



COMMUNITY SOLAR BASICS

Critical Elements
Checklist • Resources

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COMMUNITY SOLAR BASICS: CRITICAL ELEMENTS, CHECKLIST AND RESOURCES

Community solar programs, also known as shared solar programs, enable multiple customers to participate in and share the economic benefits of a solar energy system. Certain enabling policies and program design elements are critical to the success of any community solar program, particularly for state-led or community-led programs enabled by legislation and rules. The following table offers a brief overview of these critical elements, an



accompanying checklist to help guide decision-makers and program designers as they develop programs, and useful relevant additional resources for reference. The terminology section (page 5) provides clarification on certain key terms. For more information on community solar programs, including utility-led programs, please refer to the **Solar Market Pathways Toolkit: Catalyzing Community Solar**.

Critical Elements	Checklist	Learn More
 Inclusive Stakeholder Processes <p>Transparent and inclusive stakeholder processes are extremely valuable for identifying shared values for program design, as well as deciding the objectives of the program at the outset. Clearly articulating what you are trying to accomplish, who you are serving, and what needs you are filling with the program can help facilitate consensus and ensure a more streamlined decision-making process.</p>	<ul style="list-style-type: none"><input type="checkbox"/> Do you have an inclusive stakeholder process in place to solicit input on program design?<input type="checkbox"/> Do you have a neutral facilitator to lead the stakeholder process and ensure input is incorporated and integrated in a fair and transparent manner?<input type="checkbox"/> Is your stakeholder process time-limited, with clear steps outlined up front?<input type="checkbox"/> Do you have a process for achieving consensus and identifying any areas of disagreement?	<p>The Cook County Department of Environmental Quality (Illinois) and partners led a robust stakeholder engagement process to educate and garner early buy-in from a diverse group of local stakeholders on community solar.</p>
 Program Goals and Best Practice Design Criteria <p>How community solar programs are designed determines whether they achieve their intended goals and are deemed successful. A primary goal of any community solar program should be expanding solar access to more people and ensuring they benefit from their participation. In addition, programs should establish measures to track and report on program progress, relative to goals, and opportunities for periodic review and evaluation, should adjustments be needed.</p>	<ul style="list-style-type: none"><input type="checkbox"/> Have the program goals and intended participants been clearly articulated?<input type="checkbox"/> Are the program details clear and transparent for participants, developers, utilities and other involved stakeholders?<input type="checkbox"/> Does the program help grow the solar market and improve customer access?<input type="checkbox"/> Does the program clearly identify means to measure and track program goals, along with clear guidelines for reporting and evaluation?	<p>IREC's Model Rules for Shared Renewable Energy Programs discuss the program design elements and provide a template for program rules.</p> <p>IREC's Guiding Principles for Shared Renewable Energy Programs provide an overview of key program principles.</p> <p>The Coalition for Community Solar Access Policy Decision Matrix provides a decision matrix for designing community solar programs.</p> <p>IREC's National Shared Renewables Scorecard evaluates shared renewables programs across the country, offering insights into the strengths and weaknesses of various programs relative to a set of core design criteria.</p>



Critical Elements	Checklist	Learn More
 Bill Credit Allocation Mechanism <p>Allowing customers to receive the benefits of their participation in a community solar facility via electricity bill credits is critical to the success of the vast majority of community solar programs. Across the board, for all bill credit allocation mechanisms, fair bill credit valuation is a key element.</p> <p>Virtual net metering (VNM) is one common bill credit allocation mechanism, but some programs have taken alternative approaches that are not connected to net metering. It is important to note that virtual net metering, and other related terms, are not standardized or used consistently in the United States. See Terminology for more details.</p>	<ul style="list-style-type: none"><input type="checkbox"/> Does your program allocate benefits via bill credits?<input type="checkbox"/> Does the bill credit valuation reflect the full value of the solar generation to the grid?<input type="checkbox"/> Is the valuation clearly articulated in statute, rules, and/or tariff?<input type="checkbox"/> Is unsubscribed generation clearly treated and valued at least at an avoided cost rate?	<p>IREC's Model Rules discuss the various bill credit allocation mechanisms and the differences between and among them.</p> <p>IREC's Shared Renewable Energy State Policy Catalog provides details on how bill credit allocation is addressed in the different state programs (among other program design details).</p>
 Interconnection Procedures <p>These are the "rules of the road" for community solar facilities or any other distributed generation connecting to the grid. If interconnection procedures are not designed to process applications efficiently, they can serve as a major bottleneck for new community solar programs.</p>	<ul style="list-style-type: none"><input type="checkbox"/> Has your state implemented best practice interconnection procedures (that explicitly address larger, community-scale projects)?	<p>Freeing the Grid provides annual grades on states' interconnection procedures and can help to determine if updates are necessary to enable efficient interconnections.</p> <p>IREC's Model Interconnection Procedures provide best practices and model language for adoption by states and utilities.</p> <p>IREC's Priority Considerations for State Interconnection Standards provides a quick reference guide for the key recommendations and resources on interconnection.</p>
 Financing Mechanisms <p>Enabling a wide array of financing mechanisms, such as third-party financing, tax incentives, and grants, can help to create a robust community solar market, especially in nascent solar states.</p> <p>Financing mechanisms are particularly important to promoting low- and moderate-income customer participation.</p>	<ul style="list-style-type: none"><input type="checkbox"/> Does the community solar program allow for third-party facility ownership (and financing) options?<input type="checkbox"/> Does the program explicitly address financial barriers faced by low- to moderate-income participants?<input type="checkbox"/> Are other federal, state, or local incentives or financing mechanisms available to support community solar program participation?	<p>IREC's Shared Renewable Energy for Low- to Moderate-Income Consumers: Policy Guidelines and Model Provisions provides information on the various financing mechanisms to support community solar, and in particular those mechanisms that might be needed to support low- to moderate-income customer participation (e.g., incentives, on-bill financing, alternative credit criteria, loan-loss reserve, etc.).</p> <p>The Low Income Solar Policy Guide from GRID Alternatives, Vote Solar, and Center for Social Inclusion provides information on various policies and programs that are creating access to solar technology and jobs nationwide.</p>



