

Department of Community Services and Development

Low-Income Weatherization Program

Community Solar Pilot Program Design Outline

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Contents

1. Introduction	3
2. Community Solar	3
3. Program Background	4
4. Solar Programs in California	5
4.1 CSD Solar Programs	5
4.2 Other Programs	5
5. Community Solar Pilot Goals	6
6. Community Solar Pilot Awards	6
6.1 Timeline	7
7. Eligibility for Prime Proposer and Team Capabilities	7
7.1 Prime Proposer/Awardee Eligibility and Contract Structure	7
7.2 Team Capabilities and Support	8
8. Pilot Project Design Considerations	8
8.1 Location of Facility	8
8.2 Participant Eligibility	9
8.3 GHG Emission Reduction	9
8.4 Regulatory and Legal Environment	9
8.5 Siting Considerations	10
8.6 Green-e Energy Certification	10
8.7 Stand-alone and Carve-out Projects	11
8.8 Consistency with Local and Regional Plans	11
8.9 Use of Funds	11
8.10 Leveraging of Funds	11
8.11 Solar Asset Ownership	12
8.12 Solar, Storage, and Microgrids	12
8.13 Performance Bond Requirement	12
8.14 Utility Resource Procurement and Grid Integration Rules and Requirements	12
9. Proposal Requirements	12
9.1 Work Plan and Timeline	12
9.2 Customer Enrollment and Service Plan	13
9.3 Community Engagement Plan	14
9.4 Project Burdens and Co-Benefits Statement	15
9.5 Project Budget, Operating Budget (Income and Expenses), and Budget Narrative	16
9.6 GHG Emission Reductions, Air Pollutant Emission Co-benefits and Other Key Variables	17

10. Scoring Considerations.....18

11. Awardee Considerations18

 11.1 Contracts and Reimbursements18

 11.2 Technical Assistance18

 11.3 Reporting Requirements19

 11.4 Auditing and Monitoring19

 11.5 Pilot Evaluation.....20

Appendix I: Glossary of Terms.....21

DEPARTMENT OF COMMUNITY SERVICES AND DEVELOPMENT

COMMUNITY SOLAR PILOT PROGRAM DESIGN OUTLINE

1. Introduction

This Program Design Outline issued by the Department of Community Services and Development (CSD) for the Community Solar Pilot (“Pilot”) serves as a discussion document for the framework of the program. Pilot projects will be funded with \$5 million of CSD’s California Climate Investments appropriation. The intent is to develop community solar models that can be replicated by organizations or consortiums seeking to bring a successful program to low-income households. The Pilot, part of CSD’s Low-Income Weatherization Program (LIWP), is intended to reduce greenhouse gas (GHG) emissions, reduce long-term energy costs for low-income households and cost-effectively bring the benefits of solar photovoltaics (PV) to these households.

CSD will hold a public webinar to discuss this document and proposal requirements, and invite online questions from participants, on May 31, 2018. Written feedback is also invited in response to this discussion document and may be submitted through June 6, 2018 to: LIWP@csd.ca.gov

Subsequent Draft Program Guidelines will be released to outline the final program design and provisions applying to awardees to be selected through a competitive procurement process. A public comment period and hearing will provide additional opportunities for input prior to the procurement later this year.

2. Community Solar

Not all low-income households can participate in existing solar PV programs that typically focus on placing solar systems on homes and multifamily dwellings. Barriers include inadequate roof space, roof condition, or shading; living in a multifamily building where the owner chooses not to install solar PV; and programs restricting eligibility to home owners. Community solar offers the potential to increase access to clean solar power through sharing the production output of an off-site solar system, typically large enough to serve multiple households and other electricity users.

For illustrative purposes, the following description of legal or business relationships under one possible model of community solar is adapted from a Columbia University paper:¹

Community solar allows a single solar system or network of systems to serve multiple, dispersed households. The site for a solar installation is owned or leased by an entity, which can be a utility, solar developer, residential or commercial landlord, municipality, community or non-profit organization. This entity brings together a group of subscribers and hires a contractor to install the solar panels.

The actual solar panels can be located on subscribers’ roofs, on a public or commercial building, or on a remote ground-mounted site. Community solar systems and subscriptions

¹ A. Benrey, E Kahn, M. Kim, D. Maravilla, J. Merino Carela, P. Vaidya. *Solar State of Mind: Expanding Community Distributed Generation in New York State*, pp. 26-27. Columbia University, School of International and Public Affairs, May 2017.

are designed to generate either a fraction of or the entire electricity load required by the subscribers. Ground mounted systems are typically larger, and attract subscribers from anywhere within a larger radius in the community or utility's service territory.

The basic framework of a community solar project may include the following:

- The **awardee** is the eligible contracting entity that takes responsibility for executing and managing the project
- A **community solar provider** may be responsible for managing memberships and interfacing with the utility, but may also own or operate the project (e.g. project developers, energy service companies, businesses and non-profits, as well as partnerships among these entities)
- The **local utility** is involved in interconnection to the grid and may play a role in subscriptions and billing
- The project may be organized around an **anchor**, typically the system owner, eligible property owner, or largest off-taker
- Any eligible utility customer may be a **subscriber** to a community solar project
- The terms of membership, including payment structure and provisions for existing subscribers, are set by an **agreement** between subscribers and the community solar provider

CSD recognizes these terms, entities and arrangements may not be applicable to all project models submitted in response to the future procurement and welcomes innovative proposals that meet the goals of the pilot program with differing arrangements.

