



Opinion **Dynamics**

Renewables: Debunking Myths and Increasing Access

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Flexibility



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Myth #1:

“Only affluent customers have solar on their homes.”

California is leading the nation in rooftop PV – But who has it?

Top Five States	Distributed Solar Capacity (MW)	Solar Customers: % <\$100k
California	14,479	40%
New York	3,950	39%
Massachusetts	2,805	43%
Arizona	2,442	59%
New Jersey	2,422	42%

Source: Institute for Local Self-Reliance (2022)

Source: Lawrence Berkeley National Laboratory (2021)

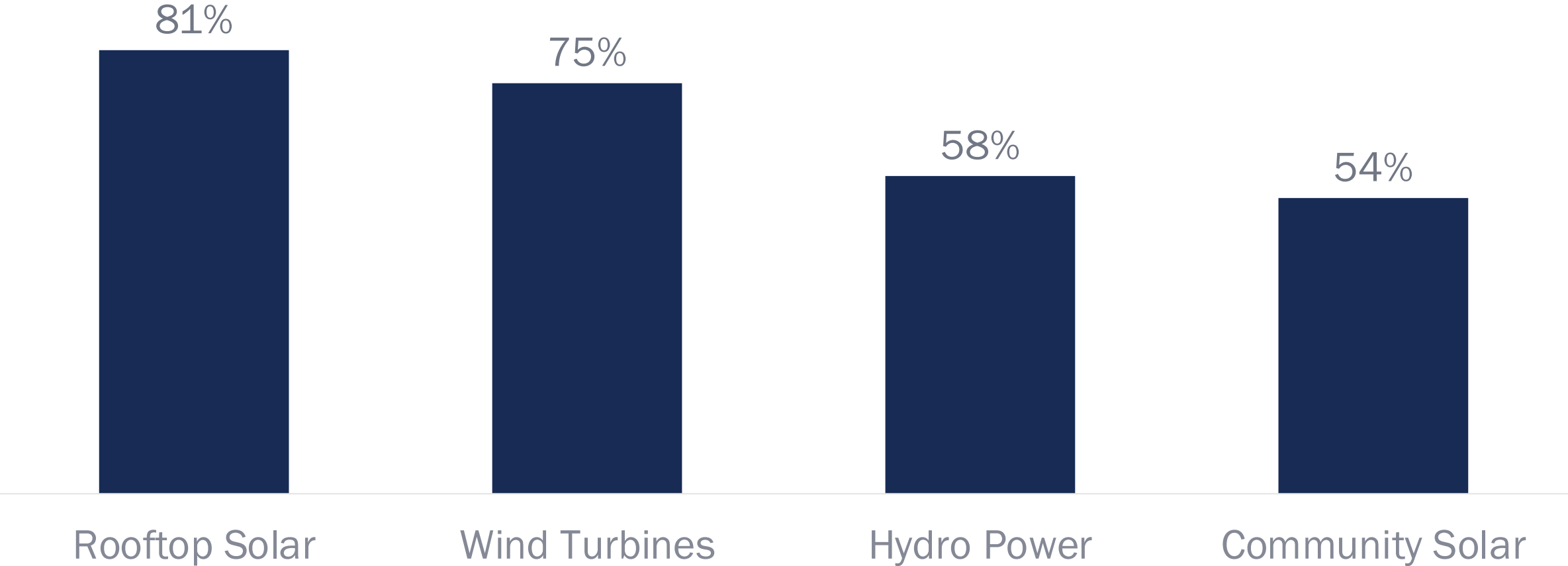


MYTH #2:

“The only way to access renewable energy is to install solar panels on your home.”

Community Solar is not as widely known as Rooftop Solar

Residential Consumer Familiarity with Renewable Energy Sources



Source: SECC's Renewables: Engaging Consumers in the Clean Energy Transition Study (2023)

Broadening Access: Green Rate and Community Renewables Programs



Green Tariff Shared Renewables

- Offered by IOUs at market rate
 - Industrial
 - Commercial
 - Residential
 - DACs
- Required to be rate neutral
- Response to SB43
- Program to date enrollment ~266MW

Green Tariff Shared Renewables Program components

Green Tariff

- Customer pays the difference between the current generation charge and the cost of procuring 50%–100% renewables
- Could be a slight discount or slight premium, depending on IOU and year
- Early enrollment success due to rate discounts; discounts not sustainable as the program grew
- Closed/suspended/waitlisted

Enhanced Community Renewables

- Customer purchases share of renewable project directly from developer, gets bill credit for avoided generation procurement
- Consistently discounted rate
- The RFP process for IOUs to choose new developments for increased solar demand did not lead to new development contracts
- No projects currently available



Myth #3:

“The industry doesn’t understand the modern consumer’s relationship with renewable energy.”

