U.S. DEPARTMENT OF ENERGY

Office of ENERGY EFFICIENCY & RENEWABLE ENERGY

Summary: Solar Energy Technologies Office Convenings for Community-Focused Organizations

National Community Solar Partnership's efforts to gather feedback on equitable community solar deployment by communities

April 2022

Disclaimer

Introduction

On September 1 and September 29, 2021, the U.S. Department of Energy Solar Energy Technologies Office (SETO) hosted virtual convenings of community-based and community-focused organizations (CBOs). These organizations shared their perspectives on barriers to deploying community solar and opportunities and needs for increasing equitable access to community solar within the communities they represent. Feedback from these events will be combined with responses from a recent Request for Information (RFI) to inform the future direction of the National Community Solar Partnership (NCSP).

This document summarizes the stakeholder feedback that SETO received from convening participants representing the 75 organizations listed below. Responses have been organized by theme and summarized in this report.

Abeona Green Solutions
Apogee – Climate & Energy Transitions
Appalachian Voices
Asian Pacific Environmental Network (APEN)
Ateneo de Manila University
BlueWave Solar
Carver Community Organization
Coalition for Community Solar Access (CCSA)
Clean Energy States Alliance (CESA)
CleanChoiceEnergy
Cliburn and Associates, LLC
Columbia Water and Light
Communities First
Co-op Power
Dayton Unit NAACP
Deep South Center for Environmental Justice
Design Energy
DiverseAmerica Network
Earth Etch
Earthjustice
EcoWorks
Elevate
Emerald Cities Collaborative
Energy Outreach Colorado
Energy Trust of Oregon
Greater New Orleans Housing Alliance
Green for All
GreenLatinos
GRID Alternatives
Groundswell
HBCU Clean Energy Initiative
Hispanic Federation
Hope Village Revitalization
Inclusive Prosperity Capital
Initiative for Energy Justice
Inner Works Acupuncture
Institute for Local Self-Reliance
Institute for Sustainable Communities
International Center for Appropriate and Sustainable Technology (ICAST)
Keyes & Fox LLP
Local Energy Alliance Program
NAACP, Environmental and Climate Justice Program
NAACP – Niagara Falls
NAACP Louisiana State Conference
National Association for State Community Services Programs
National Energy and Utility Affordability Coalition
New Energy Equity
New Mexico Public Regulation Commission
Nexamp
North Carolina Department of Environmental Quality
Northern Neck Electric Cooperative
Pennsylvania Department of Environmental Protection
People's Solar Energy Fund
Pivot Energy
R.I.V.E.R. Institute/Water Wise Gulf South

San Diego Green New Deal Alliance
Shake Energy Collaborative
Solar Energy International
Solar United Neighbors
Solstice
Sustainable Capital Advisors
Sustainable Systems Research Foundation
Texas Energy Poverty Research Institute
The Cornerstone Collective
The University of Alabama
Trinity River Community Solar Systems
TurningPoint Energy
University of Maine
University of Massachusetts
Vote Solar
WE ACT
Windmill Capital Management, LLC
World Resources Institute
Women of Renewable Industries and Sustainable Energy (WRISE)

Feedback Summary

Table 1. Summary of barriers and solutions to community-based community solar deployment identified by CBO participants

Barriers	Potential Solutions
Organizational Capacity	• Resources, technical assistance, and training on the process of developing community solar • Funding to support capacity building and project design • More flexible application timelines for funding and technical assistance
Policy and Regulation	• Comprehensive resources on state, federal, and utility policies, incentives, and regulations • Training and educational resources for community members on engaging with regulatory bodies and policymakers • Funding to compensate community members and CBOs for participation in rulemaking or program design processes
Societal and Structural Barriers	• Improved community engagement prior to launching community solar projects • Community solar stories that represent the diversity of solar to broaden perspectives on who can be a solar stakeholder subscribers and system owners • Tangible and transparent metrics for Justice40 work, including workforce development, community ownership, and wealth metrics • Improved interagency collaboration (FEMA, HUD, USDA, etc.)
Program Design and Outreach	• Case studies on different program designs, organized by common barriers • Technical assistance and training on program design elements (i.e., subscription models, legal guidance, contract development, outreach methods) • DOE-branded educational materials
Subscription Management and Income Verification	• Guidance on simple, efficient, streamlined, and least intrusive income verification practices • Platform to connect Low-Income Home Energy Assistance Program (LIHEAP) recipients with community solar subscriptions • Training on outreach, engagement, and messaging for subscriber enrollment
Financing and Tax Credits	• Alternative to the Solar Investment Tax Credit (ITC) • Information on alternative financing strategies for community-owned solar • Direct funds to offset predevelopment costs or incentivize community ownership • Research on valuation of community solar benefits (i.e., resilience, demand reduction)
Project Development and Resilience	• Technical assistance on siting and interconnection • Direct funding or incentives for projects that include storage or microgrids • Tools to identify community solar development target sites
Workforce	• Facilitate connections between community solar developers and federal, state, and local job training initiatives