3. Program Background

California Climate Investments is a statewide program that puts billions of Cap-and-Trade dollars from the Greenhouse Gas Reduction Fund (GGRF) to work reducing GHG emissions, strengthening the economy, and improving public health and the environment—particularly in disadvantaged communities. The Cap-and-Trade Program also creates a financial incentive for industries to invest in clean technologies and develop innovative ways to reduce pollution. California Climate Investment projects include affordable housing, renewable energy, public transportation, zero-emission vehicles, environmental restoration, more sustainable agriculture, recycling and much more. At least 35 percent of these investments are located within and benefiting residents of disadvantaged communities, low-income communities, and low-income households across California. For more information, visit the California Climate Investments website at: www.caclimateinvestments.ca.gov

The community solar pilot projects awarded CSD funds will enable solar facilities to be located off-site, with a variety of possible ownership models; offer benefits to households who otherwise face barriers to clean, renewable energy; and may offer models to increase options for access to solar energy for low-income households. The objective for this pilot program is to implement and test models to deliver community solar to low-income households in ways that have the potential to be replicated elsewhere and to scale, thus bringing widespread benefits of solar energy to low-income populations, reducing GHG emissions, and realizing other co-benefits for the community (e.g. economic development; job training and job creation; wider knowledge of clean energy possibilities and benefits; and household health benefits).

With program oversight and direction provided by the California Air Resources Board (CARB), CSD and a select number of community solar project awardees will implement the pilot program. During 2017, CSD hosted multiple stakeholder meetings, administered stakeholder surveys and spoke with utility companies, community choice aggregators, non-profit organizations and advocates, state agencies and others regarding the development of this low-income community solar pilot in

California. This engagement has informed the development of this Program Design Outline for review and comment by stakeholders.

Later this year, CSD will issue a procurement opportunity to select organizations to offer low-income community solar services. CSD values the input of potential Proposers and seeks their review and comments on this document.

4. Solar Programs in California

4.1 CSD Solar Programs

Single-Family Programs

With the first LIWP appropriation in fiscal year (FY) 2014-15, CSD expanded its low-income energy efficiency program by funding a Single-Family Solar PV program and solar pilot providing solar PV installations at no-cost to eligible low-income households in disadvantaged communities. With subsequent appropriations, CSD introduced a new program model that integrates the offerings of both energy efficiency and renewable energy to eligible households in disadvantaged communities.

Multifamily Program

CSD also selected a single statewide administrator for a Multifamily Energy Efficiency and Renewables Program, which provides technical assistance and incentives for property owners installing energy efficiency upgrades and solar measures.

4.2 Other Programs

Other California solar programs offer solar PV incentives to low-income home owners or affordable housing property owners. These include the Single-family Affordable Solar Housing (SASH) Program and the Multifamily Affordable Solar Housing (MASH) Program in investor owned utility (IOU) service territories. SASH is restricted to owner-occupied homes, and together with the newly authorized Solar on Multifamily Affordable Housing (SOMAH) program, these programs require that the solar PV array be located on the same property as the building housing the participating households. If a property is shaded or does not have the roof integrity or structural support to add a solar system, or a multifamily property owner chooses not to participate, households in those buildings are limited in their ability to benefit from solar energy.

More recently California's Green Tariff Shared Renewables (GTSR) program, mandated by legislation (Senate Bill (SB) 43) in 2013 and approved by the California Public Utilities Commission (CPUC) in early 2015 for IOUs, comprises two different options for their customers: a Green Tariff and an Enhanced Community Renewables (ECR) option. Under the Green Tariff option, participants can voluntarily agree to pay their utility a renewable energy rate to purchase energy derived from utility-owned solar facilities. The ECR component was designed to allow customers to choose from an array of developer-led options to find a program that suits their locational and budgetary preferences and other factors. However, opportunities for competitive selection of solar facility capacity through twice a year solicitations have not currently resulted in any projects actively enrolling customers. The GTSR program also requires that non-participating ratepayers are held indifferent, which restricts cross-subsidy between non-participating ratepayers and participating customers (including subsidies for low-income participants).

Some Publicly Owned Utilities (POUs) and newer Community Choice Aggregators (CCAs) have also offered similar green tariff programs.

5. Community Solar Pilot Goals

Goal #1: Test workable community-focused models to reduce GHG emissions in California through investment in new clean energy generation facilities and delivery of benefits to low-income households.

Goal #2: Increase access to clean energy generation options for low-income households.

Goal #3: Reduce household energy costs.

Goal #4: Provide economic, health, and other co-benefits to communities.

The Community Solar Pilot's primary goal is to test workable delivery models to provide renewable energy from community solar facilities to benefit qualifying households, as well as to reduce GHG emissions. Further, there is an expectation that solar facilities can stabilize or reduce the long-term cost of electricity. Alternate implementation approaches that merit testing for feasibility and/or potential to replicate and scale may apply to project size, economic value, participant enrollment, and partnership arrangements.

It is anticipated that the availability of CSD funds will address barriers that low-income households might otherwise experience in seeking to access available community solar options, such as premium costs and/or qualifying conditions.

In addition to these primary goals, projects should also provide important co-benefits, such as reducing household long-term energy bills, reducing air pollution and helping to achieve air quality standards, improving public health, and stimulating the local economy. Lowering household energy bills leaves more money for necessities like food, transportation, housing and medicine. When households have more money available, they usually spend those dollars in their local community, compounding the benefits of local economic investment.

Projects should also offer opportunities for job creation, job training and related economic benefits in communities served. These benefits may be maximized through a variety of methods that may vary based on the demographics and needs of their local communities. Methods may include:

- Partnering with local Workforce Investment Boards to offer internships/hands-on training to individuals who have received classroom or other training elsewhere
- Directly hiring workers from communities served to fill positions created
- Negotiating employment agreements with hired subcontractors to hire individuals from the population served

Proposers will be required to identify workforce development and other co-benefit strategies associated with their proposals.

6. Community Solar Pilot Awards

CSD anticipates making between 2-6 awards to projects with a minimum solar array size of 250 kW, with no single award to exceed \$3,000,000. This should allow testing of several prototype delivery models while still allowing the potential for some economy of scale to be realized.

Selection will consider not only direct economic value, but also community benefits and the merits of the business or delivery approach for attaining the program's overall goals.

