



U.S. DEPARTMENT OF  
**ENERGY**

**NREL**  
Transforming ENERGY

 **BERKELEY LAB**



# The National Community Solar Partnership

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NASUCA 2023 Annual Meeting

# What is Community Solar?

DOE defines community solar as any solar project or purchasing program, within a geographic area, in which the benefits of a solar project flow to multiple customers such as individuals, businesses, nonprofits, and other groups.

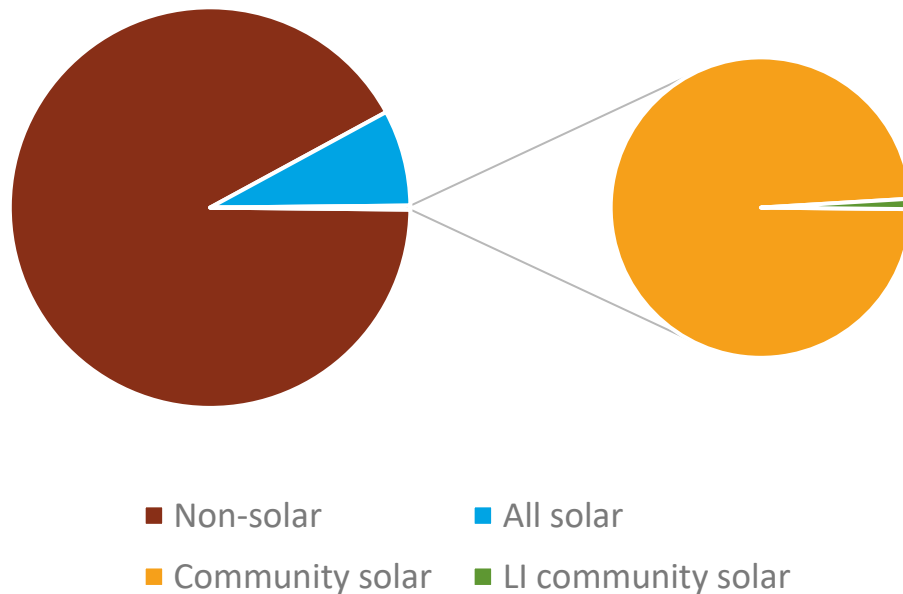
## Community solar...

- Allows households who cannot access rooftop solar to access the **benefits of solar energy** (which can be due to barriers such as rooftop suitability, cost, or tenancy).
- Creates subscriptions, benefits, and/or **ownership opportunities** that participants can access for a portion of electricity produced.
- Typically **provides participants with an electric bill credit** for electricity generated by their share of the system.
- **Can provide meaningful benefits** such as low-income access, electric bill savings, resilience, community wealth building, and workforce opportunities.



# Community Solar Opportunity

- 42% of households and 44% of businesses **cannot** host a PV system of adequate size on their property or virtually net meter an entire system themselves
- Solar represents <10% U.S. electric generation capacity
- Community solar represents <5% of solar
- Mandated or incentivized LMI community solar represents <2% of community solar.

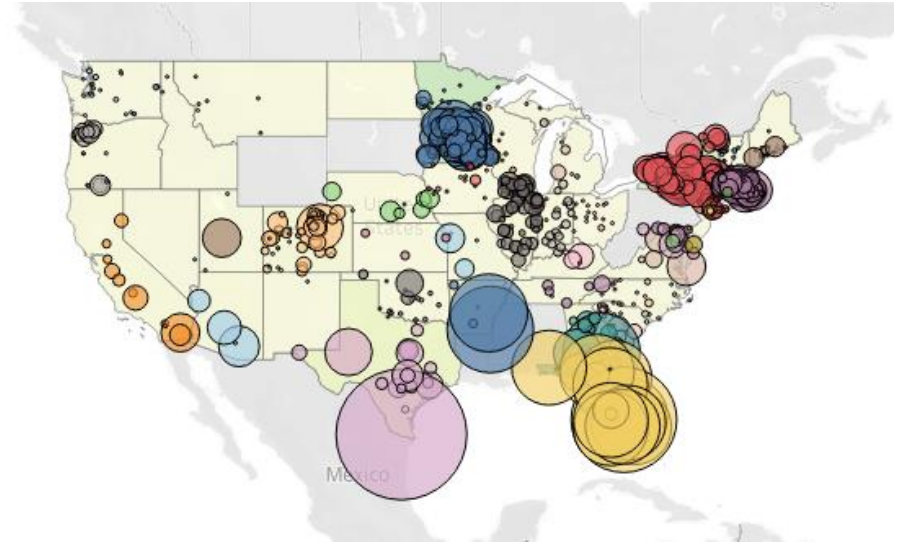


Sources: EIA, SEIA, NREL, NREL (unpublished)

