

Decision **ALTERNATE PROPOSED DECISION OF COMMISSIONER
GUZMAN ACEVES** (Mailed 2/20/2018)

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

Order Instituting Rulemaking to Develop a
Successor to Existing Net Energy Metering
Tariffs Pursuant to Public Utilities Code
Section 2827.1, and to Address Other Issues
Related to Net Energy Metering.

Rulemaking 14-07-002

**ALTERNATE DECISION ADOPTING ALTERNATIVES TO PROMOTE SOLAR
DISTRIBUTED GENERATION IN DISADVANTAGED COMMUNITIES**

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**Appendix A - Disadvantaged Communities - Single-family Solar
Homes Program**

ALTERNATE DECISION ADOPTING ALTERNATIVES TO PROMOTE SOLAR DISTRIBUTED GENERATION IN DISADVANTAGED COMMUNITIES**Summary**

This decision adopts three new programs to promote the installation of renewable generation among residential customers in disadvantaged communities (DACs), as directed by the California Legislature in Assembly Bill (AB) 327 (Perea), Stats. 2013, ch. 611. AB 327 directed the Commission to develop a standard contract or tariff applicable to customer-generators with renewable electrical generation, as a successor to then-existing Net Energy Metering tariffs, and, as a part of this mandate, required the Commission to develop specific alternatives designed to increase adoption of renewable generation in DACs.¹ In Decision (D.) 17-12-022, the Commission adopted the Solar on Multifamily Affordable Housing (SOMAH) program, which provides one avenue for certain low-income customers to access clean solar electric generation, with a special provision to increase solar installation in DACs. Along with SOMAH, the three programs adopted in this decision represent additional tools to facilitate the installation of renewable generation to differently situated customers in DACs, and are intended to provide a comparable set of renewable programs to residential low-income customers that residential general market customers can afford or access.

Two new programs adopted in this decision are modeled after existing programs that have successfully increased access to renewable generation, but the versions adopted here are targeted specifically to assist DACs. The DACs –

¹ Pub. Util. Code § 2827.1(b)(1). All further references to sections are to the Public Utilities Code, unless otherwise specified.

Single-family Solar Homes (DAC-SASH) program, modeled after the Single-family Affordable Solar Homes (SASH) Program, will provide assistance in the form of up-front financial incentives towards the installation of solar generating systems on the homes of low-income homeowners. The DAC-SASH program will be available to low-income customers who are resident-owners of single-family homes in DACs. Unlike traditional SASH, eligibility for DAC-SASH is not limited to designated affordable housing units, and so will be available to a broader group of homeowners than the current SASH program. The incentives provided through DAC-SASH will assist low-income customers in overcoming barriers to the installation of solar energy, such as a lack of up-front capital or credit needed to finance solar installation.

The DACs - Green Tariff (DAC-Green Tariff) program is modeled after the Green Tariff portion of the Green Tariff/Shared Renewables Programs adopted in D.15-01-051. The DAC-Green Tariff program, like DAC-SASH, will be available to customers who live in DACs and meet the income eligibility requirements for the California Alternate Rates for Energy (CARE) and Family Electric Rate Assistance programs. The DAC-Green Tariff will provide a 20 percent rate discount compared to their otherwise applicable tariff. This will allow customers who are not in a position to take advantage of SOMAH or DAC-SASH to choose clean energy options without the need to own their home and without the cost of installing their own distributed renewable energy generation systems. Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company will offer the DAC-Green Tariff to their customers consistent with this decision.

Under the framework created in this decision, the DAC-SASH program will be run by a single, statewide Program Administrator (PA) to be chosen by

the Commission's Energy Division from entities responding to a Request for Proposal. Once a PA is selected, the PA will submit a Tier 3 Advice Letter containing specific proposals for implementing the policies adopted here.

Both the DAC-SASH and DAC-Green Tariff programs would be funded first through GHG allowance proceeds. If such funds are exhausted, the programs would be funded through public purpose program funds.

The decision also adopts a new Community Solar program which will allow primarily low-income customers in highly disadvantaged communities to benefit from the development of solar generation projects located in their own or nearby disadvantaged communities. The program is similar to the current VNEM programs but tailored to the most disadvantaged communities in PG&E, SCE and SDG&E's territories. The Community Solar program is targeted towards homeowners with unsuitable roofs and those who rent rather than own their homes. The Community Solar program provides these low-income customers opportunities to generate their own solar power.

1. Background

1.1. Procedural Background

Assembly Bill (AB) 327 (Perea), Stats. 2013, ch. 611, directed the Commission to develop a standard contract or tariff applicable to customer-generators with renewable electrical generation, as a successor to then-existing Net Energy Metering (NEM) tariffs. As a part of this mandate, the Commission is required to develop "specific alternatives designed for growth [in adoption of

renewable generation] among residential customers in disadvantaged communities.”²

The Commission initially considered tariff options for disadvantaged communities (DACs) along with various alternatives for a NEM successor tariff for use by the other customer-generators during 2015. Specifically, Energy Division staff held a workshop on April 7, 2015, to discuss defining and developing such alternatives. Energy Division staff also prepared a staff paper dated June 3, 2015, entitled *Energy Division Staff Paper Presenting Proposals for Alternatives to the NEM Successor Tariff or Contract for Residential Customers in Disadvantaged Communities in Compliance with AB 327* (Staff Paper), which offered two proposals for alternatives to any NEM successor tariff or contract, and modeled the elements that party proposals for alternatives for DACs should include.³

In response to the June Ruling, nine parties submitted proposals that addressed alternatives for DACs (2015 Proposals).⁴ Comments on parties’ proposals were filed on September 1, 2015; reply comments were filed on

² Public Utilities Code (Pub. Util. Code) § 2827.1(b)(1). All further references to sections are to the Public Utilities Code, unless otherwise specified.

³ See June 4, 2015 Administrative Law Judge’s (ALJ) Ruling: (1) Accepting into the Record Energy Division Staff Papers on the AB 327 Successor Tariff or Contract; (2) Seeking Party Proposals for the Successor Tariff or Contract; and (3) Setting a Partial Schedule for Further Activities in this Proceeding (June Ruling).

⁴ California Environmental Justice Alliance (CEJA); GRID; Interstate Renewable Energy Council (IREC); Office of Ratepayer Advocates (ORA); Pacific Gas and Electric Company (PG&E); Southern California Edison Company (SCE); San Diego Gas & Electric Company (SDG&E); Solar Energy Industries Association (SEIA) and Vote Solar (jointly); and The Utility Reform Network (TURN).