CSD reserves the right to decrease or increase the funds available based on proposals submitted or other factors, and to negotiate with Proposers on amounts to be awarded based on funds available and benefits anticipated.

6.1 Timeline

Tentative key dates for the procurement and contract are as follows:

Activity	Date
Draft solicitation document and draft Program Guidelines released for public comment	June 19, 2018
Stakeholder Meetings and Public Hearing on draft Program Guidelines	June/July 2018
Deadline to submit comments on draft documents	July 19, 2018
Final solicitation documents and Program Guidelines released	August 1, 2018
Optional Bidders' Conference	August 2018
Intent to Bid submission	September 4, 2018
Deadline to submit Proposals	October 2, 2018
Notice of Intent to Award posted	October 31, 2018
Contract Start Date	January 1, 2019
End of Contractor Reimbursement Period	June 2021
End Date for Contractor Reporting Period	June 2023

Since encumbrance and expenditure time limits apply to CSD's GGRF appropriations, contractors will be required to ensure that awarded projects can be operational and delivering benefits by the end of the contractor reimbursement period. Reporting requirements will continue to apply during a subsequent contract reporting period with costs borne by awardees.

Key dates are subject to change as necessary.

7. Eligibility for Prime Proposer and Team Capabilities

7.1 Prime Proposer/Awardee Eligibility and Contract Structure

Prime Proposer and awardee eligibility is limited to:

- 501 (c) (3) tax-exempt organizations
- Local government entities
- Publicly Owned Utilities
- Community Development Finance Institutions (must be a non-profit)
- Community Development Corporations
- Joint Powers Authorities
- Tribal Governments
- Community Choice Aggregators

The prime Proposer must have experience working in the community or region in which they are proposing a community solar project, and the Proposer's team must have a physical presence in the region. A community solar project awardee may subcontract with other governmental, non-profit or for-profit entities to form a consortium or a team, but the awardee would be solely accountable for performance of the group. An awardee may also subcontract for needed services with for-profit or non-profit entities without forming and representing an organized consortium.

Awardees and all partner organizations must be in good standing with the California Secretary of State, and all appropriate local and state oversight licensing authorities.

7.2 Team Capabilities and Support

The Community Solar pilot is intended to test prototypes and innovative approaches to delivering community solar benefits for low-income households. While there may be a range of business models or project arrangements proposed, proposer teams will be assessed and scored on the following skill-sets, experience and capabilities:

- Administering community-focused solar, energy efficiency, or other clean energy programs
- Outreach, education, and enrollment of low-income households to participate in energy programs
- Ability to develop and oversee construction and operation of a solar facility of 250 kW or larger
- Experience in negotiating and completing arrangements with utilities for resource procurement and grid interconnection
- Knowledge pertaining to any required specialized billing functions for participants
- Financial, fiscal, contracting, administration, risk management and database functions sufficient to fulfill project management functions for the Community Solar project

References will be required for the Proposer and proposer team. Proposals should also include any relevant commitments and agreements. At a minimum, proposals should include:

- A Letter of Support (or description of applicable arrangements) from an Electric Load-Serving Entity
- A description of the intended legal structure and the roles various team members will play
- Letters of Support from each team entity's governing body, if relevant

CSD does not plan to require the Electric Load-Serving Entity be a formal member of a proposer team. However, there are certain functions and activities that a utility or other entity must handle (e.g. interconnection to the local power grid) and may potentially offer depending on the program design (e.g. a capital contribution, utility bill credits). CSD welcomes input on whether any specific Electric Load-Serving Entity involvement or additional commitments should be a requirement for all bids.

8. Pilot Project Design Considerations

8.1 Location of Facility

Assembly Bill (AB) 1550 (Gomez, Chapter 369, Statutes of 2016), increased the percent of California Climate Investments funds for projects located in disadvantaged communities from 10 to 25 percent and added a focus on investments in low-income communities and low-income households anywhere in the state. For the Community Solar Pilot, CSD has the option of allowing benefits to serve other priority populations² outside of disadvantaged communities. CSD will therefore accept applications from projects with facilities located in and serving low-income households in the relevant utility service territory anywhere in the state.

² Priority populations include residents of: (1) census tracts identified as disadvantaged by California Environmental Protection Agency per SB 535; (2) census tracts identified as low-income per AB 1550; or (3) a low-income household per AB 1550.

While the generating solar facility may be located anywhere in the state in the relevant utility service territory, additional points will be given to proposals if the facility is located within an AB 1550 Low-Income Community or a disadvantaged community and based on proximity to participant households.

An interactive map of these communities may be accessed at:
www.arb.ca.gov/ci-communityinvestments

8.2 Participant Eligibility

Communities Served: CSD plans to give some priority in scoring to projects serving residents of disadvantaged communities or residents of AB 1550 Low-Income Communities.

Who May Benefit: Low-income residential participants benefiting from California Climate Investments funds may include owners or renters of single-family homes, multifamily dwelling units, or mobile homes. Households already benefitting from existing solar PV installations will be excluded from participating. Higher-income households, schools, churches, businesses or any other non-residential institutions may not benefit from the share of the electricity generated that is linked to CSD's California Climate Investments funding. However, California Climate Investments funds may be used for either a stand-alone project or a carve-out of a larger project with multiple beneficiaries (see Section 8.7).

Household eligibility will be required to be established in one of the following ways:

A. Household Income Eligibility

Household income eligibility will be set at the AB 1550 definition of at or below 80 percent of State Median Income (SMI) or 80 percent of the Area Median Income (AMI). AMI is subject to annual changes based upon the U.S. Department of Housing and Urban Development's income guidelines. Information on current income eligibility in each county (80 percent of AMI is deemed "low-income") is available at:

<http://www.hcd.ca.gov/grants-funding/income-limits/state-and-federal-income-limits.shtml>

B. Categorical Eligibility

Categorical eligibility may be used in lieu of income verification to determine eligibility for households to receive Community Solar services. Qualifying programs for categorical household eligibility will be restricted to those with income eligibility standards that are in accord with the AB 1550 definition of low-income households (see Glossary).