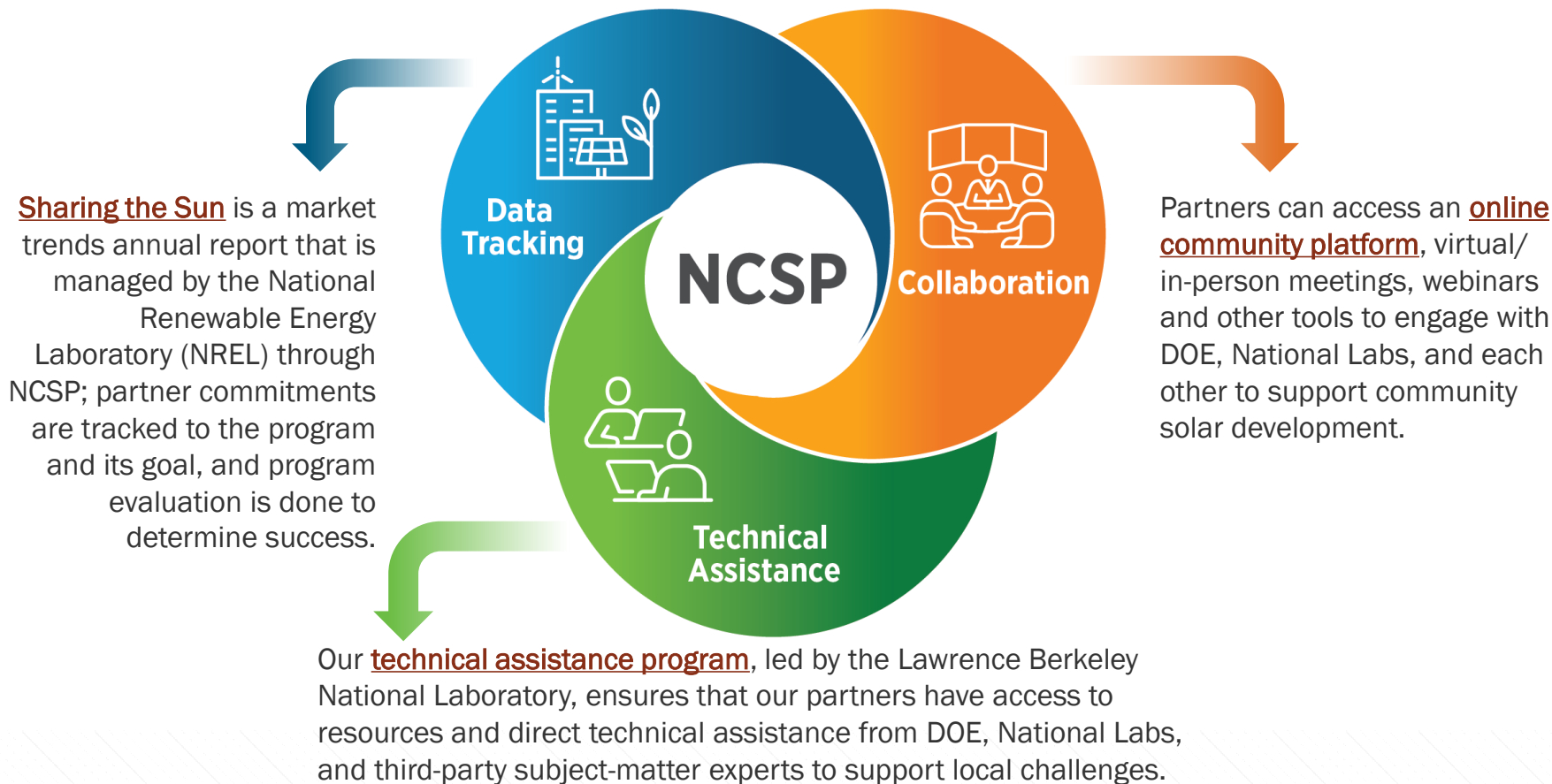
# Community Solar Market is Growing but Remains Highly Segmented

