities to file fully-costed fixed customer charges for residential customers.

DTE Electric Proposes Demand Charge for Distributed Generation Customers

As part of a general rate case filed in January 2022, DTE Electric requested approval for a net metering successor tariff, implementing the inflow-outflow model approved by the Michigan Public Service Commission. DTE is also proposing a new fee for residential distributed generation customers, which would be based on the three highest 60-minute demands for the customer over the past year.

Figure 2. DG Compensation, Rate Design, and Solar Ownership Legislation Under Consideration in 2022 (as of 4/15/2022)



Hawaii Regulators Establish Framework for New Smart DER Tariff

The Hawaii Public Utilities Commission issued a decision in January 2022 regarding modifications to HECO's distributed energy resource (DER) tariffs. The decision approves the framework for a new Smart DER Tariff design, featuring export and non-export riders, as well a requirement for participants to enroll in time-of-use rates. The decision established a plan to transition customers from the current DER tariffs to the smart DER Tariff, and the credit rate for grid exports will be determined in Phase 2 of the proceeding.

THE BIG PICTURE: INSIGHTS FROM Q1 2022

States Exploring Incentives in the Context of Net Metering Reforms

Several states have been recently considering incentive programs within the context of net metering successor tariffs. In Mississippi, the Public Service Commission's proposed net metering rules would implement a new solar rebate program for residential customers. Meanwhile, a solar rebate program for smart thermostat program participants became a key feature of the net metering successor tariff design proposed by Duke Energy in the Carolinas. The successor tariff was approved in South Carolina, with the exception of the rebate, and is currently under consideration in North Carolina. In California, the Public Utilities Commission's proposed decision on the Net Metering 3.0 design includes a new energy storage rebate for existing net metering customers voluntarily switching to the Net Metering 3.0 tariff during the first year of implementation. Illinois' successor tariff, to be implemented in 2025, will also involve upfront rebates with reduced compensation for exported electricity.

New States Considering Community Solar Programs

A number of states considered the adoption of new community solar programs during the first quarter of 2022. Mississippi regulators opened a new proceeding to address community solar, with stakeholders filing their recommendations. In several other states, legislators are considering bills that would enable community solar development. The Missouri Senate passed two bills that would create a task force to consider potential community solar legislation. In other states, many community solar bills are under consideration that have not yet passed a chamber. Proposed legislation in Michigan would authorize third-party community solar facilities up to 5 MW, while Ohio bills would allow for community solar projects or virtual net metering. Multiple community solar bills are pending in Pennsylvania, which would each create a state community solar program with a different design. Bills introduced in West Virginia and Wisconsin would also open the door to community solar project development.

Proposing Low-Income Customer Provisions in Net Metering Rules

While including mechanisms to encourage low-income customer participation has been a common theme in community solar programs, some states are beginning to consider specific net metering provisions to facilitate the adoption of distributed generation by low-income customers. In Connecticut, the state's residential net metering successor program includes a credit adder for low-income customers, while Mississippi regulators are proposing a new rebate program for low-income customers as part of their net metering rule revisions. Meanwhile, the California Public Utilities Commission's proposed Net Metering 3.0 design would exempt low-income customers from the grid participation charge and provide a higher market transition credit.

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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