8.3 GHG Emission Reduction

Because California Climate Investments funding has the primary goal of reducing GHG emissions, CSD will only consider proposals that create new energy generation offsetting existing electricity grid usage. Existing arrays will not be considered because they do not introduce new GHG emission reduction within the state. Proposals to expand array capacity on existing solar facility sites for dedication to new Community Solar beneficiaries are eligible.

8.4 Regulatory and Legal Environment

Proposers are required to design and propose a project that complies with all federal, state, county, and local laws, ordinances, regulations and orders (building, planning, zoning, environmental, Electric Load-Serving Entity interconnection, etc.), and tax, ownership and securities laws and regulations in effect at the time of bid submittal. Proposers will be required to indicate how each proposed project is or will be compatible with all such relevant requirements. Proposers should

also address any implications relating to renewable energy credits or federal or state securities laws from their proposed model.

CSD understands there are a number of current CPUC proceedings that may impact community solar options in IOU territories. However, given the time limits applying to CSD's appropriation discussed in Section 6.1, extension of the procurement period could pose challenges for pilot project implementation and success.

8.5 Siting Considerations

All proposers must have a specific project and site identified, and proposers will be expected to address size, costs, ownership, project feasibility determinations, and other applicable due-diligence preparations or agreements.

Site Eligibility and Clearances: There are few restrictions on where solar panels may be placed. Panels could be located on a non- or for-profit building (school, small business, or large business), vacant land, etc. However, proposers will be required to demonstrate that any project or component thereof will not result in loss or conversion of agricultural lands by determining the project site is not designated as agricultural land by the Department of Conservation's Farmland Mapping and Monitoring Program (FMMP) Tool. Waivers for infill development may be considered. Proposers will also be required to indicate whether other working lands or natural lands will be lost or converted, and CSD reserves the right to consider further restrictions.

Completion and approval or adoption of all necessary environmental clearances including those required under the California Environmental Quality Act and if applicable, the National Environmental Policy Act, will be required for awarded projects to move forward. Proposers will be required to indicate if the project has CEQA clearance for its site, and if not, if CEQA clearance will be required. If future CEQA clearance is required, proposals must include the timeline for review and approval, the likelihood of securing clearance, and whether there are alternative approaches should the proposed location not receive environmental clearance.

Multifamily Considerations: Under existing Virtual Net Energy Metering (VNEM) rules in IOU territories, solar systems may be installed on a multifamily housing/multi-tenant building, and the credits generated from that system can be applied to the occupants of that building. While the credit allocation is "virtual", households receiving the credits are required to be residents of the property where the solar system is located. CSD does not consider this a Community Solar project for the purposes of this pilot. However, a project benefiting multiple property locations or participants outside of the "host" multifamily property would be eligible. Individual tenants of multifamily properties or condominium owners with their own utility bills would also be eligible to participate in a broader community solar model.

8.6 Green-e Energy Certification

CSD will require Community Solar pilot projects to be Green-e Energy-certified. Green-e is administered by the nonprofit Center for Resource Solutions. Since 1997, Green-e Energy has certified renewable energy that meets environmental and consumer protection standards that it developed in conjunction with leading environmental, energy and policy organizations. Green-e Energy certifies renewable energy that is generated from new facilities, marketed with complete transparency and accuracy, and delivered to the purchaser, who has sole title. For more information visit: <https://www.green-e.org/programs/energy>

8.7 Stand-alone and Carve-out Projects

A “carve out” indicates that some minimum, and possibly a maximum, share of the solar facility’s capacity or production output would be dedicated to eligible low-income households, while other participants would benefit from the remaining share. A “stand alone” project would dedicate 100% of its capacity or production output to eligible households. Both “carve out” and “standalone” models are eligible, but proposals will be evaluated on the GHG and other benefits accruing from the portion of the project dedicated to low-income households and California Climate Investments funds awarded.

8.8 Consistency with Local and Regional Plans

Proposers will be required to demonstrate that proposed projects are consistent with all relevant local and regional plans that have been adopted or amended within the last ten (10) years, including:

- The local jurisdiction’s General Plan
- Any Specific Plans or Community Plans that overlap with the proposed project area
- Any Climate Action Plan that overlaps with the proposed project area
- Any regional plans adopted by Metropolitan Planning Organizations, including the Sustainable Communities Strategy, that include the proposed project area

Being consistent means following any relevant land use designations, zoning, and applicable goals, policies, and programs. Consistency shall be demonstrated by submittal of a letter from the local jurisdiction’s Planning Department describing the proposed projects’ consistency with all relevant plans as described above. If the local jurisdiction’s General Plan, and other applicable Specific Plans or Community Plans, have not been updated within the last ten years, the letter from the local jurisdiction’s Planning Department must verify the project is consistent with the jurisdiction’s local land use policies.

8.9 Use of Funds

CSD’s funding may be used for any purpose related to project construction and implementation, to operate the program, and/or to lower participant energy costs, with exception of land purchases. CSD reserves the right to determine if additional costs should be deemed ineligible. Specifically, uses may include, but are not limited to:

- Paying for capital costs of development and construction of solar facility
- Funding a loan loss reserve or other payment guarantee fund to protect against late or non-payments by participants
- Subsidies to eligible households to lower a monthly solar subscriber payment
- Direct or indirect costs for program administration, outreach and enrollment

Pre-construction costs that may include those associated with obtaining necessary permits, environmental impact reports, or other regulatory requirements to facilitate solar facility construction may also be eligible for reimbursement. However, it will be the awardee’s responsibility to cover pre-construction costs and seek reimbursement for costs in accord with the contract terms and upon receipt of all approvals required to commence construction. Proposers will be required to include such costs in the proposed project budget and may be reimbursed on a Not to Exceed basis upon receipt of necessary local, state, and federal clearances.