- >5.02 GW-AC, 1,900 projects located in 40 states and Washington, D.C.
- Cumulative community solar capacity has grown by about 121% year over year since 2010, in other words, capacity has more than doubled on average year over year
- About 1.6 GW came online in 2021 alone
- >90% of cumulative capacity is located in 10 states

Community Solar Capacity as of January 2022 (MW-AC)



# The National Community Solar Partnership



# National Community Solar Partnership Target



**5 million**

HOUSEHOLDS\*

\*EQUIVALENT



**\$1 billion**

IN ENERGY BILL  
SAVINGS



BY **2025**

Represents an increase  
from **3 GW to 20 GW** of  
community solar capacity



\$1 billion in savings  
reflects an average  
**bill reduction of 20%**

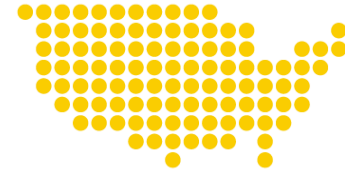
# The National Community Solar Partnership



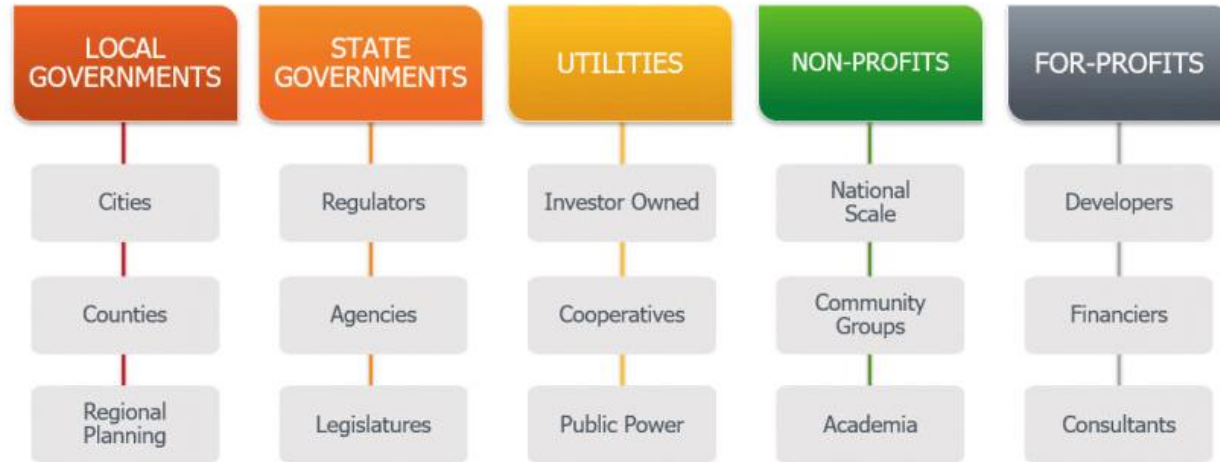
**>1500**  
PARTNERS



**>1000**  
ORGANIZATIONS



**50**  
STATES





# Pathway to Success Priorities

TECHNICAL  
EXPERTISE  
AND CAPACITY  
BUILDING



STATE  
ENGAGEMENT



ACCESS  
TO CAPITAL



CUSTOMER  
ENGAGEMENT



EDUCATION  
AND OUTREACH



**NCSP  
TARGET**

5 million households  
and \$1 billion in  
savings by 2025

**Resulting in...**

- ★ An average 20% energy bill reduction
- ★ 700% increase in community solar capacity

## Meaningful benefits:

Greater household savings; LMI household access;  
Resilience and grid benefits; Community ownership;  
Workforce development and entrepreneurship

COMMUNITY-BASED ORGANIZATIONS | STATE AND LOCAL GOVERNMENT | DEVELOPERS | INVESTORS | PHILANTHROPISTS | UTILITIES | CUSTOMERS



# Pathway to Success Initiatives



## Sunny Awards for Equitable Community Solar

In 2022, there was a \$100,000 prize competition that recognizes community solar projects and programs that employ meaningful benefits of community solar. Grand prize winners awarded in January 2023. [Learn more.](#)

## Low-Income Clean Energy Connector

In 2022, work began in collaboration with partner states on a tool to connect energy assistance recipients with community solar subscriptions with consumer protections and meaningful savings. [Learn more.](#)

## Community Power Accelerator

Connecting developers, investors, philanthropists, and community-based organizations to create an ecosystem of partners to deploy equitable community solar. In January 2023, launched a \$10 million prize competition to support new, emerging, and expanding developers. [Learn more.](#)