September 15, 2015.⁵ In Decision (D.)16-01-044, the Commission adopted a NEM successor tariff (often referred to as “NEM 2.0”) for use by residential customer-generators. In that decision, the Commission deferred adoption of alternatives for DACs, along with the implementation of AB 693 (Eggman), Stats. 2015, ch. 582, creating a Multi-family Affordable Housing Solar Roofs Program, to a second phase of the proceeding to ensure full consideration of both issues.⁶

An Administrative Law Judge (ALJ) Ruling issued on March 14, 2017 (March 2017 Ruling), sought updated proposals and/or comments on alternatives for DACs. That ruling stated that proposals and comments should assume that the Commission will count the program it adopts to implement AB 693 “toward the satisfaction of the commission’s obligation to ensure . . . specific alternatives designed for growth among residential customers in disadvantaged communities. . .” (Section 2870(b)(1).), and sought proposals for alternatives for DACs that are distinct from any program implementing AB 693. In formulating these proposals, the ruling directed parties, for the purposes of DAC tariff options, to propose a DAC definition with reference to the most recent screening tool developed by the California Environmental Protection Agency (CalEPA), known as CalEnviroScreen 3.0. Parties filed proposals for

⁵ The following parties filed comments and/or reply comments: Brightline Legal Defense Fund; CEJA; Center for Sustainable Energy; Everyday Energy; Greenlining Institute (Greenlining); GRID; IREC; Local Government Sustainable Energy Coalition; MASH Coalition; Marin Clean Energy (MCE); NEM-PAC 2.0 (Inland Empire Utilities Agency, Padre Dam Municipal Water District, Rancho California Water District, Terra Verde Renewable Partners, Valley Center Municipal Water District, jointly); ORA; PG&E; SCE; SDG&E; Sierra Club; SEIA, California SEIA, The Alliance for Solar Choice (TASC) (jointly); TURN; Vote Solar.

⁶ Implementation of AB 693 was addressed in D.17-12-022.

DAC alternatives on April 24, 2017. Comments were filed on May 26, 2017 and Reply Comments were filed on June 16, 2017.⁷

On December 14, 2017, the Commission adopted the Solar on Multifamily Affordable Housing (SOMAH) program in D.17-12-022, pursuant to the direction of AB 693, and found that SOMAH installations should be counted towards the Commission's obligation to encourage installation of renewables in DACs. This decision adopts additional mechanisms for encouraging growth of renewable distributed generation in DACs. Previous Programs to Promote Solar Development in Low-income Communities

California has a long history of supporting the adoption of solar generation in low-income and DACs. Specifically, the Multifamily Affordable Solar Housing (MASH) and Single-family Affordable Solar Homes (SASH) programs originated under the California Solar Initiative (CSI) more than a decade ago. These programs were created in compliance with the direction in AB 2723 (Pavley) Stats. 2006, ch. 864, which required the Commission to ensure that not less than 10 percent of overall CSI funds be used for installation of solar energy systems on "low-income residential housing," as defined in the bill. In 2007 and 2008, the Commission adopted programs implementing this requirement. Specifically, in D.07-11-045, the Commission adopted the SASH

⁷ Proposals/Responses to ALJ Ruling were filed by: California Environmental Justice Advocates (CEJA)/Sustainable Economies Law Center (SELC), GRID, IREC, Joint Solar Parties (SEIA, CALSEIA, VoteSolar), MASH Coalition, ORA, PG&E, SCE, SDG&E, TURN.

Comments were filed by: CEJA, CSE, Greenlining, GRID, IREC, Joint Solar Parties, Lancaster CCA, MASH Coalition, Marin Clean Energy (MCE), PG&E, ORA, SCE, TASC, TURN.

Reply Comments were filed by: CEJA, California Housing Partnership Coalition (CHPC), California Union Employees (CUE), IREC, Joint Solar Parties, MASH Coalition, ORA, Peninsula Clean Energy (PCE), PG&E, SCE, SDG&E.

program for qualifying low-income single-family homeowners, and in D.08-10-036, the Commission adopted the MASH program to provide incentives for solar installations on multifamily affordable housing.

In 2013, the Legislature passed AB 217 (Bradford), Stats. 2013, ch. 609, which authorized \$108 million in new funding for MASH and SASH; set a goal of 50 megawatts (MW) of installed capacity across both programs; and extended both programs until 2021, or the exhaustion of the new funding, whichever occurs first. Pursuant to this legislation, the Commission reauthorized both programs in D.15-01-027, which also made changes to program administration and eligibility requirements. Both programs have been evaluated by Navigant Consulting, most recently in a Market and Program Administrator Assessment of the 2011-2013 program years, completed in early 2016.

The MASH program is essentially closed to new applications at this time because all funds allocated to that program have been reserved for projects, with additional unfunded projects remaining on the program's waitlists in each utility territory. In D.17-12-022, the Commission adopted a new program, SOMAH, which serves a similar market segment to MASH, with a focus on multi-family affordable housing. The Commission developed SOMAH in part to satisfy the AB 327 requirements to promote development of on-site renewable generation in DACs, as multifamily affordable housing properties in DACs may qualify for SOMAH even if properties do not meet all tenant income requirements for eligibility.

The SASH program serves single-family units inhabited by low-income residents of PG&E, SDG&E, and SCE, and is run by a single state-wide administrator, the non-profit GRID Alternatives (GRID). Unlike MASH, SASH

has funding remaining, and is expected to continue operating through the program's statutory sunset date of 2021.

2. Goals for Programs Benefitting DACS

In this decision, we consider the creation or augmentation of several programs intended to benefit customers in DACs, with a particular focus on low-income residential customers within those communities. As noted above, we are guided by Pub. Util. Code § 2827.1(b)(1), which requires the Commission to:

Ensure that the standard contract or tariff made available to eligible customer-generators ensures that customer-sited renewable distributed generation continues to grow sustainably and include specific alternatives designed for growth among residential customers in disadvantaged communities.

Our intent in adopting the programs set forth in this decision is to ensure that low-income households in DACs have similar opportunities as other households to access clean and innovative energy offerings.

In parties' initial comments and proposals on options for promoting use of solar generation in DACs, parties agreed that the plan for alternatives for growth in DACs should not be embodied in the NEM successor tariff itself. In AB 327, the Legislature determined that there is a need for additional attention to alternatives for expanding accessibility of solar generation in DACs that was not served through the original NEM tariff itself. It is reasonable to conclude that the incentives provided by the original NEM tariffs, including compensation at the full retail rate for exported energy and exemption from all charges imposed on other residential customers, was not sufficient. The successor to the original NEM tariff adopted in D.16-01-044 shares many features with the original NEM

tariff, and similarly was not designed to address the specific barriers to adoption experienced in DACs. For this reason, the alternatives for growth must be found outside the successor tariff itself. As noted in D.16-01-044,⁸ parties argue, and we find, that the statutory criteria for the successor tariff, such as the requirement to ensure that the total costs are approximately equivalent to total benefits,⁹ should not be applied in the development of alternatives for DACs.¹⁰ Because this program serves multiple state policy goals, and is intended as an equity program to allow low-income customers and those in DACs to access solar distributed generation and clean energy on the same basis as other residential customers, we find that it is appropriate not to apply this constraint to DAC programs.¹¹ Instead, the options adopted here should directly address the specific barriers to solar adoption experienced in DACs.