8.10 Leveraging of Funds

A specific level of leveraged funding or match dollars will not be required. However, Proposers are encouraged to seek and commit other resources to each proposed model or project. This could include taking advantage of any renewable energy or low-income assistance initiatives, or

leveraging community development projects or other efforts that could jointly benefit the same targeted population. External funding sources could also be leveraged for:

- Labor or materials (in-kind contributions)
- Donated land
- Paying for or waiving interconnection fees
- Marketing, Outreach and Consumer Education
- Household energy efficiency measures
- Property repair or rehabilitation
- Remediation of household health and safety issues
- Workforce Development and Employment

8.11 Solar Asset Ownership

There are no restrictions on what kind of entity can own the solar facility.

8.12 Solar, Storage, and Microgrids

There are no restrictions on interconnected microgrids or incorporating storage in project design. Proposals that remove existing customers from the electric grid are also eligible. Proposers should address any implications relating to storage, costs, and time-of-use rate plans from their proposed model in their Work Plan and budgets.

8.13 Performance Bond Requirement

A performance bond (a surety bond issued by an insurance company or a bank to guarantee satisfactory completion of a project by a contractor) will be required and should be factored into Proposers' Project Budgets.

8.14 Utility Resource Procurement and Grid Integration Rules and Requirements

Awardees will be expected to independently make any relevant arrangements with the local Electric Load-Serving Entity, and as necessary with the California Independent System Operator (CAISO), for:

- Resource procurement acceptance for the solar capacity and commodity production, including any financial arrangements for serving "departing load" and any applicable power cost indifference charges (as applicable to each location and project)
- Grid integration for distributing the solar production on the power grid
- Billing arrangements for any applicable credits, charges, fees, etc. for participant households

9. Proposal Requirements

9.1 Work Plan and Timeline

Proposers will be required to include a credible Work Plan and Timeline that ensures solar PV energy generation and delivery of benefits would be achievable during the contract term. The Work Plan should include details of the facility site and location selection; design, equipment and materials; site preparation; construction; and interconnection. The Work Plan should clearly delineate team roles and responsibilities. Proposers should include a statement as to how all components and designs meet all applicable regulatory and industry safety, environmental, and operational codes and standards, as appropriate.

In addition to details of facility development and construction, the Work Plan should include maintenance and operation plans. The Work Plan and Timeline should also include progress milestones that demonstrate sustained progress toward project implementation. This could include key milestones for developing community solar project infrastructure, establishing partnerships with important stakeholders, securing leveraged dollars, engaging both the community and project beneficiaries, and delivery of benefits.

Detailed timeline milestones addressed in the Work Plan may, depending on the proposed model, include:

- Power Purchase Agreement and grid interconnection agreement: Months 1-6
- Facility construction: Months 12-24
- Participant outreach and enrollment: Months 3-6, then ongoing to replace participants, as needed
- Facility energy generation and allocation of benefits to participants: Monitored and reported to CSD over the specified life of the facility or specified time period

Reliable solar energy production, effective administrative arrangements, a sufficient number of participants, and payments as agreed to by all parties are examples of key elements required for a successful project. Proposers' Work Plans should provide assurances and protective steps to be taken that ensure:

- The solar facility generates the requisite solar energy
- Sufficient revenues are obtained to deliver anticipated benefits
- Performance standards and contract obligations are met through effective management of the community solar project awardee team
- Ongoing operations and maintenance requirements are met (including a plan for repair and replacement of equipment (inverters, panels, etc.) both during and outside of any warranty periods)
- Ongoing fiscal and legal obligations are met (taxes, insurance, permits, etc.)

Proposals will be evaluated based on feasibility and comprehensiveness of the Work Plan and Timeline.

9.2 Customer Enrollment and Service Plan

Proposers will be required to include a credible Customer Enrollment and Service Plan that addresses use of funds and solar production allocation to benefit low-income households over specified time periods. This should include:

- Details of energy generation (see Section 9.6 for Benefits Calculator Tool) and distribution of benefits, including expected total kilowatt-hours (kWh) benefiting low-income participants over the life of the project
- Location of low-income households to be served and their proximity to the facility location
- Anticipated number of participating low-income households
- Participant billing or other subsidy arrangements, including terms and conditions
- Energy cost/savings impacts

The discussion of the planned allocation of solar production benefits should address relevant project considerations including:

- Distribution of benefits, such as allocating a small share of benefits to a large number of beneficiaries, or a larger share to a smaller number
- Quantification of anticipated savings (for example, this might be described as the net present value (NPV) of estimated subscriber bill reductions from 2018 base participant

retail rates, cumulative over the participant contract period for anticipated number of participants)

Enrollment: Each Proposer shall demonstrate plans to enroll and serve eligible beneficiaries, addressing elements that may include but are not limited to:

- Marketing and Outreach
- Intake and Eligibility Verification Procedures
- Enrollment Arrangements
- Education on Managing Household Energy Costs
- Management of Participant Turnover
- Management of Billing and Non-Payment Issues

It is expected that proposers will not rely upon household credit scores to qualify low-income participants in the Community Solar Pilot.

Consumer Protections: Community solar project awardees will be required to provide program participants with detailed information on terms and conditions. This could include, as relevant, information about anticipated renewable energy bill credits and electricity rates, any changes in low income discounts, and / or other billing details and benefits, along with the terms and obligations of their subscription into the community solar project.

Proposers' Customer Enrollment and Service Plans will be required to discuss their approach to consumer education and protection. This could include, for example:

- Contract Terms
 - Duration or term of the contract
 - What happens if a participant relocates
 - Rights to terminate or change the contract
 - Fees, Credits, Penalties and Other Costs and Benefits during contract term
- Facility Information
 - Production Guarantees
 - Ownership Arrangements
 - Allocation of state and federal solar incentives and renewable energy credits
 - Compensation rate/s for electricity generated from the project, regulatory risk, and impacts of any changes

Proposals will be evaluated based on the energy costs benefits to be realized and on the feasibility and replicability of the proposed approach. CSD will evaluate total energy cost benefits to low-income participants per California Climate Investments dollars awarded and score proposals based on an indexed approach.

