

DOCKETED

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Notice of Availability and Summary of Staff's Review of SMUD's Revised Application (December 2019)

to Administer a Community Shared Solar System as an Alternative to the Onsite Photovoltaic Requirements for Newly Constructed Low-Rise Residential Buildings in the 2019 Building Energy Efficiency Standards Docket # 19-BSTD-08

The Sacramento Municipal Utility District's (SMUD's) revised application to administer their *Neighborhood SolarShares Program* as a community shared solar system is now available. The program is proposed to serve as an alternative approach for complying with the onsite photovoltaic (PV) system requirements in the *2019 Building Energy Efficiency Standards (2019 Energy Code)*. SMUD's application will be considered for CEC approval at the February 20, 2020, business meeting.

SMUD's application will be posted to the [CEC Docket](https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=19-BSTD-08) for review at: <https://efiling.energy.ca.gov/Lists/DocketLog.aspx?docketnumber=19-BSTD-08>. Written comments should be submitted to the docket no later than 5:00 p.m. on January 31, 2020.

Background

The 2019 Energy Code¹ allows an option for the onsite PV system requirements for a newly constructed, low-rise residential building in Part 6, § 150.1(b)1. As a compliance alternative, shares of a community shared solar system, which is approved by the CEC, can be substituted for the otherwise required onsite PV system. Part 1, § 10-115(c) of the *2019 Energy Code* states

“Community shared solar electric generation systems and/or community shared battery storage systems, which demonstrate to the Commission's satisfaction that all of the requirements specified in Section 10-115 will be met, shall be approved.”

Any entity may apply to the CEC for approval to administer a community shared solar electric generation system that meets the requirements in § 10-115. The application

¹ California Code of Regulations, Title 24, Part 1, Chapter 10, and Part 6.

must demonstrate to the CEC's satisfaction that each of the requirements specified in § 10-115(a)1-6 will be met, and shall include detailed explanations of the actions that will be taken by the applicant to ensure that each requirement is met over the period of time specified in § 10-115(a)4, for each building that uses the community shared solar electric generation system to demonstrate compliance with the *2019 Energy Code*. All applicants have the burden of proof to establish that their application should be granted.

SMUD submitted its initial application in September 2019. Staff reviewed SMUD's initial application to assess whether it met the requirements of § 10-115. Staff released a Notice of Availability and Summary of Staff's Review of SMUD's Application, concluding that the initial application met the requirements in each subsection and recommending CEC approval. After public review and written comment, the CEC considered the application at its November 13, 2019, business meeting during a 2 hour and 40 minute public discussion. Considerable stakeholder concern was raised in written comments to the docket and in person at the business meeting regarding concerns with SMUD's proposal, which go beyond the requirements in § 10-115. The CEC concluded that SMUD's application should be brought back at a subsequent business meeting for decision.

SMUD submitted a revised application in December 2019 that proposed voluntary changes to the conduct of their community solar program to respond to stakeholder concerns (see pp. 5-6 of this notice).

Summary of Staff's Review of SMUD's Revised Application

Staff has reviewed SMUD's revised application to determine whether it continues to properly address each of the following § 10-115 requirements.

Enforcement Agency. Section 10-115(a)1 establishes several requirements to ensure effective coordination with building department review and enforcement of buildings that apply for permits, using the community shared solar system as an alternative compliance approach. SMUD commits in their application to meet all of these requirements.

Energy Performance. Section 10-115(a)2 requires the community-shared solar system to be shown to provide the same or better energy performance as onsite PV systems using CEC-approved compliance software. SMUD commits in their application to demonstrate using compliance software that the Neighborhood SolarShares generation allocated to the building equals or exceeds the time dependent value energy generation determined for the otherwise required onsite PV system. SMUD also commits to working with CEC staff on modifications that will need to be made to compliance software to enable Neighborhood SolarShares to be easily and accurately modeled. SMUD also commits to working with CEC staff on modifications to compliance forms to enable energy consultants and builders to easily and effectively document the use of Neighborhood SolarShares for building department review and enforcement of 2019 Energy Code compliance. SMUD also commits to working with participating builders to

ensure that compliance simulations are completed and documented correctly to demonstrate compliance.

Dedicated Building Energy Savings Benefits. Section 10-115(a)3 requires that the community shared solar electric generation system provide energy savings benefits dedicated to the building, which are equivalent to the reductions in energy consumption that would have resulted from the otherwise required onsite PV system. These energy savings benefits, which are determined in accordance with § 10-115(a)2, are required to be uniquely dedicated to the building. The energy savings benefits allocated to the building must result in energy bill reductions in one of three ways: (1) direct reductions in the energy consumption of the building; (2) virtual reductions through energy reduction credits that appear on the bill; or (3) off-bill payments that have the same monetary effect as a direct or virtual energy bill reduction.

