Keys Elements to Consider for a Low- and Moderate-Income Community Solar Project — February 2022

Inclusive Shared Solar Initiative

*This checklist provides guidance for **State Energy Offices** and State Agencies Operating the Low-Income Home Energy Assistance Program (referred to here as **LIHEAP Agencies**) who are interested in supporting community solar programs focused on serving low- and moderate-income communities. These programs can help disadvantaged communities save on energy bills with low-cost resources, while providing a large customer base for new renewable energy developments. The following elements cover key considerations, roles for states agencies in community solar development, stakeholders to engage, and case studies from existing projects.*

STAGE 1 - Steps for Planning a Community Solar Program:

Assess the Options for Community Solar: Rules and regulations on solar development, providing energy services, and grid interconnection vary by state and service territory. Before starting conversations with key stakeholders, gain a firm understanding of what project types are allowed under your local rules.

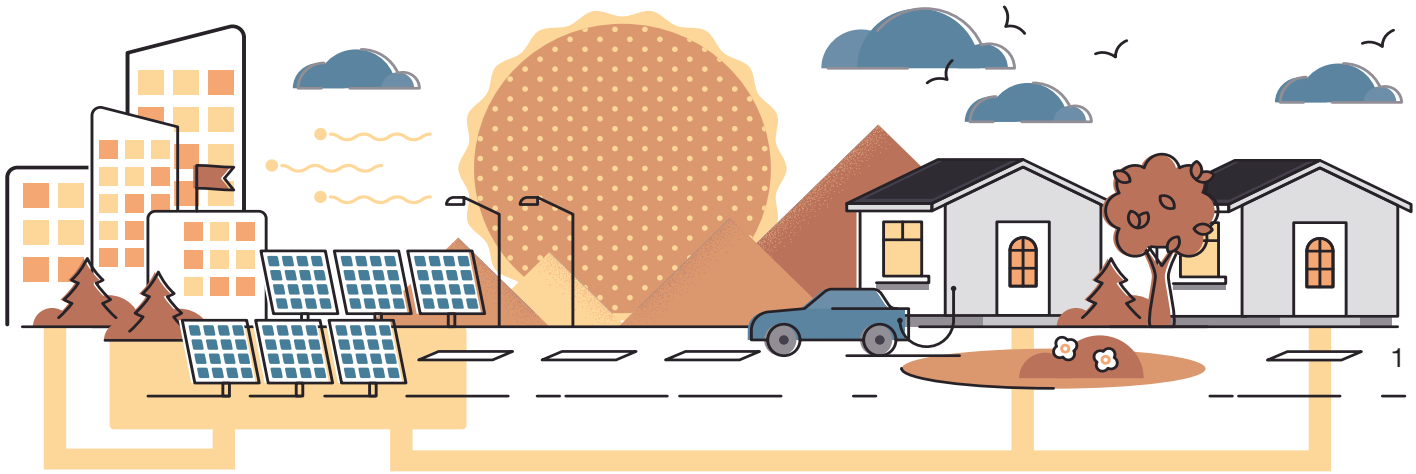
Engage the Local Community: Program success depends on meaningful and consistent engagement of people with low and moderate incomes throughout the project, ensuring that their needs are addressed when crafting and implementing plans. Program elements such as establishing community energy goals, site locations, and customer benefit structures, can be brought to the community for their insights. Taking their input early in the process and seriously is an important step inbuilding trust and a long-term relationship for the duration of the project.

*For more guidance, please see "Designing Equity-Focused Stakeholder Engagement to Inform State Energy Offices Programs and Policy", featuring the work of the **Minnesota Department of Commerce's Energy Division**.*

Coordinate with the Governor and State Legislature: State Energy Offices and LIHEAP Agencies should communicate with state decision-makers on how community solar can meet community needs and advance policy goals of the state. They can also provide recommendations on program models and how to best develop community solar in the state.

*In 2013, the **Massachusetts Department of Energy Resources (DOER)** developed a Review and Recommendations document for models to expand community solar in the state. In 2016, the legislature funded the SMART Program to expand community solar with incentives for low- and moderate-income communities.*

*State LIHEAP agencies are required to solicit public feedback on their annual plans. These efforts can be used to engage the community and stakeholders in the development of new programs. The **Maryland Department of Human Services** held two virtual public hearings on their 2022 state plan, and in 2019 presented on their process at a LIHEAP training conference.*



Work for Regulatory Approval and Engage Non-Regulated Service Providers:

- Determine Ownership Structures: Most state agencies lack the authorization to directly invest in solar projects and then serve customers. However, by providing funds, facilitation, and other types of support to a project, agencies may have influence over its design, implementation, and target audience. Determine the appropriate owners and operators of this development, keeping in mind that developments have a lifespan of 20-30 years and that additional support, funding, or risk mitigation may be needed for developers to effectively reach and engage underserved and underrepresented populations.

  14 States have passed legislation requiring community solar developments to incorporate people with low and moderate incomes.

  Several ownership models may be appropriate for community solar. Massachusetts' Community Solar Guidelines mention public ownership, private ownership, public lease ownership models, and participant-owned models.

- Public Utility Commission Approval: Electric utilities or other providers need the authority to serve customers through community solar installations. This may require new billing classes or other authorizations to allow community solar development.

  In 2013 the District of Columbia passed the Community Renewables Energy Act, requiring their Public Service Commission to revise regulations and net metering rules to enable community solar development and allow participation in the District's renewable portfolio standards.

- Work with Unregulated Electric Service Providers: Engage with electric cooperatives and municipal utilities to ensure that all of their customers have the option to participate in community solar.