CPUC Green Tariff Shared Renewables Research Objectives

- Gauge interest in green rates/community solar
- Gauge willingness to pay for green rates/community solar, including what attributes customers find least/most valuable
- Understand market needs for rates and clean energy procurement to meet personal or corporate sustainability goals
- Gather customer perception of green tariff and community solar products

CPUC Green Tariff Shared Renewables Research Plan

Data Collection Method



Targeted Completions by Segment	Industrial	Commercial (small and large)	Residential	Sample Source
Current Participants	Census (~10)	Census (~20)	200	IOU participant databases
Potential Participants	20	350	200	Purchased panel (residential); IOU databases (C&I)
Previous Participants	Census	Census (~10)	200	IOU previous participant database

Hot off the press – SECC's latest study!



- What do consumers know about renewables?
- What are their misconceptions about renewables?
- Do consumers support renewable targets set in place by the federal government? How important are these to them?
- Would consumers pay more to use renewable energy? Would they participate in renewable energy programs?
- What messaging would motivate consumers to support renewable energy initiatives?

SECC's 2023 Renewables Study: Key Myths That Need Busting



45%

“Solar panels are expensive to maintain”



23%

“Wind turbines produce low frequency or infrasound that is dangerous to human health”



47%

“Willing to pay more for renewables”

- 44% “\$5 more”
- 19% “\$10 more”
- 1% “>\$20 more”



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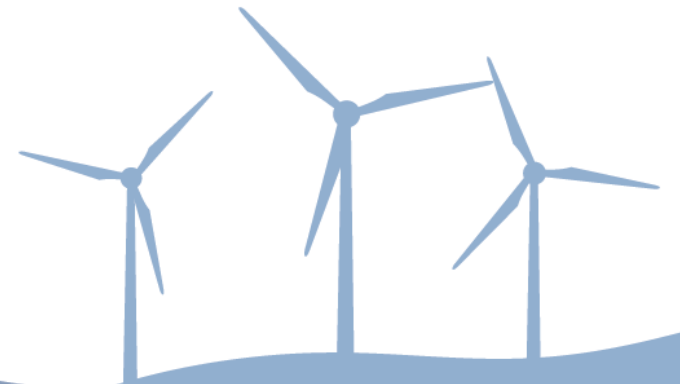
Questions?

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Community Solar Program Design for Additional Benefits

Vincent Potter, Policy Analyst
NC Clean Energy Technology Center
SECC Fall Workshop and Member Meeting
October 5, 2023

NC Clean Energy Technology Center

- UNC System-chartered Public Service Center administered by the College of Engineering at North Carolina State University

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- Objective research, analysis, & technical assistance – no advocacy
- Database of State Incentives for Renewables and Efficiency (DSIRE – www.dsireusa.org)

Solar in the Southeast

? of the top 10 are in the Southeast (*SEIA 2023*)

How many states in the Southeast?

Solar in the Southeast

4 of the top 10 are in the Southeast (*SEIA 2023*)