Critical Elements	Checklist	Learn More
 Education and Outreach <p>It is important that customers understand the community solar value proposition and other program elements. Robust education and outreach typically involves a collaborative effort between regulators, utilities, third-party providers, community organizations, and program administrators.</p>	<ul style="list-style-type: none"><input type="checkbox"/> Does the program entail a targeted and meaningful consumer education and outreach component?<input type="checkbox"/> Are there streamlined ways for interested community solar project developers to connect with interested customers and/or communities?<input type="checkbox"/> Does the program have any specific requirements regarding low- to moderate-income customer marketing, education and outreach?	<p>The Center for Sustainable Energy created a web resource, in collaboration with Energy Sage, to streamline the process of installing on-site community solar for multifamily residential housing in California.</p> <p>The City University of New York created the Shared Solar NYC Gateway to connect interested customers with viable host sites offered by vetted developers.</p>
 Consumer Protection <p>Appropriate consumer protections are important for community solar programs. Existing laws protect consumers in many ways, but there can be gaps, for example, with respect to specific community solar-related disclosure requirements.</p>	<ul style="list-style-type: none"><input type="checkbox"/> Are there identified gaps in the current laws related to consumer protection that should be addressed through program rules?<input type="checkbox"/> Does the program provide clear and transparent information and resources for consumers such that they understand what they are getting through their participation?<input type="checkbox"/> Are marketing and educational materials adapted for diverse consumers and available through different outlets?	<p>IREC's Consumer Protection Trio offers a good starting point on consumer protection issues.</p> <p>The community solar industry has also developed community solar-specific consumer protection guidance.</p> <p>A report from the Clean Energy States Alliance outlines some of the core issues and guidance for states on Consumer Protection for Community Solar.</p>





TERMINOLOGY

NET METERING

A billing arrangement that allows a customer to offset on-site electricity use with a distributed generation system located on the property and receive credit for any excess electricity supplied to the grid (i.e., one customer, one meter).

AGGREGATE NET METERING OR METER AGGREGATION

An extension of net metering rules, aggregate net metering permits a single customer that has several buildings (and thus, multiple electricity meters) to offset the electricity of their multiple facilities with electricity generated from a single renewable energy system connected to one of the participant's meters (i.e., one customer, multiple meters). Meter aggregation can be accomplished on a participant's contiguous properties or virtually on separate properties, if rules allow.

VIRTUAL NET METERING

Virtual net metering (VNM) allows multiple customers to receive electricity bill credits from a net-metered facility, which may be on-site or off-site (i.e., multiple customers, multiple meters). Because VNM is nested within a state's net metering paradigm, those bill credits are typically valued at a participant's retail rate or at least incorporate components of that rate. VNM can—but does not always—serve as the enabling tariff for a state's shared solar program. For example, in **Massachusetts**, multiple, dispersed customers may share the bill credits generated by a remotely located facility. However, some states may limit VNM eligibility such that it more closely resembles traditional, on-site net metering. In **California**, VNM is only available to multitenant customers sharing an on-site facility.

SHARED SOLAR

Shared solar and other shared renewable energy programs enable multiple customers to share the economic benefits of a renewable energy system that is typically, though not always, off-site. Participants purchase an interest in a common system—sometimes referred to as a subscription—and receive the proportionate value for the electricity generated via electricity bill credits. As mentioned above, VNM may serve to enable this bill credit valuation and allocation. For example, **Maryland** recently launched a shared solar pilot program that relies on VNM. However, a shared solar program may rely on a separate bill credit valuation and allocation mechanism that does not have a direct tie to the state's net metering rules. The **Minnesota** Community Solar Gardens program established a bill crediting framework distinct from net metering, with credits initially valued at the “applicable retail rate,” and now valued based on the state's value-of-solar methodology. IREC's **Guiding Principles** and **Model Rules for Shared Renewable Energy Programs** provide additional detail regarding shared solar and other shared renewables programs.

COMMUNITY SOLAR

In many cases, community solar and shared solar are used interchangeably, or even combined into one term (“community shared solar”). However, in other instances, community solar can encompass a wider array of program models beyond the shared solar model described above. Community solar can also be used to refer to renewable energy project investments, in which individuals invest in one or more community-scale renewable energy projects, either as a donation or with the expectation of earning a return. Unlike the shared solar model, the funds invested and any resulting earnings are unrelated to participants' energy bills. In addition, community solar sometimes also covers green tariffs and group purchasing programs, both of which may involve community installations or benefits, but are distinct from shared solar. IREC's Model Rules describe these other program models in more detail.



LEARN MORE:

- ★ U.S. Department of Energy SunShot – Solar in Your Community Challenge
- ★ U.S. Department of Energy SunShot – Solar Market Pathways Community Solar Toolkit
- ★ IREC's Model Rules for Shared Renewable Energy Programs
- ★ IREC's National Shared Renewables Scorecard
- ★ IREC's State Shared Renewable Energy Program Catalog
- ★ Smart Electric Power Association's Community Solar Program Design Models
- ★ Community Solar Value Project
- ★ Shared Renewable Energy for Low- to Moderate-Income Customers: Policy Guidelines and Model Provisions

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