## States Collaborative

Collaborative of 32 states and territories engaging in peer-learning and technical assistance support to expand state community solar markets. [Learn more.](#)

## Direct Technical Assistance Program

Assistance provided through our partners to NCSP members to support policy and regulation research, project financing analysis, outreach and engagement strategies, program design, and technical issues. [Learn more.](#)

# Meaningful Benefits of Community Solar



## GREATER HOUSEHOLD SAVINGS

- Provide a reduction in electricity bills for residential subscribers to a project

**Justice40 Priority 1:**  
Reduce Energy Burden



## LMI HOUSEHOLD ACCESS

- Include subscribers from low- to moderate-income (LMI) households

**Justice40 Priority 3:**  
Increase Clean Energy Parity



## RESILIENCE AND GRID BENEFITS

- Include the capability to deliver power to households and/or critical facilities during a grid outage or strengthen grid operations

**Justice40 Priority 7:**  
Increase Energy Resiliency



## COMMUNITY OWNERSHIP

- Local community members, subscribers, or local community organizations own or have equity in the project
- Other wealth-building strategies

**Justice40 Priority 8:**  
Increase Energy Democracy



## WORKFORCE DEVELOPMENT AND ENTREPRENEURSHIP

- Support prevailing wages and pre-apprenticeship and apprenticeship programming
- Ensure women- and minority-owned businesses have equitable opportunity

**Justice40 Priority 6:**  
Increase Clean Energy Jobs

# Technical Expertise and Capacity Building

NCSP Partners can apply for **no cost, on demand** technical assistance support in 5 areas:



**POLICY, LEGISLATION,  
AND REGULATION  
RESEARCH**



**PROJECT  
FINANCING  
ANALYSIS**



**OUTREACH AND  
ENGAGEMENT  
STRATEGIES**



**PROGRAM  
DESIGN**



**TECHNICAL  
ISSUES**

Organizations can receive support in a variety of formats including:

Consultation on  
program processes and  
policies and technical  
review of proposed  
plans and models.

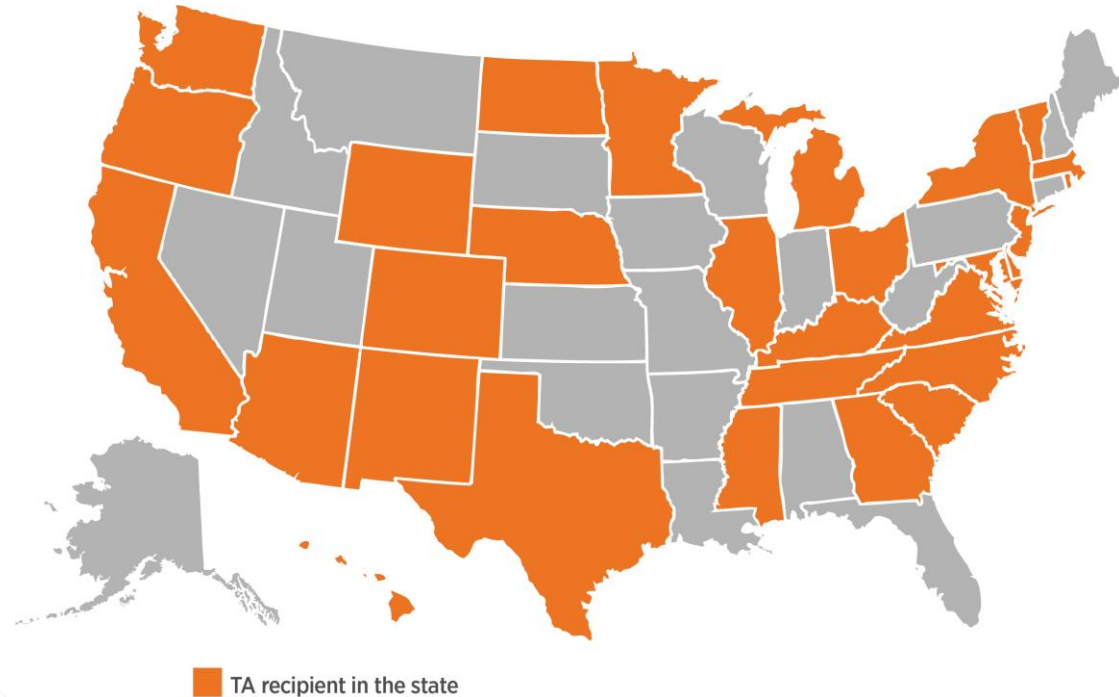
Technical and financial  
analysis and modeling  
of potential program  
costs, benefits  
and impacts.