Florida: 10,111 MW

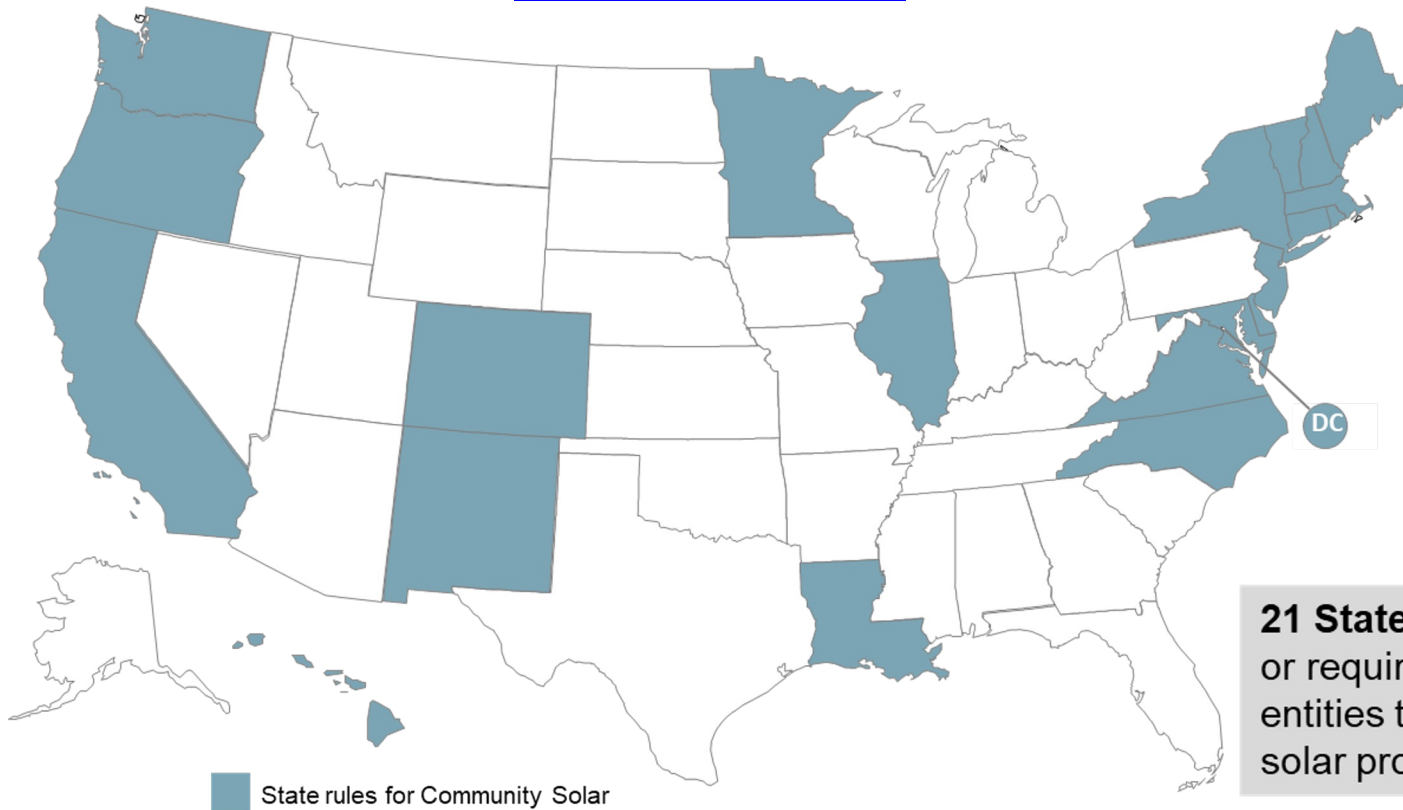
North Carolina: 8,179 MW

Georgia: 5,033 MW

Virginia: 4,286 MW

Community Solar Rules

www.dsireusa.org / September 2022



21 States have rules that allow or require utilities or other entities to develop community solar programs.

Community Solar Research

- American Rescue Plan Act 2022
- Community Solar Access for Low and Moderate-Income Utility Customers
- Partnerships - Cooperatives and Municipal Utilities

NC Cooperatives and Munis

NC CETC distributed Survey in May 2022

- Community Solar Question Topics
 - Outreach Approaches (LMI-focus)
 - Net bill savings
 - Expansion Plans
 - Program costs covered
 - Considerations to increase LMI savings

NC CETC Survey Take Aways

- Contact Methods
 - Mass email, letters, flyers/mailers, presentations
- Success levels
 - Mostly achieved target, some short waitlists.
- Expansion Plans
 - If program is successful, trend toward expansion.

NC CETC Survey Take Aways

- Does Community Solar recover its costs?
 - Mostly yes, some reliance on philanthropy.
- Methods for additional subscriber savings
 - O&M process improvements, adding storage for additional services, grant program

Community Solar Research

- Program design options
 - Opt out, anchor tenant
- Contract structures
 - Meeting all-resource or wholesale requirements
- Valuation
 - Solar output potential
 - New approaches (storage, deferral)

Potential Benefits from Solar

- Energy reductions
- Demand reductions
 - Coincident Peak (Utility) and/or Local Peak (Customer)
- Infrastructure Deferrals

Note on Resiliency

Potential benefit

- Community hubs, backup power
- System design considerations
 - *Requires storage and dispatch plan*
- Community partnerships

Barriers to Solar

- "Premium" perception
- Community Solar Recruitment/Retention
- Siting
- Wholesale Contract Limitations

Takeaways

- Demonstrate value/savings
 - Customer and utility
- Opt-out design
 - Streamline enrollment, communications
- Storage to add value for utility
 - Peak shaving, resiliency

Thank you!