9.3 Community Engagement Plan

Potential Proposers are encouraged to conduct community engagement to the extent feasible. There are multiple community engagement strategies that may be utilized by a Proposer prior to submitting a proposal, and by a community solar project awardee in project implementation. Examples of potential community engagement strategies include:

- Community leadership and decision-making. Proposers could develop a steering committee comprised of community residents to, in partnership with proposers, oversee project design and development.
- Community collaboration and partnership. Proposers could partner with community-based organizations or community residents in a way that informs project design and/or selection among project alternatives prior to applying for funding. This may include

residents participating, with technical support, in the development of project alternatives or components, or having residents choose a preferred project from among two or more alternatives either as members of a project selection committee or community voting process.

- Outreach, education, and consultation. Proposers could conduct community consultation (e.g., via workshops, roundtable discussions, focus groups, surveys) to inform, educate, learn from the community, and consider their input in early stages of project development and design.

Proposers will be required to include a Community Engagement Plan that describes methods that have been and/or will be used to engage residents and key stakeholders during project development and implementation, and describe how methods and outcomes will be evaluated.

Proposals will be evaluated on the robustness of the combination of activities proposed to engage community stakeholders and the evaluation plan.

9.4 Project Burdens and Co-Benefits Statement

Substantial Burden/s: CSD and other agencies receiving California Climate Investments funding are required to consider whether a given project type has the potential to result in substantial economic, environmental, and public health burdens (e.g., physical or economic displacement of low-income residents and businesses, increases of criteria or toxic air pollutants) in disadvantaged communities and low income communities, and design programs in such a way as to avoid or minimize potential substantial burdens.

Proposers will be required to identify potential substantial burdens created by the proposed project/s. Proposers are encouraged to engage community members and community advocates in identifying potential substantial burdens and how the project will avoid or minimize identified substantial burdens.

Co-Benefits: In addition to GHG emission reduction and energy savings for low-income participants, Proposers will be required to identify co-benefits to be achieved through the project. Co-benefits may include, but not be limited to:

- Integration of energy efficiency or other household improvements through leveraged funds
- Identifying and serving participants with the greatest needs
- Job creation and training opportunities
- Household and community health effects
- Community economic benefits

Proposers should also address plans to evaluate and report on the co-benefits that are included in the proposal.

In an effort to enhance analysis, provide greater transparency, and assist in project level reporting, CARB has developed co-benefit assessment methodologies and is expanding the functionality of calculator tools to estimate additional co-benefit and key variable outputs. Proposers are encouraged to review the Draft Co-Benefits Assessment Methodologies released by CARB. The Co-Benefit Assessment Methodologies that are applicable to community solar pilot projects include:

- Asthma/Respiratory Disease Incidence;
- Air Pollutant Emissions;
- Energy and Fuel Cost Savings;

- Soil Health and Conservation;
- Climate Adaptation;
- Community Engagement; and
- Jobs.

Drafts are available at: www.arb.ca.gov/cci-cobenefits

Proposals will be evaluated based on the avoidance or minimization of substantial burdens, the robustness of the co-benefits to be achieved, and the evaluation plan within the contract term.

9.5 Project Budget, Operating Budget (Income and Expenses), and Budget Narrative

Proposers will be required to submit the following budget documents (formats for the Itemized Project Budget and the Operating Budget will be included in solicitation materials):

Itemized Project Budget: The project budget should include all relevant project costs including, but not limited to:

- Installation, Equipment, and Material/Miscellaneous costs
- Loaded Salary Costs that include direct, fringe and indirect costs
- Subcontractor Costs
- Outreach and Intake Costs
- Administrative and Indirect Costs

For each budget line item, Proposers will be required to enter the proposed California Climate Investments funding contribution, other external/leveraged funding amounts (including financing sources and in-kind contributions), and total costs.

Operating Budget (Revenue and Expenses): Proposers will be required to include an Operating Budget consisting of all revenues and expenses over the life of the project. This should include details on how revenue projections have been estimated, and allocation of benefits. The Operating Budget should also include costs for the Operations and Maintenance Plan for the facility, including funding sources for the plan.

If operating income is being reinvested in project costs, or in other community benefits, this should also be identified in the Project Budget and/or Budget Narrative.

Budget Narrative: A budget narrative shall be included detailing the itemized budget line items and operational plan, including allocations to partners and subcontractors. The narrative should identify total California Climate Investments funds requested and other funding sources that will be used for this project. It should describe secured funds and detailed plans for attracting any additional funding. This should include a detailed description of any financing and repayment plan for the project including construction and/or operating costs, and the secured or anticipated source(s) of construction and term financing. Proposers should also:

- Describe how the Federal Investment Tax Credit (“ITC”) established pursuant to the U.S. Internal Revenue Code would apply to the project, if applicable
- Describe any other awards, grants, special tax treatment or credits, loan guarantees or other subsidies that are or may be sought for the project
- Describe any subsidies, identify any critical schedule deadlines, and indicate the anticipated likelihood of the project receiving such subsidies

- Explicitly identify the economic and other impacts to the project if a subsidy is not received

Budget documents will be evaluated based on the feasibility of the project and budget; the reasonableness of leveraging and/or financing plans; the potential to secure any external dollars; cost-competitiveness with other applications; and appropriateness of program support activities to sustain the project for the identified term.

9.6 GHG Emission Reductions, Air Pollutant Emission Co-benefits and Other Key Variables

Awardees will be required to follow the methodology outlined in the Quantification Methodology for the Department of Community Services and Development's Low-Income Weatherization Program Community Solar Pilot document to estimate GHG emission reductions and air pollutant emission co benefits.