To develop programs responsive to this guidance, we must ensure that the programs address the specific obstacles to the development of renewable generation in DACs. Several of these obstacles are identified in the staff paper attached to the Administrative Law Judge's June 24, 2015 ruling requesting comments on alternatives for DACs,¹² and in the California Energy

⁸ D.16-01-044, Footnote 62, at 50-51. Most parties reiterate their support of this conclusion in comments filed in response to the March 2017 Ruling.

⁹ Cite D.16-01-044.

¹⁰ Considering how to ensure continuing growth, the fundamental task of the successor tariff and the alternatives, should be addressed as discussed in Section 2.17.3.

¹¹ See, for example, MASH Coalition Comments filed April 24, 2017 at 7-8, GRID Comments filed April 24, 2017, at 38-39.

¹² *Energy Division Staff Paper Presenting Proposals for Alternatives to the NEM Successor Tariff or Contract for Residential Customers in Disadvantaged Communities in Compliance with AB 327 (Staff Paper)*, Attached to ALJ Ruling dated June 4, 2015.

Commission's *Low-Income Barriers Study, Part A: Overcoming Barriers to Energy Efficiency and Renewables for Low-Income Customers and Small Business Contracting Opportunities in Disadvantaged Communities* (Barriers Report).¹³ The barriers study outlines an array of distinct challenges facing customers within low-income and DACs to accessing solar photovoltaic energy generation as well as other renewable energy, including low home ownership rates, insufficient access to capital, building age, and remote or underserved communities. The program options identified in this decision are intended to address many of these barriers.

2.1. Adoption of Multiple Program and Tariff options

Some parties favor the creation or augmentation of one program or another to the exclusion of others. For example, SCE believes a discounted GTSR program is a more cost-effective solution than SASH augmentation for immediately addressing barriers to access to clean energy sources by customers in DACs. Similarly, TURN contends that its proposed Renewable Energy for All program is a more targeted and better way than VNM to achieve the mandate of § 2827.1(b)(1) and increase access for those who have traditionally faced barriers to renewable distributed generation adoption. The MASH Coalition favors Community Solar or SASH proposals because it asserts that GTSR programs are not community-based.

By contrast, other parties such as Greenlining urge the Commission to adopt multiple programs to address the diverse barriers to solar adoption by customers in low-income and DACs. We find that it is appropriate to adopt

¹³ *Low-Income Barriers Study, Part A: Overcoming Barriers to Energy Efficiency and Renewables for Low-Income Customers and Small Business Contracting Opportunities in Disadvantaged Communities*, California Energy Commission, December 2016.

multiple program options for the households we target here in order to ensure that low-income households in DACs have similar opportunities as other households to access clean and innovative energy offerings. In addition, multiple programs will address the variety of barriers facing low-income residents in DACs. Different groups have different needs and may find different options to be appealing; in addition, different types of customers may have different barriers to their use of renewable energy. There is significant variation in housing types for low-income households; some live in multi-family housing, some own their homes, some are renters in single-family homes. Households also face different financial situations, have different expected lengths of residence in their homes, and have different priorities (*e.g.*, some may care more about local siting and ownership of green resources than others). Today's decision is intended to reach out to different communities than previous decisions related to solar and distributed generation options.

In addition, there is value in having a diverse set of new clean energy programs specifically tailored for disadvantaged communities because we are uncertain which programs will ultimately be successful. By developing three different models (along with other programs such as the recently-adopted SOMAH program), we will find out what works well, what needs modification, and if any should be discontinued. To this end, Energy Division will monitor and evaluate each program as it is implemented.

3. Definition of Disadvantaged Communities

Section 2827.1 does not provide a definition of "disadvantaged communities." The Commission does not, however, need to create a definition from scratch. In Health and Safety (H&S) Code Section 39711, the Legislature

created a process for identifying DACs for purposes of investment of funds from the Greenhouse Gas (GHG) Reduction Fund.

The California Environmental Protection Agency (CalEPA) has implemented the legislative instruction by using a screening tool created in partnership with the Office of Environmental Health Hazard Assessment (OEHHA), called CalEnviroScreen; the current version of CalEnviroScreen is CalEnviroScreen 3.0.¹⁴ CalEPA and the California Air Resources Board (CARB) have used CalEnviroScreen to fulfill the legislative requirement of identifying DACs for purposes of distribution of certain funds from the Greenhouse Gas Reduction Fund. The agencies concluded that a “disadvantaged community” is a community that appears among the top 25 percent of census tracts identified by CalEnviroScreen 3.0 statewide.¹⁵

The *Staff Disadvantaged Communities Paper* recommended the use of the predecessor tool, CalEnviroScreen 2.0, and the CalEPA/CARB result for characterizing DACs for purposes of the programs related to the NEM successor tariff. Specifically, staff recommended using the “top 25 percent of communities statewide identified by CalEnviroScreen 2.0” metric used by CalEPA and CARB. In the March 2017 Ruling requesting updated proposals, parties were asked to use the results of the current tool, CalEnviroScreen 3.0, in their analysis. CalEPA has stated its commitment to regularly revising the CalEnviroScreen tool with updated information and data.¹⁶ We find that in the event the CalEnviroScreen

¹⁴ The tool may be found at: <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-30>.

¹⁵ See <https://oehha.ca.gov/calenviroscreen/sb535>

¹⁶ California Communities Environmental Health Screening Tool, Version 2.0 Report, October 2014, at i: <http://oehha.ca.gov/ej/pdf/CES20FinalReportUpdateOct2014.pdf>.

methodology is updated again in the future, the revised version of CalEnviroScreen should be used for the purposes of ongoing identification of DACs.¹⁷

Parties proposed several different ways in which the CalEnviroScreen tool can be used to identify DACs. The two most common eligibility recommendations are to use the top 25 percent of DACs statewide as identified in the current CalEnviroScreen tool, or to define eligible communities as the top 25 percent of DACs within each participating utility's territory. In the March 14, 2017 ALJ Ruling, parties were asked:

How should a disadvantaged community be defined for purposes of implementing the mandate of alternatives for growth among residential customers in disadvantaged communities set out in Section 2827.1(b)(1)?
and:

How should this definition be implemented by the Commission in designing alternatives for DACs?