Custom research such  
as market studies  
or third-party  
white papers.

Custom publications  
such as toolkits,  
tip sheets, or  
case studies.

## Technical Expertise and Capacity Building

- NCSP has provided **135 direct technical assistance engagements - totaling over 1,915 hours** - since its launch to recipients in 30 states, the District of Columbia, Puerto Rico, and the U.S. Virgin Islands.
- The geographic reach of the Direct TA program has been broad.





# State Engagement

## States Collaborative

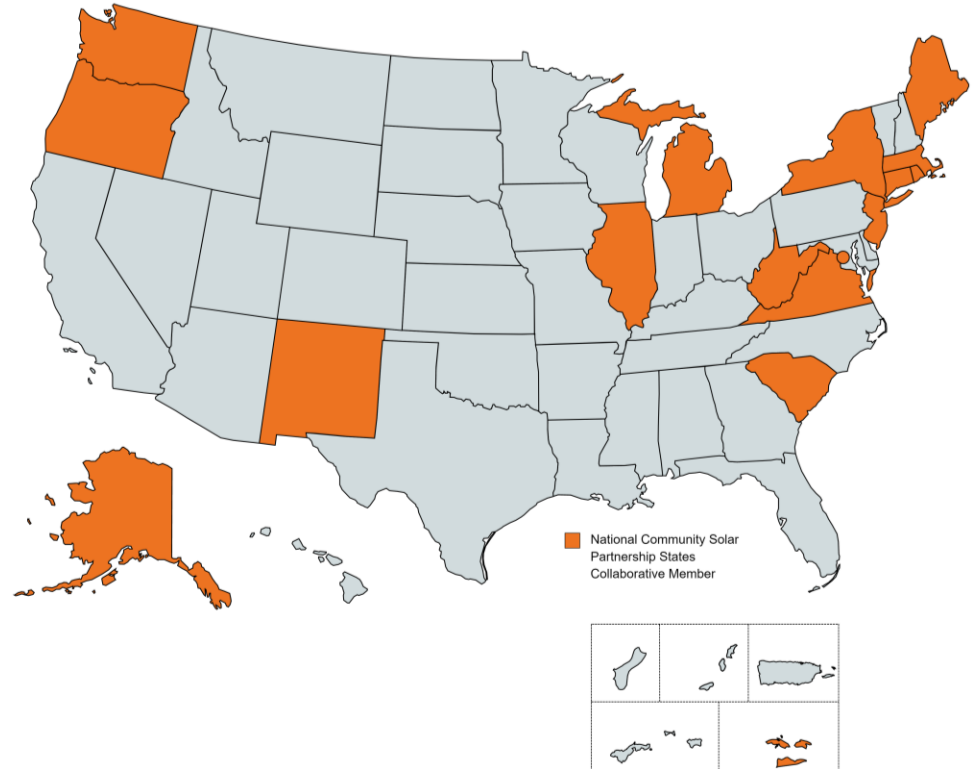
Launched in February 2022, the States Collaborative is open to all states and territories who want to engage in peer learning and technical assistance on community solar.

As of March 2023:

- **17 states and territories** are official States Collaborative participants
- **32 states and territories** participate in the States Collaborative

**State participants span types of markets:**

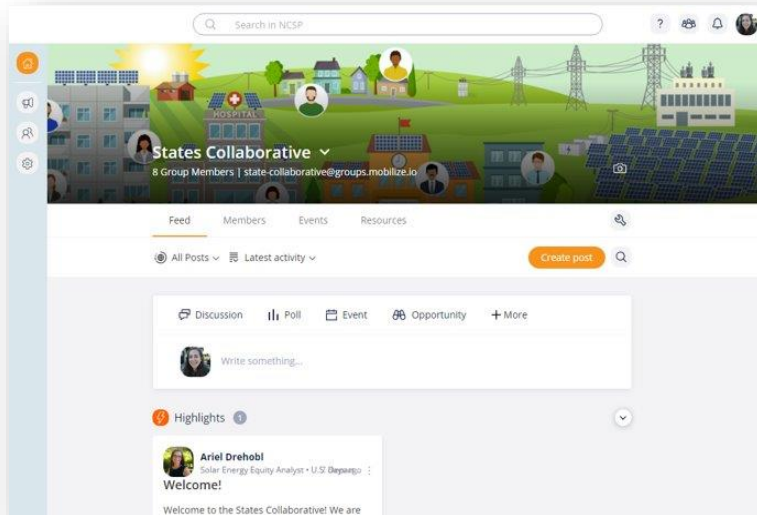
- 3 participating states do not yet have community solar enabling legislation
- Participants include some of the most developed markets