Proposers will be required to complete and submit a Benefits Calculator Tool for the Community Solar Pilot to be provided by CARB with the release of the Quantification Methodology. This Benefits Calculator Tool estimates the following co-benefits and key variables from Community Solar Pilot projects:

- Total Annual Renewable Energy Generation (kWh)
- Total Lifetime Renewable Energy Generation (kWh)
- Total nitrogen oxide (NOx) emission estimates (lbs)
- Total reactive organic gases (ROG) emission estimates (lbs)
- Total fine particulate matter less than 2.5 micrometers (PM2.5) emission estimates (lbs)
- Total annual energy cost savings (\$)
- Total lifetime energy cost savings (\$)
- Agricultural or natural land area converted or disturbed by solar PV installation (acres)
- Total GHG Emission Reductions per Total Funds (MTCO_{2e}/)
- Total GHG Emission Reductions per Total GGRF Funds* (MTCO_{2e}/)

*California Climate Investments Funds

Evaluation of GHG emission reductions will be based on total GHG emission reductions from the portion of energy generated that is dedicated to low-income households per total California Climate Investments funds requested (MTCO_{2e}/). The Proposal offering the most cost effective GHG emission reductions (in dollars per MTCO_{2e} reduced) will earn the maximum component points, with points then awarded to other proposals through a cost comparison formula.

Proposers should discuss whether GHG emission reductions from any part of the project will be reported to any other entity or claimed in any way.

A draft Community Solar Pilot Quantification Methodology and Benefits Calculator Tool have been released along with this Program Design Outline and are available at:

www.arb.ca.gov/cci-quantification

A final Quantification Methodology and Benefits Calculator Tool will be released prior to the procurement.

10. Scoring Considerations

To be successful, a proposal will be required to:

- Demonstrate how the Pilot’s goals will be met
- Demonstrate the abilities of the Proposer team to deliver both the solar facility production and the community solar project services, with clear accountability
- Demonstrate financial soundness and stability to adequately develop and maintain the project for the life of the project
- Comply with all required Proposal Requirements identified in Section 9.
- Offer a model that has the potential to be replicated more widely in California and is scalable

CSD anticipates evaluating proposals and awarding points in the following proposal components:

Proposal Area	Possible Points to be Awarded
Proposer Team Qualifications and Capacity	40
Facility and Participant Location	6
Workplan and Timeline	20
Customer Enrollment and Service Plan	14
Energy Cost Benefits for Low-income Participants	40
Community Engagement Plan	6
Project Burdens and Co-Benefits	20
Project Budget, Operating Budget (Income and Expenses), and Budget Narrative	14
GHG Emission Reductions	40
TOTAL	200

CSD reserves the right to establish minimum requirements and issue a new solicitation if an insufficient number of proposals fail to meet a specified minimum score.

11. Awardee Considerations

11.1 Contracts and Reimbursements

CSD anticipates executing contracts with awardees with a contract term of January 1, 2019 through June 2023, with project reimbursements through June 2021.

Awardees will be eligible for advance payments with parameters to be established by CSD. As specified in contracts, expenses may be reimbursed by CSD on a cost reimbursement basis. However, payments may be structured, in part, in accordance with reaching specified progress milestones for facility development and participant enrollment as negotiated with awardees.

11.2 Technical Assistance

CSD has a small amount of additional funding that may be made available to provide technical assistance to awardees to ensure they successfully proceed through project development

milestones. These funds could be awarded to multiple awardees in proportion to the \$5 million awarded. Anticipated assistance, with needs and requirements to be identified in contract negotiations, may include the following:

- Liaison with Electric Load-Serving Entity to arrange grid interconnection
- Liaison with utility on billing arrangements
- Execution of power purchase agreement
- Development of local workforce development plans
- Development of participant information and disclosure information
- Execution of community engagement plan
- Data analysis or systems

11.3 Reporting Requirements

Accountability and transparency are essential elements for all California Climate Investments. Awardees will be required to provide reporting and recordkeeping consistent with the quantification methodologies and reporting guidance developed by CARB and the requirements established by CSD. CARB's Funding Guidelines for Agencies Administering California Climate Investments Funds are available at: www.arb.ca.gov/ccifundingguidelines

CSD will require awardees to track and report project information that may include, but not be limited to, kWh generation, GHG emission reductions, household and billing data, and workforce information (e.g., jobs and training opportunities created, hours worked, salaries and benefits paid, credentials earned, and whether employees are members of priority populations).

The level and duration of reporting and record retention will vary depending upon type and length of project funded by CSD. For example, Quarterly Progress Reports on the project/facility development progress may be required to provide detailed updates on:

- Status of facility design and construction
- Project schedule including tasks completed and progress on incomplete tasks
- Project operating budget and income and expenditures
- All required CARB metrics
- Community engagement
- Evaluation of co-benefits realized

CSD may also impose other reporting requirements that will allow CSD to track and manage progress towards goals, and to report, as necessary, to other agencies and organizations that seek updates on the progress of California Climate Investments spending and GHG saving.

11.4 Auditing and Monitoring

Auditing: For project auditing and evaluation, the State shall have the right to inspect the work and audit any associated records at any or all reasonable times as part of Community Solar pilot projects oversight. This right shall extend to any subcontracts, and awardees shall include provisions ensuring such access in all contracts or subcontracts. The State retains the right to audit any community solar project awardee.

Monitoring: CSD has field monitoring staff responsible for conducting on-site reviews of LIWP Awardees. During monitoring visits, CSD Field Monitors verify adherence to contractual obligations, including: methods of procurement, providing subcontractor oversight, work quality assurance, staff training, project progress, project costs, review of participant files, and more. Organizations that fail to adhere to contractual obligations may be in jeopardy of losing future funding or may be subject to the disallowance of expenditures and to the return of amounts paid.

CSD reserves the right to require verification of production and benefits allocations.