The final sentence of § 10-115(a)3 requires that the reduction in the building's energy bills must be greater than the added cost to the building to participate in the community shared solar system. This is a cost effectiveness requirement, which is the same as a benefit-to-cost ratio of 1.0. In other words, the community solar program cannot require a "premium" energy bill payment, compared to not participating in the program. Note that this is not a requirement that the community solar program be as cost effective as onsite solar.

SMUD will dedicate energy savings benefits to each participating building, calculated using CEC-approved compliance software in accordance with § 10-115(a)2 to be equivalent to the reductions in energy consumption that would have resulted from the otherwise required onsite PV system. The energy savings benefits allocated to the building will result in virtual energy bill reductions, consistent with § 10-115(a)3B.

SMUD will meet the cost effectiveness requirement in the last sentence of § 10-115(a)3 by guaranteeing that the energy bill reductions resulting from Neighborhood SolarShares allocated to the building will be greater than the cost for the building to participate in Neighborhood SolarShares. SMUD also will facilitate a process where participating builders can buydown a portion of the charge to participate in the Neighborhood SolarShares program to increase the net energy bill benefit beyond the guaranteed level. This builder buydown will be voluntary, with the builder determining the amount of buydown they wish to provide, if any. SMUD's participation agreement with the builder will prohibit the builder from passing on the cost of the buydown in the sales price of the building.

Durability. Section 10-115(a)4 requires that the community-shared solar system provide energy savings benefits dedicated to the building for a period of no less than 20 years. SMUD commits in their application to administration of the Neighborhood SolarShares program, providing energy savings benefits in compliance with § 10-115(a)3 that are dedicated to each participating building for 20 years, starting with the initial electric service to the participating building. Each participating builder will sign a builder agreement that binds each building, which uses the community-shared solar system to comply with the 2019 Energy Code, to participation in the program for 20 years. The

agreement requires the participating builder to include a Declaration of Covenants, Conditions, and Restrictions (Declaration of CC&Rs) in the deed transferring title for each participating building requiring the building to participate in the SolarShares program for the required duration. The Declaration of CC&Rs runs with the land for the 20-year period, starting with the electric service of the first occupant of the participating building, continuing with the electric service of all subsequent occupants throughout the 20-year period.

Additionality. Section 10-115(a)5 requires the energy savings benefits dedicated to each building to be provided exclusively to the dedicated building. Those energy savings benefits shall in no way be attributed to other purposes or transferred to other buildings or property. SMUD commits that the Neighborhood SolarShares generation allocated to each participating building will not be allocated to or used for any other purpose, including SMUD's or any other entity's Renewable Portfolio Standards (RPS) compliance, resale of Renewable Energy Credits (RECs) or renewable generation to any other person or entity, or any other mandatory or voluntary renewable electricity claim that would constitute double use.

SMUD will track and retire bundled RECs (RECs that would qualify to be considered Portfolio Content Category 1) associated with the allocated generation on behalf of the participating home in specific Western Renewable Energy Generation Information System (WREGIS) subaccounts established for the Neighborhood SolarShares Program, ensuring that the bundled RECs are used once and only once, and cannot be used for other purposes. SMUD will also cause the Neighborhood SolarShares program to be certified by the Center for Resource Solutions as meeting the applicable Green-e standard for voluntary renewable programs (or be certified by an equivalent or stronger verification protocol). Green-e certification includes annual auditing of the program to verify that Green-e requirements for resource eligibility and additionality are met. SMUD expects to subtract the Neighborhood SolarShares generation allocated to participating homes to the extent that generation meets the requirements of Public Utility Code § 399.30(c)(4) and CEC RPS regulations from SMUD's general retail sales prior to calculation of SMUD's obligation in the RPS program. Also, consistent with the California Air Resources Board's Voluntary Renewable Energy (VRE) Program rules, SMUD will have VRE carbon allowances retired on behalf of participating homes. All of these steps will ensure that GHG reductions and renewable claims are legitimate, and do not violate the § 10-115(a)5 additionality provision.

SMUD will closely track, document and ensure that the Neighborhood SolarShares dedicated to participating homes are in all cases additional during the period of time that the allocation is made to participating homes.

Accountability and Record Keeping. Section 10-115(a)6 requires that applicants for CEC approval for administration of community shared solar electric generation systems are accountable to all parties who rely on these systems as an alternative approach to compliance with the 2019 Energy Code, including but not limited to builders, building owners, enforcement agencies, and the CEC. Recordkeeping that documents ongoing compliance with each § 10-115 requirement over a 20-year period for each participating

home must be maintained. Access to these records must be provided to any entity approved by the CEC for auditing compliance with these requirements. SMUD commits in their application to meet these requirements.

Proposed Changes in SMUD's Revised Application

SMUD's revised application proposes the following changes.