PG&E and SDG&E recommend use of the top 25 percent of the most disadvantaged census tracts in their territory per the CalEnviro Screen 3.0 tool for this proceeding, while SCE would target the top 5 percent.

¹⁷ In its "Designation of Disadvantaged Communities Pursuant to Senate Bill 535 (De León)," CalEPA states that it "will work with local and regional jurisdictions to review our data and verify results. If recalculation of a community's CalEnviroScreen2.0 score shows that it should have been identified as a disadvantaged community, we will add that community to the list for this designation. And we will not remove a community from the list for the current designation if recalculation of their CalEnviroScreen 2.0 score shows that they were incorrectly identified as a disadvantaged community. Accordingly, any changes to the current version of CalEnviroScreen 2.0 will have no bearing on funding decisions already in process." California Environmental Protection Agency, "Designation of Disadvantaged Communities Pursuant to Senate Bill 535 (De León), October 2014 at 15:
<http://www.calepa.ca.gov/EnvJustice/GHGInvest/Documents/SB535DesCom.pdf>.

CEJA recommends, in agreement with the Joint Solar Parties, that the Commission apply the same methodology that it applied in its Electric Vehicle pilot decisions; that is, communities in the CalEnviroScreen top 25 percent of census tracts on either a state-wide or a utility-wide basis – whichever is broader. CEJA also recommends including program eligibility for low-income households in a half-mile radius around all qualifying census tracts.

TURN recommends that the Commission identify DACs as the top 20 percent of impacted census tracts on a service territory-specific basis. This definition accounts for the complications of identifying communities on a statewide basis, while also seeking to limit eligibility to the most DACs so the programs are sustainable. TURN notes that this is the same definition used for the existing GTSR program's Environmental Justice component.

ORA recommends the Commission maintain consistency across different proceedings and programs by using the CalEPA's CalEnviroScreen tool to define DACs while supplementing eligibility criteria to include low-income individuals or buildings regardless of their location.

GRID proposes that a disadvantaged community (DAC) be defined as one of the following (a household would qualify if it is located in *either* 1 or 2):

1. A Health and Safety Code Section 39711-compliant community as identified by the CalEnviroScreen, using the framework established in the Electric Vehicle proceedings of top 25 percent of census tracts in each IOU or statewide, whichever is broader.
2. Pub. Util. Code §2852(3)(A)(i)(ii)(B)(i)(ii)(C)-compliant affordable housing (P.U. Code §2852-compliant).

Several parties express concern that relying on CalEnviroScreen alone to define DACs would exclude some rural communities with high poverty and pollution.¹⁸ GRID specifically notes that “many rural communities and all tribal reservations north of San Francisco and rural, coastal communities from Monterey to Los Angeles” are not included in the top 25 percent of communities identified by CalEnviroScreen 2.0 statewide.¹⁹

Although many of the parties’ suggestions have some merit, the best choice here is the simplest, which is the definition included in AB 693 and already adopted for SOMAH. We define a “disadvantaged community” for the purpose of the options adopted in this decision as a community that is identified, by using CalEnviroScreen 3.0, as among the top 25 percent of communities statewide. In addition, 22 census tracts in the highest 5 percent of CalEnviroScreen’s Pollution Burden, but that do not have an overall CalEnviroScreen score because of unreliable socioeconomic or health data, are also designated as DACs. This is the method developed and used by CalEPA and CARB, the agencies with expertise in this area, and it is reasonable for the Commission to use this definition to identify DACs to be served with the programs developed pursuant to Section 2827.1(b)(1).

Although the Legislature did not specifically cite to Code § 39711 in AB 327, as it did in AB 693, it is clear that the concept of “disadvantaged communities” as articulated in H&S Code § 39711 and implemented by CalEPA

¹⁸ Brightline/SALEF, GRID, Greenlining, IREC, and SEIA/Vote Solar, are in this group.

¹⁹ GRID Proposal at 10.

has become the standard for use by state agencies.²⁰ In this context, SDG&E's suggestion to use the top 20 percent of communities in each IOU service territory identified by CalEnviroScreen is not appropriate, despite its origin in the Commission's decision in D.15-01-051. That decision set the framework for the green tariff/shared renewables (GTSR) program mandated by Sections 2831-2834. In D.15-01-051, the Commission was implementing a statutory directive to, among other things, reserve 100 MW of the mandated generating facilities for "the most impacted 20 percent" of communities. The Commission, for the sake of consistency among the various elements of the GTSR program, adopted the metric of "top 20 percent in each IOU service territory" to identify the relevant communities. This statute-specific metric should not be used in place of the more general, and more widely used, "top 25 percent under CalEnviroScreen" identification the Commission adopts for purposes of compliance with Section 2827.1(b)(1). In addition, as for the SOMAH Program, it is appropriate to include 22 census tracts in the highest 5 percent of CalEnviroScreen's Pollution Burden, but that do not have an overall CalEnviroScreen score because of unreliable socioeconomic or health data, as DACs for the purposes of this decision.²¹

²⁰ See, for a recent example, new Section 454.52(a)(1)(H), added by SB 350, directing the development of integrated resource plans that, among other things:

Minimize localized air pollutants and other greenhouse gas emissions, with early priority on disadvantaged communities identified pursuant to Section 39711 of the Health and Safety Code.

²¹ EPS report: Designation Of Disadvantaged Communities Pursuant To Senate Bill 535 (De León), April 2017 at 2. See <https://calepa.ca.gov/wp-content/uploads/sites/34/2017/04/SB-535-Designation-Final.pdf>.

As discussed in Section 7, we target the new Community Solar program to the top 5% of communities per CalEnviroScreen, while allowing the projects themselves to be located in either the same communities or top 25% communities within 5 miles of the benefitting customers' community.

4. Targeted Customer Groups

ORA and TURN advocate that the Commission ensure that the disadvantaged community proposals be directed to provide benefits only to low-income customers. Both note that PG&E provided data that demonstrated that non-low income customers in its service territory adopted solar at similar rates, whether they were located within DACs (7.4 percent) or outside of DACs (7.3 percent), whereas low income customers lagged behind in adopting solar, both within DACs (2.4 percent) and outside of DACs (2.0 percent).²² In PG&E's service territory, low-income customers located both within and outside of DACs have low adoption rates for solar. PG&E's data shows that the percentage of solar adoption in DACs is 5.0%, compared to 6.2% in non-DACs, and that only 8.7% of solar adoption in its territory is by CARE customers.²³ Also, low-income customers accounted for almost half of the customers in DACs and 18 percent of customers in non-DACs. Based on this, it appears that there is a high concentration of low-income customers within DACs with low rates of adoption of renewable distributed generation.²⁴

²² ORA Reply Comments on DAC Proposals, June 24, 2017 at 2.