Challenges and Barriers to Community Solar Deployment

Organizational Capacity

Community groups often lack capacity to apply for and manage federal and state funding, including tracking and reporting requirements. Some community-based organizations require support understanding the complex policy and regulatory landscape for community solar and what community solar models are possible in their jurisdiction, especially since programs, definitions, and incentives vary from state to state. CBOs also voiced questions about how to identify trusted community solar developers and where to get support for legal documents required for financing. Additional barriers are lack of pre-development funds to cover costs such as project engineering and design, pro forma development, and audits, as well as limited access to technical assistance for community-led solar projects.

Policy and Regulations

State regulatory processes pose a major policy barrier for CBOs. Public utility commission (PUC) meetings are not always accessible and community members may not recognize the importance of their role in working with PUCs to inform utility programs. Community members may also lack the resources to participate in utility proceedings. Community groups also reported frustration with the lack of coordination and communication between CBOs and state regulators, since CBOs are well-suited to represent communities and serve as trusted messengers in communicating policy options to residents. Additional regulatory and policy-related barriers include lack of state-level enabling legislation for community solar, lack of (or limits to) net metering, regulatory constraints on public power, and policy prioritization of utility-scale projects over distributed, community-owned projects.

Societal and Structural Barriers

Participants also identified structural or societal barriers to community solar deployment, such as the perceived lack of political will to democratize energy resources (i.e., to create social ownership, decentralize energy production, and include more public participation in energy-related policy) and the clean energy economy. CBO participants also perceive that current policymakers have set up governance systems to maintain the status quo rather than empower Black, Indigenous, and People of Color (BIPOC) community leaders, who may not have as many connections to financial and political networks. CBOs identified additional barriers such as racism within the solar industry and employment discrimination against returning citizens seeking green jobs. Siloed government programs that provide overlapping but uncoordinated services result in people not receiving holistic support. Finally, CBOs identified a lack of alignment and difficulty building trust between corporations and community groups as a challenge.

Program Design and Outreach

Organizations that serve low- to moderate-income (LMI) households can face many challenges when designing community solar programs. CBOs cited a lack of consolidated billing and burdensome credit requirements for subscribers as common barriers. Respondents noted that it can be challenging to acquire subscribers from LMI households if the project provides less than 15% cost savings. Most successful projects that serve LMI households provide between 20–50% savings for subscribers, which can have an even greater impact when combined with weatherization and other energy-saving upgrades. In addition, in cases where LMI households' energy bills are included in rent, energy providers must create agreements with landlords to ensure that the benefits of community solar adoption transfer to the tenants. Other barriers are limitations on how much energy a household can subscribe to and restrictions on transferring a subscription to a new address. Short state program design timelines also make it difficult to incorporate community feedback in the final design.

It was observed that, in some places, community solar is a "premium product" intended to serve higher income customers, while in others it is designed to serve low-income customers. Therefore, CBOs feel that messaging around community solar does not clearly communicate the problems it can solve.

LMI households may distrust energy sector salespeople due to predatory third-party vendors and lack of familiarity with community solar technologies and their benefits. Addressing and overcoming consumer skepticism of community solar is important to ensure that LMI households receive equitable benefits from community solar development, and education on how community solar systems work and their benefits can help build trust and increase uptake.

One program design suggestion was to develop more holistic education and outreach programs that combine community solar with workforce development (e.g., job training or career counseling) and energy efficiency (weatherization or appliance upgrades). Another suggestion for increasing community solar affordability is to use LIHEAP funds to offset subscription fees by treating solar developers as energy vendors.

Subscription Management and Income Verification

Many barriers in subscription management for low-income households relate to the burden of proof for income verification. Participants noted that the burden of proof for income verification is often on the individual household and can include onerous paperwork, making it harder for customers in LMI households to sign up for community solar. Ideally, the administrative burden for LMI households and higher income households should be comparable for signing up for community solar subscriptions. CBOs also highlighted that many LMI households are renters and may move more frequently, which poses a challenge to keeping customers on a community solar subscription in the long term. Subscription fees may also prove a barrier for LMI households.