11.5 Pilot Evaluation

CSD or an independent evaluation consultant will evaluate the effectiveness of and lessons learned from the Community Solar Pilot. It is anticipated the evaluation will draw upon the pilot awardees' reports, underlying data and records, and any additional information the evaluation approach may require.

Appendix I: Glossary of Terms

Awardee – A Community Solar Prime Proposer selected to enter a contract with CSD and receive funding to implement a community solar project in compliance with contract terms and conditions.

California Independent System Operator (CAISO) – The nonprofit public benefit corporation that manages the flow of electricity across the high-voltage, long-distance power lines that make up 80 percent of California’s and a small part of Nevada’s grid. CAISO grants equal access to transmission lines and coordinates competing and diverse energy resources into the grid where it is distributed to consumers. It also operates a competitive wholesale power market designed to promote a broad range of resources at lower prices.

Categorical Eligibility – A determination that certain households will be eligible to participate without consideration of income or resources, based on their participation in a program that has income standards comparable to AB 1550’s definition of low-income households

CalEnviroScreen – A tool developed by the Office of Environmental Health Hazard Assessment (OEHHA) under CalEPA’s guidance to assess areas that are disproportionately affected by multiple types of pollution and areas with vulnerable populations. CalEnviroScreen includes numerous indicators in two broad categories: “Pollution Burden,” which includes exposures and environmental effects; and “Population Characteristics,” which includes sensitive populations and socioeconomic factors. The indicator scores are combined for each census tract to determine an overall CalEnviroScreen score. The higher the score, the greater the impact.

Community Choice Aggregation (CCA) – Allows local governments and some special districts to pool (or aggregate) their electricity load in order to purchase and/or develop power on behalf of their residents, businesses, and municipal accounts. Operated by Community Choice Aggregators, CCA is an energy supply model that works in partnership with the region’s existing utility, which continues to deliver power, maintain the grid, provide consolidated billing, and other customer services.

Community Solar Facility(ies) – Refers to the solar power generation arrays constructed and serving community solar customers.

Community Solar Pilot – Refers to CSD’s allocation of \$5 million and the community solar projects receiving funds to test models for delivering community solar energy to eligible low-income households in California.

Community Solar Project – Refers to a project that is awarded Community Solar Pilot funds to develop and operate a solar generating facility that commits all or a portion of its solar production to benefit eligible households.

Disadvantaged Communities (DAC) – Census tracts identified by the Secretary for Environmental Protection at CalEPA, as required by state law, based on geographic, socioeconomic, public health, and environmental hazard criteria. The criteria may include, but are not limited to:

- Areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation.
- Areas with concentrations of people that are of low-income, high unemployment, low levels of homeownership, high rent burden, sensitive populations, or low levels of educational attainment.

To meet the statutory mandate, CalEPA uses a tool called CalEnviroScreen to help identify disadvantaged communities for the purpose of AB 1550 investments.

Electric Load-Serving Entities (LSEs) – Includes IOUs, POU, Rural Electric Cooperatives, Community Choice Aggregators and Electric Service Providers. A complete list of LSEs in California is available at: http://www.energy.ca.gov/almanac/electricity_data/utilities.html

Investor-Owned Utilities (IOUs) – Private electricity and natural gas providers. The California Public Utilities Commission (CPUC) oversees IOUs. Pacific Gas and Electric, San Diego Gas and Electric, and Southern California Edison comprise approximately three quarters of electricity supply in California.

Low-Income Communities – AB 1550 defines “low-income communities” as those census tracts with: 1) median household incomes at or below 80 percent of the statewide median income; or 2) median household incomes at or below the threshold designated as low-income by Department of Housing and Community Development’s State Income Limits (HCD State Income Limits). Census tracts that satisfy either of these definitions are identified as “low-income” for the purpose of AB 1550 implementation.

Low-Income Households – AB 1550 defines “low-income households” as those with: 1) a household income at or below 80 percent of the statewide median income, or; 2) a household income at or below the threshold designated as low-income by the Department of Housing and Community Development in its annual State Income Limits letter (adopted pursuant to the Health and Safety Code Section 50093). See: <http://www.hcd.ca.gov/grants-funding/income-limits/state-and-federal-income-limits.shtml>

Publicly Owned Utilities (POUs) – POU are subject to local public control and regulation. POU are organized in various forms including municipal districts, city departments, irrigation districts, or rural cooperatives. Municipal districts may include territories outside city limits or may not even serve the entire city. Cooperatives are owned by the customers they serve usually in rural areas. There are more than 40 POU in the state that account for approximately a quarter of electricity supply in California. Most POU are smaller than IOUs in both total electricity sales and number of customers served.

Program Guidelines – Required public documents relating to programs developed by agencies administering California Climate Investments funds that include the following common elements:

- GHG emission reductions
- Meeting investment minimums for priority populations
- GHG quantification methodologies and co-benefit assessment methodologies
- Project selection requirements
- Project implementation requirements
- Project tracking, metrics, and reporting
- Accountability tools for legal agreements

Prime Proposers – Eligible entities submitting proposals to CSD for Community Solar Pilot funding.

Proposals – Documents submitted by Prime Proposers in response to CSD’s solicitation documents for Community Solar Pilot funding.

Proposer Teams – A group of partner organizations coordinated by a Prime Proposer that have delineated roles and responsibilities in a proposal and implementation of a community solar pilot project.

Quantification Methodologies – Documents and tools developed by the California Air Resources Board to provide project-level GHG or co-benefit estimates that are supported by empirical literature and that:

- Support calculating the estimated GHG emission reductions and applicable co-benefits for individual projects;
- Apply to the project types proposed for funding;
- Provide uniform methodologies that can be applied statewide and are accessible by all applicants;
- Use existing and proven tools or methodologies, where available;
- Include the expected period of time for when GHG emission reductions and co-benefits will be achieved; and
- Identify the appropriate data needed to calculate GHG emission reductions or co-benefits.

Solicitation Documents – CSD’s official procurement documents that specify requirements for compliant proposals and include details of proposal scoring.