²³ PG&E Comments in Response to Questions in ALJ ruling, April 24, 2017 in Table 1 at 2.

²⁴ TURN comments on DAC Proposals, May 26, 2017 at 12-13.

Our purpose in this decision is to implement statutory direction to provide enhanced clean energy options in DACs. While AB 327 does not give specific direction regarding whether or not only low-income households in DACs should be the target of these programs, we find that low-income customers currently experience the most barriers to solar adoption, and it is reasonable to target our efforts at this demographic group.

However, in making this choice, it is important to note that the Legislature used the term “disadvantaged communities,” not “low-income individuals.” CEJA points out that AB 327 uses both “disadvantaged communities” and “low-income” to refer to particular groups of customers and argues that the Legislature clearly intended to distinguish between the terms. Those proposals that seek to refocus on low-income individuals, or add criteria in order to allow low-income individuals not living in DACs to participate, miss the mark. While there may be value in other contexts to the definitional suggestions made by some parties, this legislation is about “residential customers in disadvantaged communities.”

ORA also recommends that the Commission should expand eligibility for the alternative programs or tariffs in this decision to low-income customers who are located outside the DAC census tracts identified by the CES tool. AB 327 is specific in directing us to develop programs for DACs. Therefore we limit the applicability of the programs adopted in this decision to such areas.

As noted in the descriptions of our policies below, we wish to target different populations, which may have different barriers to use of clean energy, with different programs. Therefore, we adopt here options that provide the benefits of renewable distributed generation to a variety of customers residing in DACs. One program adopted here and described in Section 5.4, below,

specifically focuses on low-income households living in owner-occupied, single-family homes. We believe that this, along with the SOMAH program adopted in D.17-12-022, which is focused on multifamily affordable housing and offers a DAC eligibility option, will address some of the barriers specific to low-income customers. Those include economic barriers such as insufficient access to capital and credit as well as marketing, outreach and linguistic barriers. The other option adopted here, an expanded GTSR tariff, will be more broadly available to residential customers in DACs, and will focus more on increasing the general availability of solar generation in these communities. This program will address property structure and property ownership barriers. In the discussion of specific programs in this decision we provide additional direction for participation in each particular program.

5. Proposals based on the Single-family Affordable Solar Homes (SASH)

Several parties recommended that the Commission adopt a variation or extension of the California Solar Initiative's (CSI) SASH Program. The goals of the SASH program²⁵ are to:

- Decrease electricity usage by solar installation and reduce energy bills without increasing monthly expenses;
- Provide full and partial incentives for solar systems for low-income participants;
- Offer the power of solar and energy efficiency to homeowners;
- Decrease the expense of solar ownership with a higher incentive than the General CSI Program;

²⁵ See CPUC Website page titled "CSI SASH Program" at <http://www.cpuc.ca.gov/general.aspx?id=3043>.

- Develop energy solutions that are environmentally and economically sustainable; and
- Provide job training and employment opportunities in the solar energy and energy efficiency sectors of the economy.

The SASH program, implemented in 2008, provides qualified low-income homeowners fixed, up front, capacity-based incentives to help offset the upfront cost of a solar electric system. Participation in the SASH program is currently available to PG&E, SCE and SDG&E customers with a household income that is 80 percent or below the area median income (AMI) and who own and live in a single family home defined as “affordable housing” under Pub. Util. Code § 2852. In D.07-11-045, the Commission determined that a single statewide Program Administrator should manage the SASH program across the three utility service territories and that a competitive solicitation should be conducted to fill this role.

AB 217 (Bradford, 2013), augmented the original funding and extended the program through 2021. In addition, this legislation adopted additional program requirements for both MASH and SASH. Specifically, the legislation directed that the Commission must ensure that the SASH program does the following:

1. Maximizes the overall benefit to ratepayers from the programs;
2. Requires participants who receive incentives to enroll in the Energy Savings Assistance Program if eligible; and
3. Provides job training and employment opportunities in the solar energy and energy efficiency sectors of the economy.²⁶

²⁶ Section 2852(d).

D.15-01-027 updated MASH and SASH program requirements consistent with AB 217. This decision added \$54 million to the SASH budget, and reduced incentive levels under the SASH program by half, from \$6.00/watt to \$3.00/watt. The current SASH program couples the program's incentive dollars (\$7 million to \$9 million each year) with GRID's contributions (~\$4M-\$5M/year) from philanthropic fundraising, proceeds from the third-party ownership (TPO) model, equipment donations, and other resources to result in roughly 1,000 annual projects without relying on a financial contribution or ongoing financial obligation from the participating households. Based on a consensus of the parties reflected in the record of the rulemaking, D.15-01-027 directed SCE to renew its contract with GRID for continued administration of the SASH program through 2021, the end of the AB 217 program extension. The SASH program is currently funded through 2021, or until funding is exhausted. In addition, D.15-01-027 requires SASH and MASH installers to provide job training and employment opportunities.

5.1. TURN SASH Proposal

TURN proposes to allocate an additional \$10 million per year to the SASH program for units located in DACs through 2021 (the current sunset date for SASH funding), and to expand the SASH program eligibility to include owner occupied single-family housing units in DACs whose residents meet the income eligibility criteria used for CARE and the Family Electric Rate Assistance (FERA) program.

Citing the California Distributed Generation Statistics²⁷ for 2016, TURN suggests that the cost for a system sized under 10 kilowatts (KW) was \$4.83 per watt. With this in mind, TURN contends the current SASH incentive level of \$3 per watt is sufficient to motivate participation by covering the majority of system costs and ensuring that participants will receive bill savings from the installation of a renewable distributed generation system. As a result, TURN suggests that the existing \$3.00 per watt incentive should be applied to the expanded version of SASH within DACs.

In addition, TURN describes the current SASH program's third party ownership (TPO) option, which increases access to participation by low-income individuals. TURN proposes that the SASH TPO option should be available to DAC participants because access to capital for the upfront costs of owning or leasing a system is one of the key barriers to adoption of NEM in DACs. TURN notes that, according to the January 2017 edition of the SASH Semi-Annual Progress Report, a majority of the SASH projects installed in 2015 and 2016 are third-party owned and "it is expected that the TPO model will continue to be a significant contributor to financing SASH projects." Under the SASH third party ownership model, GRID partners with Spruce Finance or Sunrun (the "TPO Partner"), which then acts as the underwriting agent for each project.

Resolution E-4829 explains how the TPO model works:

The SASH host customer and the TPO Partner execute a 20-year PPA [power purchase agreement] and GRID pays the system owner all PPA costs upfront on the SASH host customer's behalf (Prepaid PPA). Once the SASH host customer begins realizing bill savings, that customer is asked

²⁷ <https://www.californiadgstats.ca.gov>.

to make a voluntary, quarterly financial contribution to GRID for the 20-year term of the PPA that cannot exceed more than 50 percent of the customer's bill savings (Client Contribution). GRID treats the Client Contribution as voluntary and there is no penalty for non-payment.