  *The **North Carolina State Energy Office** in the Department of Environmental Quality works with electric cooperatives and municipal systems to help launch community solar programs, and offers financial incentives along with Weatherization Assistance Program funds to support these efforts.*

  *LIHEAP offices have existing relationships with all or most electrical utilities in their states for the purposes of serving low-income customers. The **Vermont Office of Fuel & Utility Assistance** has established terms and conditions for all vendors that receive LIHEAP funds. The **Missouri Department of Social Services** has a web portal for the energy vendors in the state.*

Establish Targets and Goals: Many factors can lead to states pursuing community solar: climate change, pollution reduction, economic development, and support for people with low and moderate incomes. Defining goals or targets for community solar can help measure success. Completing this step after community engagement will ensure that their needs and goals for energy development are incorporated into planning.

States have developed several planning targets to require or encourage people with low and moderate incomes to participate in community solar developments:

- *Percent of installations set aside: CA, NJ, MD, VA, CT, CO, OR, and ME*
- *The District of Columbia set a goal of 100,000k low- and moderate-income households to be served by community solar within the decade.*

STAGE 2 – Key Considerations for Preparing for Community Solar:

Financing: Most states do not own community solar installations, but rather support solar developers selected through a competitive process. Specifications about project finance and assurances of access to capital are generally included in applications, so only projects with sufficient financial resources are selected. Some states have additional funds to help compensate solar developers and bring down costs for communities.

Illinois's Solar For All Program was supported through $50 million in state funds through Renewable Energy Credits allocated to community solar projects. To support projects, the Illinois Power Authority held an RFP, auctioning off 15-year contracts to deliver RECs from community solar projects, providing an additional, reliable income stream.

Site Analysis and Grid Connectivity: Many jurisdictions with community solar targets have determined suitable host sites, taking into account grid connectivity and the locational power needs of the grid, and reliability concerns.

*The **Rhode Island Office of Energy Resources** (OER) conducted site analyses to determine suitable locations for community solar systems which provide strong value to the grid and make sense for local development.*

Customer Identification: State Energy Offices could facilitate aggregation of a large number of customers with low and moderate incomes to act as a key anchor tenant in a community solar project. Coordination with the state **Low-Income Home Energy Assistance Program (LIHEAP) program** is a natural fit, as they have data on income and program eligibility, and already provide energy assistance to potential subscriber households.

*The Solar4All Program, managed by the **New York State Energy Research & Development Authority** (NYSERDA), the State Energy Office, used enrollment data from the State's LIHEAP program in order to access hundreds of thousands of LMI customers to serve as potential anchor tenants for new construction. Click here for more details.*

Sign-up Process: Program registration (or cancellation) must be done in a manner that does not create undue burdens on participants.

***NYSERDA's** Solar4All program enrolls income-eligible National Grid customers, with no cancellation fees, minimum time commitments, and guarantees bill savings.*

Connecticut's ***Department of Energy and Environmental Protection*** *established Consumer Protection Rules to define program rules, terms of service, and consumer rights for participants in their Shared Community Energy Facility pilot program.*

Consumer Savings: States have worked to ensure that community solar participants benefit from these programs through cost savings.

New York offers a $5-15 monthly bill credit to customers with low and moderate incomes participating in Solar4All. This credit helps ensure these communities receive financial savings from participation.

Massachusetts offers a per kWh price adder for community solar systems that serve primarily LMI customers.

Hawaii offers a pay-as-you-go ownership model to help customers with low and moderate incomes buy into new community solar developments.

Existing LIHEAP Benefits: For many LIHEAP grantees, the size of a customer's LIHEAP benefit is determined in part by the customer's energy cost history. A LIHEAP customer who sees a reduction in their utility bill due to participation in a solar program may also see a reduction in their LIHEAP benefits in subsequent years. Revising the benefit calculation process can ensure customers participating in solar do not receive reductions in their LIHEAP benefit that result in higher overall payments for home energy.

Minnesota has revised their LIHEAP benefit calculation *to use the customer's energy cost before a solar bill credit is applied.*

Additional Project Elements: To add flexibility to energy produced from community solar projects, states have considered including smart inverters or battery storage as part of new developments.

Minnesota is encouraging developers to consider smart inverters and/or storage technology on solar developments. This helps increase the grid value of these solar resources.

DC's Department of Energy & Environment *conducted a Resilience and Solar Assessment examining ways that new solar developments can support the city's goals for energy reliability.*

Foster Positive Local Jobs and Workforce Impacts: Buy local targets, or requirements to support local jobs can help ensure the target community captures as much value from these investments as possible.

California requires that new developments serving disadvantaged communities be located within 5 miles of the community, to help retain the economic benefits of construction and operations. Organizations like Grid Alternatives train local workers with the skills to start careers in the energy sector.

STAGE 3 – Steps for Supporting Operations

Monitor Participation: Based on the key program goals established in Stage 1, compare the program rollout to policy objectives.

- *Is the program achieving the objectives/goals established for it?*
- *Where can the program be improved? How can the State Energy Office or LIHEAP Office overcome challenges to recruitment?*

Maintain Feedback Loops: Regular communication with key stakeholders and state decisionmakers is vital to ongoing success. This will refine and enhance programs, and ensure that successes from the program are understood and acknowledged.

After operating the SMART program for one year, ***Massachusetts DOER*** *conducted a program review. After determining that demand was strong, but low-income communities were not participating, the program was doubled in size to allow more community solar, and the changed eligibility criteria to support Environmental Justice communities.*

Develop Tools for Accountability and Tracking: Create databases and maps tracking key aspects of community solar developments (ownership, LMI participation, location, workforce impacts, performance). Overlay projects with information about the communities in which they are located (demographics, environmental justice indicators, un/underemployment, etc.) to track impacts and progress.