# State Engagement

## States Collaborative



### Peer to Peer Learning:

- Meeting topics included community ownership models, data collecting and reporting, interconnection, developer engagement, workforce development, stakeholder engagement, cost-shifting, and state market data

### Action Planning:

- NCSP supported **13** state Action Plans to identify short and long-term actions for achieving their targets and provide tailored technical assistance

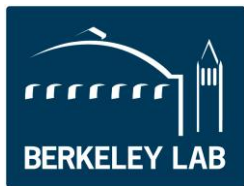
### Technical Assistance:

- NCSP provides direct and group technical assistance to members of the States Collaborative



# Access to Capital

## Community Power Accelerator



### Goals:

- Standardize equitable access to community solar financing,
- Expand capacity and expertise for community-led, community-focused deployment, and
- Build a robust project pipeline with meaningful benefits





# Community Power Accelerator Elements



Online Platform with Partner Commitments

Credit-Ready Checklist, Organization and Project Profiles

Community Power Learning Lab

Philanthropy-Ready Guide

Technical Assistance Programming

Prize Funding



# NCSP Progress: Access to Capital Community Power Accelerator Impacts



As of October 2023...

- Almost **100** partner commitments from investors, philanthropic organizations, and developers
- Commitments leverage **over \$5 billion** from the private sector
- Community Power Accelerator Prize designed to support **at least 25 MW** with **\$10 million** in prize funding

# Community Power Accelerator Inaugural Partners



THE  
KRESGE  
FOUNDATION



Wells Fargo  
Foundation



INCLUSIVE  
PROSPERITY CAPITAL



CLIMATE  
IMPACT CAPITAL



Coastal Enterprises



BQUEST  
FOUNDATION

EnhancedCapital



sunwealth®



CollectiveSun™



URBAN INGENUITY



Montgomery County  
**GreenBank**  
Your partner for clean energy

CLEAN  
ENERGY  
FUND  
OF TEXAS



Hawaii Green  
Infrastructure Authority



Raise Green



Climatize



Hawaii Green  
Infrastructure Authority



Raise Green

Triple Bottom Line  
Foundation



Baltimore Community  
Foundation



CIGP  
COMMUNITY INVESTMENT  
GUARANTEE POOL



conductor  
solar

LSC



# Community Power Accelerator Prize

The Community Power Accelerator Prize is a \$10 million, three-phase prize.

The prize is designed to **fast-track the efforts of new, emerging, and expanding solar developers and co-developers** to learn, participate in, and grow multiple successful community solar projects.

By the end of the prize, competitors will be ready to **engage with the Community Power Accelerator** online platform.

Learn more: [energy.gov/communitysolar/community-power-accelerator](https://energy.gov/communitysolar/community-power-accelerator)



# Low Income Clean Energy Connector Overview

NCSP is partnering with the U.S. Department of Health and Human Services (HHS) to develop and pilot a digital tool that will identify and make **community solar with verified savings and strong consumer protections more accessible** to households participating in a U.S. government-run low-income support programs (i.e., the Low Income Home Energy Assistance Program/LIHEAP).

## Main Project Partners



## Additional Project Partners



National  
Consumer Law  
Center

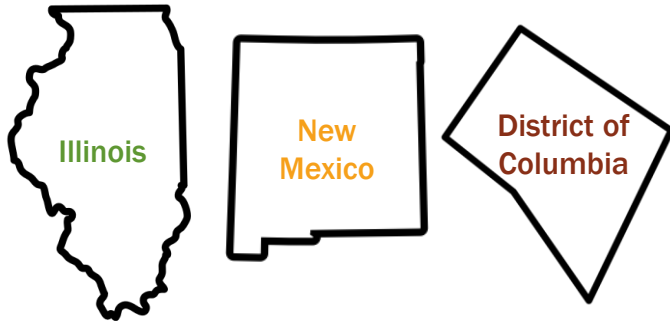


Learn more: <https://www.energy.gov/communitysolar/community-solar-subscription-tool>