To fund this SASH expansion, TURN recommends the additional funds proposed for the SASH program be treated as CARE program expenses and funded through the Public Purpose Program charge. TURN suggests that, because the NEM DAC alternative is a public purpose program and will primarily benefit low-income ratepayers, it is appropriate to treat funding associated with this program as a CARE expense.

5.2. GRID SASH Proposal

GRID is a non-profit, direct service organization that works with low-income families and affordable housing owners to provide access to solar distributed energy generation. In California, GRID serves as the statewide program administrator for the state's two dedicated low-income solar programs for single-family households: SASH and the Low-Income Weatherization Program. GRID was awarded the contract to administer SASH through a competitive bidding process at the time of the program's implementation.

GRID argues that funding augmentation is needed now exclusively on the single-family SASH program side, rather than on both the multi-family MASH program side and the SASH program side, because AB 693 identified a funding source for up-front rebates for solar projects benefitting tenants in dedicated affordable multi-family housing, and set a long-term time horizon until 2030 for these investments. GRID recommends extending the SASH program to 2030 from its current statutory end date in 2021, and augmenting the SASH budget to

increase penetration levels beyond the current implementation plan's strategy of approximately three MW per year.

GRID recommends retaining the current SASH eligibility criteria, which would result in additional incentives becoming available to households with incomes at or below 80 percent of area median income living in owner-occupied homes that meet the definition of affordable housing codified in Pub. Util. Code § 2852(3)(C) within the territories of PG&E, SCE, and SDG&E.

5.3. Intervenor Comments on SASH Proposals

In comments filed on parties' 2017 proposals, GRID expresses support for TURN's SASH proposal with some revisions. GRID notes that \$10 million per year increase in the SASH budget would essentially double the current annual funding allocation for SASH, potentially doubling the capacity installed through the program, as well as job training workdays created and other positive effects of the program. In addition, based on its experience working with low-income families and observing the persistent issues with creditworthiness, access to credit and capital, and structural barriers, GRID suggests that low-income households will continue to require a financial incentive to access rooftop solar after the current program sunset in 2021. For administrative reasons including efficiency and standardization, GRID recommends maintaining all existing eligibility and qualifying requirements of the program in this recommended extension through 2030. GRID also notes that current SASH eligibility requirements are statutory requirements set by the Legislature when it adopted Section 2852 in 2007, and they were maintained when the program was extended by statute in 2013.

MASH Coalition agrees with TURN and GRID that the expansion of SASH is an appropriate mechanism to promote the use of customer-sited solar

generation for DACs. CSE, IREC, and TASC similarly support proposals to extend the SASH program to reach low-income single-family homes in DACs.

CEJA/SELC note that the SASH program as it currently exists would not result in significant growth in DACs because it is limited to deed-restricted single-family housing. CEJA/SELC support TURN's extension proposal, with minor modifications, because it is feasible without legislative action, broader than the existing SASH program, and therefore more likely to result in growth in DACs in single-family homes that are suitable for rooftop solar. CEJA/SELC advocate that the definition of DACs for the purposes of a SASH extension include low-income households within a half mile radius of CalEnviroScreen3.0 top 25 percent census tracts. TASC and Peninsula Clean Energy also agree with TURN that the SASH program should be expanded to all CARE customers.

In comments on the DAC proposals, Greenlining supports including SASH as part of a suite of options for DACs. Greenlining finds the eligibility criteria of low-income owner-occupied compliant affordable single-family homes for expanded SASH consistent with the purpose of this program. Greenlining recognizes these criteria limit the number of residents in DACs eligible to participate. However, Greenlining asserts that a SASH expansion could be one in a set of alternatives that together serve a broader set of subpopulations.

In contrast to the non-profit and consumer representative parties described above, SCE believes SASH may not be the most effective way to address the immediate needs of DACs. Because SASH provides upfront incentives to customers who purchase solar distributed generation systems for their own homes, a SASH expansion would only benefit a limited set of customers in DACs. SCE contends that SASH inherently excludes many low-income

households that the statutory mandate for DAC alternatives to the NEM tariff are designed to reach, and that other proposals could reach, such as renters in multi-unit dwellings. SCE asserts that SASH is relatively higher in cost, as compared to proposals that leverage the Green Tariff/Shared Renewables Program. As a result, SCE believes a discounted GTSR program is a more cost-effective solution for immediately addressing DAC barriers.

Joint Solar Parties support a SASH expansion as one among a set of alternatives that may be approved in this proceeding. At the same time, the Joint Solar Parties suggest that there may be concerns about allowing SASH-funded solar arrays to be installed on homes that are not deed-restricted affordable housing. Specifically, the Joint Solar Parties note that if the original CARE or FERA-eligible customer moved out of the home, someone who does not qualify as low-income could move in and benefit from the majority of the bill savings flowing from that solar array. To address this issue, the Joint Solar Parties suggest that TURN's proposal could be modified to fund solely installations for CARE or FERA-eligible customers who live in deed-restricted affordable housing in the participating companies' territories.

5.4. Adoption of a DAC Single-family Solar Homes Program

Financial barriers, including the lack of capital for an initial down-payment or lack of access to credit pose a significant barrier to solar adoption for low-income households in DACs. The Staff Paper and California Energy Commission *Low-Income Barriers* report detail these financial barriers to

solar adoption by low-income households, such as lack of access to capital or credit, or the inability to assume more debt.²⁸

Low-income customers, whether or not they are located in DACs, often lack the upfront capital to purchase a customer-sited solar system outright. Even if a low-income family has capital available, adopting solar may be challenging if there are additional costs that cannot be financed, such as required roof repair or replacement or an electrical service upgrade. Low-income families and residents of DACs may be likely to experience these problems if they own an older home or lack the resources maintain or repair their homes. Low-income customers may have low to no tax liability, further impeding their ability to access Federal tax benefits. Loans, solar power purchase agreements, or solar leases are offered to general market customers as a standard option, along with purchasing a system outright. However, low-income customers in DACs are unlikely to have access to the credit needed to qualify for these options. Moreover, even if low-income customers qualify for a credit-based product, it can be unclear whether the family would receive long-term benefits. The SASH program is structured to overcome financial barriers for this customer segment, and allow for low-income households to participate and receive significant economic benefits.