- Location of solar resources. SMUD will locate all of the resources supplying the community solar program in SMUD's service territory, which makes up most of Sacramento County as well as small portions of the abutting Placer and Yolo Counties. This is consistent with the definition of "community" used by the Green Tariff Shared Renewables (GTSR) program and Enhanced Community Renewables (ECR) program, established to meet the legislative requirements of Senate Bill 43 (Wolk, Chapter 413, Statutes of 2013).
- Smaller resources. SMUD will only use solar resources that are 20 megawatt (MW) or less. This is consistent with the size requirements established by SB 43 and the *GTSR/ECR* programs. SMUD will rely on the 13 MW Wildflower resource, which is under development, after it comes online in November 2020. Wildflower will be large enough to supply SMUD's Neighborhood SolarShares program demand for many years. Prior to November 2020, SMUD will meet initial program demand by using existing 1-5 MW Feed-in-Tariff (FIT) resources. Pursuant to its Integrated Resource Plan (IRP)², SMUD will develop additional, smaller-than-20 MW solar resources to meet program demand after Wildflower becomes fully subscribed. If that development becomes delayed, SMUD would use small FIT resources to meet program demand as a last resort.
- New resources. SMUD will use newly developed solar resources for the program as indicated under the above bullet. Consistent with the *GTSR/ECR* interim pool policy, SMUD will rely on existing resources to meet program demand before the Wildflower resource comes online in November 2020. After that date, SMUD would only rely on existing FIT resources as a last resort if IRP development of solar resources becomes delayed.
- Energy bill reduction in excess of program participation costs. SMUD will double the net-of-program cost, energy bill reductions guaranteed in its initial application. This increases the guaranteed net, energy bill reduction to \$10/kW per year.
- Builder offer of onsite solar as an option to community solar. SMUD will assist participating builders to facilitate offering of either rooftop solar or community solar to prospective homebuyers. Based on discussions with builders, SMUD expects that they would make such offers up until the time that the roof is installed on the building.

² <https://efiling.energy.ca.gov/getdocument.aspx?tn=227887>

- Battery storage. SMUD clarifies that it actively encourages customers to install battery storage for load flexibility purposes. SMUD's proposed community solar program will not prevent customers from installing onsite battery storage. SMUD offers a \$2,000 incentive to newly constructed homes that install batteries. This incentive will be available for homes participating in the community solar program.

Staff Position

Nothing in SMUD's revised application invalidates staff's findings regarding SMUD's initial application. Staff concludes that SMUD's application as the administrator of their *Neighborhood SolarShares* Program, as a community shared solar electric generation system for achieving compliance with the *2019 Energy Code* meets all of the § 10-115 requirements. Staff recommends approval of SMUD's application. Approval should be contingent on SMUD working closely with CEC staff to effectively incorporate use of the *Neighborhood SolarShares* program into *2019 Energy Code* compliance software and compliance forms.

Public Comment

Written comments: Written comments should be submitted to the Docket no later than **January 31, 2020, at 5:00 p.m.** Written comments, attachments, and associated contact information (e.g., address, phone number, email address) become part of the viewable public record. This information may also become available via any Internet search engine.

The CEC encourages use of its [electronic commenting system](https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=19-BSTD-08). Visit <https://efiling.energy.ca.gov/Ecomment/Ecomment.aspx?docketnumber=19-BSTD-08> , which links to the comment page for this docket. Enter your contact information and a comment title describing the subject of your comment(s). Comments may be included in the "Comment Text" box or attached in a downloadable, searchable Microsoft® Word (.doc, .docx) or Adobe® Acrobat® (.pdf) file. Maximum file size is 10 MB.

Written comments may also be submitted by email. Include the docket number, 19-BSTD-08, and Sacramento Municipal Utility District (Smud) Application to Administer a Community Shared Solar System in the subject line, and send to docket@energy.ca.gov.

If preferred, a paper copy may be submitted to:

California Energy Commission
Docket Unit, MS-4
Re: Docket No. 19-BSTD-08
1516 Ninth Street
Sacramento, CA 95814-5512

Public Advisor and Other Commission Contacts

The CEC Public Advisor's Office provides the public assistance in participating in CEC activities. If you want information on how to participate in this forum, please contact the Public Advisor, Noemí O. Gallardo, at (916) 654-4489 or toll free at (800) 822-6228, or by email at publicadvisor@energy.ca.gov.

Please direct requests for reasonable accommodation to Yolanda Rushin at yolanda.rushin@energy.ca.gov or (916)654-4310 at least five days in advance.

Please direct all news media inquiries to the Media and Public Communications Office at (916) 654-4989, or by email at mediaoffice@energy.ca.gov.

If you have questions on the subject matter of this notice, please contact Bill Pennington at (916) 698-0604, or by email at bill.pennington@energy.ca.gov.

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