Financing and Tax Credits

Lack of access to financing for community solar projects is a major barrier, particularly for community-owned projects. Financing-related barriers include the lack of standardized approaches to project finance, the need for better financing options for solar and storage, the impact of financial requirements on financing timelines, the perceived risk of community-owned or LMI-serving projects, and misconceptions about shifting the costs of community solar to non-subscribers ("cost shifting") Participating CBOs also identified project financing with reimbursement models or match requirements as a barrier, as CBOs do not always have access to adequate capital to cover up-front costs. Participants said more capital needs to flow to historically excluded and under-resourced communities, noting there are successful strategies for structuring capital to reduce real or perceived risk of projects that serve LMI households.

Participants also identified inability of community organizations to monetize the Investment Tax Credit as another major barrier, and they indicated that instead direct payments and alternative financing mechanisms are needed. Many organizations are not able to access federal funds (see "Organizational Capacity") or do not have the additional funds necessary to comply with federal matching requirements.

Project Development and Resilience

Many barriers to developing community solar projects revolve around partnering and/or working with utilities—particularly large investor-owned utilities—such as getting project approval, accessing data, interconnection delays, lack of information on available hosting capacity, and caps on how much solar is allowed on the grid. High interconnection cost was also identified as a barrier. Utilities can push community-owned projects to the end of interconnection queues that are filled with larger and better-resourced projects. When community ownership is not adequately valued within programs (such as through tariffs, incentives, and mandates), these projects often cannot compete with incumbent or larger-scale projects. Competing land use priorities, such as preserving land for agriculture in land-constrained locations, such as Puerto Rico, is another barrier. Some communities, including those that have historically experienced a disproportionate amount of environmental harm from energy generation, may be skeptical or resistant to siting clean energy in their community. In addition, a participant was unsure if community solar could be deployed quickly enough to make up for cost differences as communities embrace electrification.

Participants highlighted the role that community solar can play in creating a more resilient energy system and its benefits for community health and safety. Community solar projects that incorporate resilience elements often have more challenging economics due to added costs from battery storage, transfer switches, and microgrid capacity. Participants noted the need to adequately value resilience in these projects, especially in regulatory proceedings, to encourage projects that produce multiple, long-term community benefits.

Workforce

Participants observed a need to consider workforce development opportunities throughout all aspects of the solar industry, and especially community solar, to make sure communities are centered in and benefit from the deployment of clean energy. This includes creating training and a long-term career opportunities when focused on community deployment. There was also a suggestion to support wrap-around needs of the trainees to allow for both entry-level success and opportunities for upward mobility.

Opportunities and Needs for Community Solar

Technical Assistance and Training

CBOs developing community-led and community-owned projects need technical assistance (TA) in many areas, including siting and de-risking projects, making small projects profitable, and creating new models for community solar. Other identified TA topics include legal support for project contract development or business models, streamlining income verification processes, navigating available incentives, developing subscription models, guidance on feasibility studies, and training for states on how best to support CBOs. Participants noted that DOE should capture TA outcomes and share these with other CBOs.

Many participants suggested that DOE make staff available by phone or email to help community groups access resources. Suggestions included placing "outreach officers" or liaisons in DOE, NCSP, National Association of State Energy Officials (NASEO) or Community Action Programs dedicated to community solar support, especially in states with enabling community solar legislation. CBOs also suggested that DOE have staff available to support training and education for outreach to customers in LMI households. CBOs noted that community members must be engaged before a community solar project is launched, including engaging with PUCs and other regulatory bodies. Developers conducting door-to-door enrollment, especially those trying to capture LMI incentives, need to be trained to work with communities during the project development stage rather than only engaging households once a project is developed.

Funding & Policy

Participants suggested that DOE simplify applications for federal funding, especially for organizations with small staffs and budgets, and make funding more flexible to accommodate shifts or changes in community needs. DOE could incentivize the development of community-owned facilities with deployment funds, prizes, and carve-outs. DOE could also provide direct funding to offset predevelopment and other costs, such as the cost of insurance or battery storage systems. Other direct funding needs include additional capacity building costs and compensation

for CBOs or community members that provide feedback to PUCs or government offices. Participants noted that there needs to be an effort to value community members' time and expertise, either monetarily or through other means, such as stipends for transportation or childcare support.

Participants also requested more information and education on financing for community-owned projects. This could include alternative financing options such as crowdfunding or ways to share financial benefits with the community.