Most parties agree that a SASH-like program would be a useful tool for overcoming barriers such as access to renewable distributed generation among a certain set of residents (low-income resident owners of single-family homes) in DACs. While there is merit to SCE's point that there may be a more

²⁸ "SB 350 Low-Income Barriers Study, Part A - Commission Final Report", December 5, 2016 at 35-37.

cost-effective solution for immediately addressing DAC barriers, we find that it is reasonable to provide a variety of options for low-income households, similar to the set of options already available to other customers. SASH provides a proven and successful model for expanding access to solar among low-income customers and for providing additional, non-energy benefits, such as job training. As TURN points out, the significant upfront incentives provided by the SASH expansion may be expected to effectively encourage growth in the adoption of renewable distributed generation in DACs by addressing the upfront costs of purchasing and installing a renewable distributed generation system.

TURN suggests that a budget increase of \$10 million per year in funding for SASH would make a meaningful contribution in promoting installation of solar distributed generation. GRID states that the current \$7 million to \$9 million annual SASH program budget, augmented by GRID's own fundraising efforts of approximately \$4 million per year, results in about 1,000 annual projects without a financial obligation from the participating households. GRID contends that these levels could easily be tripled with proportional funding increases.

We agree that it is reasonable to adopt a variation of TURN's SASH augmentation proposal, with several modifications discussed here. Because the SASH budget and eligibility requirements are established in state statute, however, it would not be appropriate to merely extend the SASH program by augmenting its budget or broadening its eligibility requirements. Instead, we adopt a new program that is similar in structure to SASH, but is better targeted to residents of DACs, and is not limited by the SASH statutory eligibility limits. In addition, TURN's proposal does not fully address the statutory sunset of SASH in 2021. By creating a separate but similarly structured program, we are able to continue a SASH-like program targeted to DACs through 2030,

comparable to the recently-adopted SOMAH program, which serves low-income multifamily affordable housing statewide and has special eligibility criteria for DACs.

Given the direction in Section § 2827.1(b)(1) to expand growth of solar distributed generation in DACs, and the fact that many affordable housing units in DACs are already eligible for the SASH program, we see no clear rationale for limiting eligibility to affordable housing units. Our objective is to expand clean energy options for low-income households in DACs, and applying the affordable housing limitation to this new program would not increase the number of homes eligible for assistance, even if TURN's recommended budget augmentation would increase the number of homes that could be served in a given year. For these reasons, we adopt a new Single-family Solar Homes program for DACs, to be called the DACs – Single-family Solar Homes program (DAC-SASH). The structure and administration of this program, along with the program incentive levels and authorization for the use of third-party ownership projects when they are determined to be cost effective, will be modeled after the existing SASH program. A summary of the DAC-SASH program elements are set forth in Appendix A. All SASH program rules not specifically changed in this decision or Appendix A shall apply to the DAC-SASH program. Low-income customers of PG&E, SCE, and SDG&E are eligible for DAC-SASH if they own and occupy single-family homes in DACs as defined in this Decision and meet the eligibility requirements of CARE or FERA. Because DAC-SASH provides a long-lasting capital improvement to properties, households must undergo an income verification process in order to qualify for DAC-SASH. As a result, enrollment in CARE or FERA, which do not require an income verifications process, is not on its own sufficient to qualify a household to participate in DAC-SASH.

The CARE and FERA income eligibility requirements, in general, are more restrictive than the income requirements for SASH, which allows for participation of households with incomes up to 80 percent of area median income. Because this program allows for participation of homes that are not deed-restricted, however, we believe that the lower income eligibility requirement is appropriate to ensure that program resources are used to benefit households with the most need of assistance.

5.4.1. DAC-SASH Funding

As recommended by TURN, the DAC-SASH program will have an annual budget of \$10 million per year beginning on January 1, 2019, and continuing through the end of 2030. As discussed further in Section 6, several parties recommend funding for NEM DAC alternatives from GHG allowance proceeds. For example, SDG&E's preferred method of cost recovery for the SolarAll Program is to record and recover the costs from Cap and Trade GHG funds, for as long as those funds are available. However, SDG&E acknowledges that it is not clear the extent to which those funds will be available after the implementation of AB 693. Similarly, TURN proposes funding for its proposed Renewable Energy for All Program would come from a portion of greenhouse gas allowance revenues. While SDG&E's proposed SolarAll Program and TURN's proposed Renewable Energy for All Program are not directly related to the DAC-SASH program we adopt (they are GTSR-related programs), it is notable that SDG&E and TURN both support using GHG allowance proceeds for a NEM DAC program as considered in this decision.

TURN and others also recommend funding for the DAC-SASH program from the public purpose program charge. There are reasonable arguments for using both GHG allowance proceeds and public purpose program funds for

DAC-SASH. Because all customers benefit from increasing the use of clean energy and the associated environmental benefits in disadvantaged communities, it is appropriate that all customers should contribute the costs of such programs. In both the cases of GHG allowance proceeds and public purpose program funds, the costs are borne by all residential customers, although in different ways; the main difference for the purposes here is that there may be a limitation on the total funds available from GHG allowance proceeds. Therefore, we will require that the DAC-SASH program first be funded through available GHG allowance proceeds. If such funds are exhausted, the DAC-SASH program should be funded through public purpose program funds.

Within 60 days of the effective date of this decision, the three participating companies shall file Tier 1 Advice Letters to create memorandum accounts to track the start-up costs for the DAC-SASH program. The Commission will review these start-up costs in the companies' next Energy Resource Recovery Account (ERRA) proceedings. In addition, PG&E, SCE, and SDG&E will establish balancing accounts to collect the \$10 million per year DAC-SASH budget starting in 2019, and will address those costs in their annual ERRA filings where they should propose a mechanism to recover the costs through distribution rates. Money not allocated to specific projects or program expenses by the program end date of December 31, 2030, will be returned to ratepayers at the conclusion of the program.

5.4.1. DAC-SASH Exemption from Mandatory Time-of-Use Rates

In D.17-12-022, our recent decision adopting a new Solar on Multi-family Affordable Housing (SOMAH) Program, we exempted tenants participating in SOMAH from the requirement that applies to other customers using the NEM

successor tariff to take service under a time-of-use (TOU) rate. We found this approach reasonable in part to ensure that tenants are protected from higher rates as a result of being a part of the program. We find that a similar logic applies for the DAC-SASH customers. As a result, we exempt DAC-SASH participants from the mandatory TOU requirement applicable to customers on the NEM successor tariff adopted in D.16-01-044, however, participating customers will still default to TOU rates when such are implemented for residential customers, but may choose to opt out of TOU rates.

5.4.2. Program Administration

We believe that the administrative structure of the SASH program provides a reasonable model for the administration of DAC-SASH. This section discusses the administrative structure for the program as a whole, outlines the major activities for which the PA will be responsible, describes the competitive bidding process that will be used in choosing a program administrator, and provides for periodic evaluation of the program.