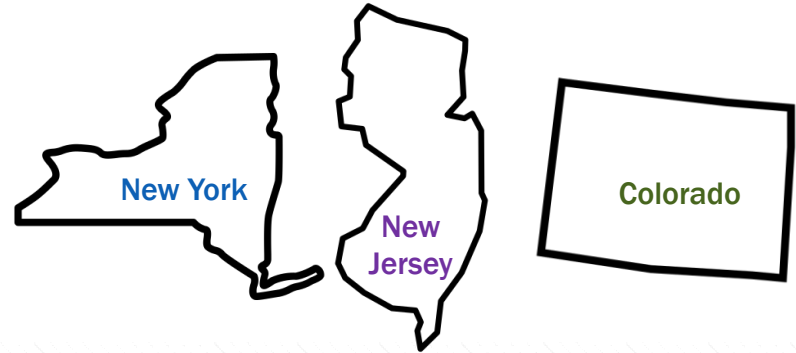
# Connector Partner States

- Six states signed on in 2022 to support the initial project development
- Pilot states will initially pilot the beta tool in fall 2023 – winter 2024
- Advising and additional states can pilot and use the connector in 2024

## Pilot States/Regions



## Partner States

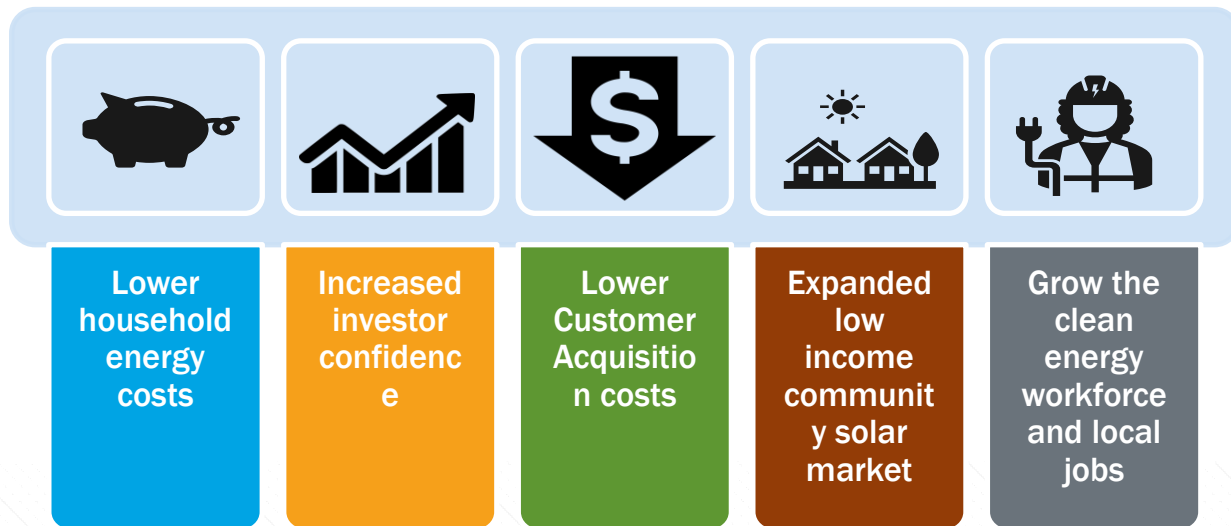




# Customer Engagement

## Low-Income Clean Energy Connector

Developing and piloting a digital tool that will identify and make community solar with verified savings and consumer protections more accessible to households participating in government-run low-income support programs (i.e., the Low-Income Home Energy Assistance Program)





# Low-Income Clean Energy Connector User Types



## State Community Solar Administrator

- Approves SMs and available projects
- Evaluates programs
- Adjusts project prioritization



## State LIHEAP Administrator

- Approves local LIHEAP admins to use Connector
- Adjusts household prioritization



## Subscription Managers

- Upload available projects
- Enrolls households in projects




## Local LIHEAP Administrators

- Educates households about community solar
- Uploads interested households to Connector

# Low Income Clean Energy Connector Software

## Low Income Clean Energy Connector



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AD

The Low Income Clean Energy Connector Tool makes community solar with verified savings and strong consumer protections more accessible to low-income households, specifically Low-Income Home Energy Assistance Program (LIHEAP) recipients.