Policy changes can also support more community-owned development. CBOs recommended a federal carveout for 40% of all community solar projects to be community-owned solar. Presenting the benefits of community solar in utilities' integrated resource plans would increase the likelihood of supportive policy at the state level.

Research, Analysis, Publications, Data, and Tools

CBO participants indicated that the most valuable types of resources for DOE to provide are case studies and toolkits or workbooks. Interactive webpages were slightly more valuable to participants than research papers, webinars, and tip sheets.

Participants requested these types of resources in the following subject areas:

- Unbiased educational resources on what community solar is and how it works under different program structures, including resources for policymakers
- Guidelines and best practices for how to implement community solar projects from start to finish, including a checklist with links to implementation resources
- Resources that adapt DOE and national lab research so that it is more accessible for community use
- A catalog of community solar case studies and associated presentations organized by common barriers, including community-owned projects and projects that have been successful in states without incentives or enabling legislation
- Community solar stories that represent the diversity of community solar subscribers and system owners
- Studies that help communities identify sites with high solar energy generation potential
- Information on interconnection requirements and where to site projects in order to balance demand with ease of grid interconnection
- Aggregated information to help communities and developers understand all of the policies, regulations, and operational rules across states and utilities

- A clearinghouse of resources that explain community ownership to help community members easily understand the benefits and risks of community-owned projects (e.g., infographics)
- Guidance on simple, efficient, least intrusive income verification practices that communities and advocates could provide to local authorities
- Research on cost-shift impacts for different program design models
- Strategies and frameworks for valuation of specific benefits (ownership, savings, workforce development, etc.) within programs
- Translated documents in multiple languages, particularly Spanish

Participants requested the following types of data and tools:

- An online platform that helps community members find and subscribe to projects
- Data aggregation or a tool to help CBOs communicate project risks to their partners in order to increase their comfort level in approving projects
- A platform that connects LIHEAP recipients with community solar subscriptions
- Data that shows whether community solar is financially benefitting customers
- Data on the cost of electrification for a household and how electrification could impact energy burden for different customers
- Analysis of how community solar that serves LMI households can address equity and access issues and reduce high energy burden
- A map of rooftop community solar development target sites (and how to remove barriers to siting on those rooftops)
- An interactive tool to quantify and articulate community benefits of community solar
- Tangible metrics for Justice40 work, including workforce development, community ownership, and wealth metrics

Engagement

Participants offered DOE many suggestions on engaging with other federal programs and organizations. DOE could collaborate with public housing authorities and the U.S. Department of Housing and Urban Development (HUD); conduct outreach to weatherization assistance program (WAP) providers; consider categorical eligibility for solar assistance based on qualifying for other social programs (Supplemental Nutrition Assistance Program (SNAP), LIHEAP, WAP); and create better relationships with DOE Better Buildings contractor networks

to realize the combined potential of energy efficiency and community solar to lower energy bills. Participants also suggested that DOE partner with Federal Energy Management Agency (FEMA) funding awardees in support of resilience goals, with the National Community Action Partnership (NCAP) to connect with agencies on approaches to income verification for programs, and with the Urban Sustainability Director's Network (USDN) for engagement with local government officials.

Participants suggested that DOE build trust with communities by communicating more through partnerships with intermediaries who already have well-established relationships with communities. Participants encouraged DOE to engage with states and their partners to assist with outreach to CBOs. DOE can also strategically convene developers, CBOs, and environmental organizations to create solution pathways and a line of sight through organizations from the local all the way to the federal level. DOE can leverage networks of community leaders to connect them with more people involved in community solar and promote best practices for engaging community members early in the design process. To better address community-based challenges, DOE can work with CBOs to identify gaps in expertise, find leaders who work in those gaps, and see if they can bring in others. DOE and its network can share information and resources about subscribing to community solar through existing community hubs and organizations, such as churches or community centers.

Some participants indicated that it would be valuable to provide education about communities to developers, including providing more information about community solar markets and community members' unique needs.

One suggestion for workforce development was for DOE to recruit and train college-level interns in every state and territory to become active community liaisons who could explain the benefits of community solar to historically excluded and under-resourced communities directly. These interns could engage with solar developers to gain experience and knowledge to help them develop their careers and grow beyond blue collar opportunities. Another suggestion was to connect community solar initiatives with federal, state, and local job training initiatives.

Thank You

SETO thanks all of the CBO representatives who participated in this convening and welcomes future collaboration. SETO will use these observations and suggestions to inform NCSP's future programming and help the program reach its goal of expanding equitable access to community solar.

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For more information, visit:
energy.gov/communitysolar

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