Currently, a beta version of the tool is being piloted by a few select community solar subscription managers, state community solar administrators, and LIHEAP administrators from our partner states (CO, DC, IL, NJ, NM, and NY). It is not available for public use.

Learn more about this [community solar subscription tool](#) on the U.S. Department of Energy (DOE) website.

The tool is developed and maintained with funding from the Solar Energy Technologies Office within the DOE Office of Energy Efficiency and Renewable Energy.

 MY ACCOUNT

### Contact Us

If you have questions or issues, please [contact us](#).

National Renewable Energy Laboratory

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# Connector Key Project Components

Compensation for  
local LIHEAP  
administrators from  
subscription managers

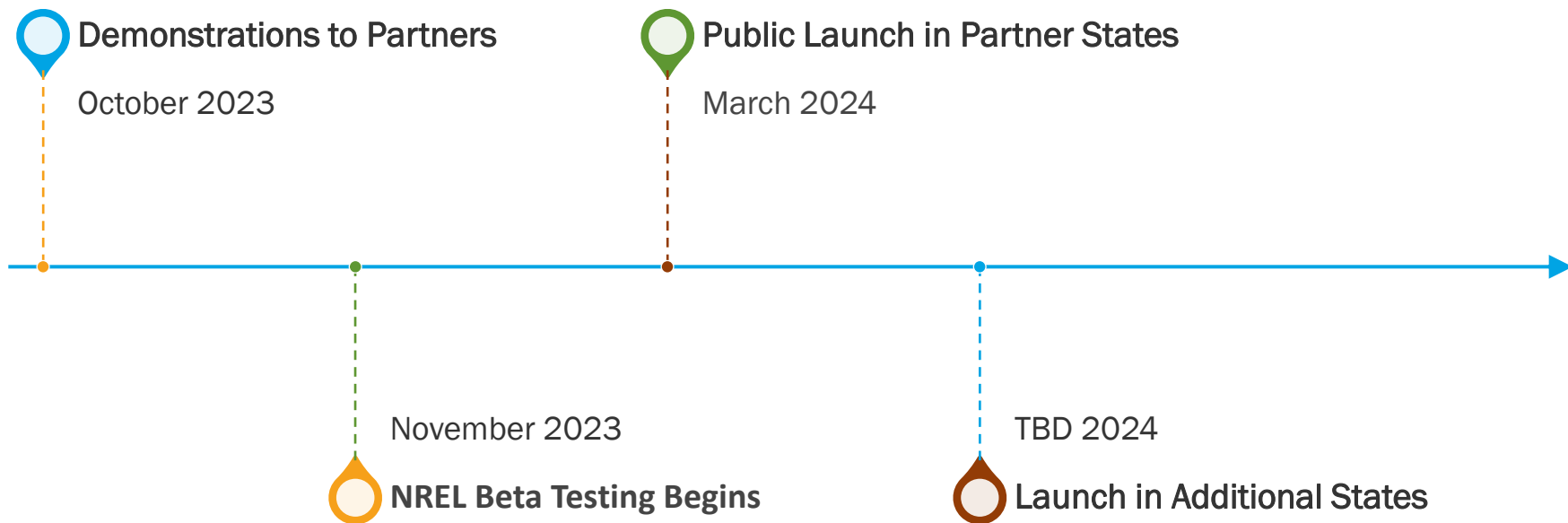
Community solar  
education and support  
materials tailored for  
participating states

State support and  
enforcement of  
consumer protections

Strong partnerships  
between state LIHEAP  
and community solar  
agencies

Guidebook to help  
states onboard to using  
the Connector –  
including all necessary  
policy changes

# Connector Software Development Timeline



# Key NCSP Resources to Share

- **Apply for Technical Assistance :**  
<https://www.energy.gov/communitysolar/technical-expertise-and-capacity-building-0>
- **Learn more about the Community Power Accelerator:**  
<https://communitypower.energy.gov/>
- **Learn more about the States Collaborative:**  
<https://www.energy.gov/communitysolar/states-collaborative-and-engagement>
- **Learn more about the Clean Energy Connector:**  
<https://www.energy.gov/communitysolar/community-solar-subscription-tool>
- **Connect with the National Community Solar Partnership:**
  - Email [community.solar@ee.doe.gov](mailto:community.solar@ee.doe.gov)
  - Join the Partnership:  
<https://ncsp.solarinyourcommunity.org/registrations/groups/39758>

# Contact Information

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