5.4.2.1. Administrative Structure

For the past ten years, SASH has been administered by a single, statewide program administrator that operates the program in the territories of PG&E, SCE, and SDG&E. Our experience with SASH demonstrates that a non-utility PA can successfully manage a program of this type across different utility service territories, while keeping administrative costs reasonable. Based on this experience, we chose to use a single program administrator, chosen through a competitive bidding process, for the SOMAH program adopted in D.17-12-022. A single statewide PA will also be able to coordinate marketing and education efforts, ensuring consistent messaging to and treatment of potential participants. Such a structure should simplify communication about the program and make it

more accessible to participants. For these reasons, we choose to have a single PA oversee this program statewide.

5.4.2.2. Major Responsibilities of the Program Administrator

In general, the PA will be responsible for ensuring that all participants in DAC-SASH meet all program requirements. Toward this end, the PA will establish and then implement a process for documenting the eligibility of all program applicants. In addition, the PA will develop processes for verifying the quality and completeness of work performed under the program, and will be experienced in service delivery. Specifically, the PA shall be responsible for the development and management of the program, including but not limited to the following activities.

1. Development of **program materials and procedures**, including:
 - a. Digital application forms and procedures;
 - b. Eligibility documentation requirements;
 - c. Data collection methods, digital forms, and databases;
 - d. Outreach materials (in coordination with statewide education and outreach efforts, as described in D.16-03-029 and D.16-09-020);
 - e. Incentive payment procedures; and
 - f. A DAC-SASH program Handbook, which we anticipate will contain information comparable to the current SASH Handbook.
2. General **program management**, including:
 - a. Supporting the Commission's Energy Division throughout the DAC-SASH program, including assisting with reports, public comment process, meetings, workshops, and evaluation activities and other activities as specified in its contract.

- b. Establishing relationships with low-income single-family homeowners and community-based organizations that serve those populations.
 - c. Building organizational capacity to meet the demands of a statewide program;
 - d. Exploring other funding options with corporations and government agencies;
 - e. Reviewing applications and making eligibility determinations, including collection of documentation of property and participant eligibility, and compliance of proposed projects with program rules;
 - f. Providing customer support, including responding to complaints, problems, and maintenance needs;
 - g. Providing technical assistance with the application processes;
 - h. Collecting and facilitating access to program resources;
 - i. Partnering and working with solar installers to install PV on target homes, and partner with appropriate entities to develop “green job” training or other workforce development programs;
 - j. overseeing compliance with program requirements (for example, ensuring that job training, energy efficiency, and other requirements are met); and
 - k. processing incentive claims.
3. **Data Collection and Reporting** on program operation and outcomes, such as:
- a. Collection of data on program operations, including but not limited to applicants’ eligibility information, project proposals, tracking of project status, MW developed through the program, and incentives paid;
 - b. Collection and reporting of data on the number of training participants and hours, as well as the amount of local labor, provided by DAC-SASH projects;

- c. Meeting all reporting requirements developed by the Commission's Energy Division staff, including posting data on <http://californiadgstats.ca.gov>.

5.5. Implementation Plan and Next Steps

5.5.1. Selection of a Program Administrator

Based on our determination that DAC-SASH should have a single state-wide PA, we find that selection of a PA should be made through a competitive bidding process. Specifically, the Commission's Energy Division will select the Program Administrator through an RFP process managed by PG&E on behalf of the Commission. The RFP process shall be led by staff from the Commission's Energy Division, and Energy Division will make the final decision on the winning bidder and will select one utility to contract with the winning bidder. In making this determination, Energy Division shall take into consideration the following factors:

1. Experience with service delivery in a similar program(s) - by directly or through partners or subcontractor(s), delivering services for engineering, designing, procuring, installing, testing and commissioning of PV systems in multifamily buildings;
2. Databases and IT – Demonstrated successful management of federal, state, and/or local funds; with the ability to track and comply with specific programmatic and audit requirements of multiple funding sources. Maintain a system of internal accounting and administrative control; demonstrate a history of fiscal stability and responsibility;
3. Workforce development and tracking – Experience documenting and reporting workforce participation goals with a track record of providing training in solar installation procedures. Training experience could include training outside entities, formal in-house training, or developing training curricula and may include knowledge of, and demonstrated coordination with, existing utility

and other statewide workforce, education, and training programs and pathways;

4. Technical assistance - Experience with the decision-making, finance, capitalization, and other relevant characteristic of low-income communities or consulting services in the fields of home construction, improvement, or renovation of residential properties, with a focus on weatherization, energy efficiency, and photovoltaic standards;
5. Application review and eligibility verification; and
6. Data Reporting.²⁹
 - a. We direct PG&E to support the selection of a statewide administrator through an RFP process selection and manage the RFP process on the Commission's behalf to assist in expediting the process. Commission staff will play a central role in developing the RFP and will make the final decision on the winning bidder. The RFP process will be concluded and PG&E will sign a contract with the chosen PA by August 30, 2018, unless a different date is determined through a letter from the Commission's Energy Division. Energy Division will serve notice of the release of the RFP and of the winning bidder on the service list for this proceeding.

5.5.2. Program Implementation via a Tier 3 Advice Letter

Once chosen, the PA shall be responsible for developing program rules and procedures consistent with the policies and guidance contained in this decision. This decision, including Appendix A, establishes broad policies for program eligibility, additional program requirements (*e.g.*, for third-party ownership, job training, and energy efficiency services), and program operation.

²⁹ The information provided in Appendix A of D.08-10-036 is also available to Energy Division staff to use in developing criteria for the RFP for the PA.

Once selected, the PA shall hold one or more workshops with interested parties to receive input on appropriate methods for implementing the program, within the policy guidance provided here. In addition, we direct the utilities to enter into appropriate non-disclosure agreements with the chosen PA, if necessary to facilitate the sharing of customer usage data and other personally identifiable information needed for the operation and administration of DAC-SASH. Based on stakeholder input, the PA shall propose a plan for implementing and operating the DAC-SASH in compliance with this decision. Not later than November 30, 2018, the PA shall submit a Tier 3 implementation Advice Letter that includes a DAC-SASH Program Handbook for Commission consideration, subject to approval in a formal resolution. If appropriate, the Commission's Energy Division may modify the due date for this advice letter. The program implementation proposal shall include sections on at least the following subjects:

1. Application procedures;
2. Requirements for documentation of building, and project eligibility;
3. A program budget that includes line items for incentives and administrative activities, including but not limited to marketing, education, and outreach;
4. Specific job training requirements consistent with those discussed in Appendix A;
5. Specific energy efficiency requirements consistent with those adopted in Appendix A; and
6. Data collection and reporting requirements, including report formats.

The Commission may provide further direction on the contents of this Tier 3 implementation Advice Letter through one or more future Commission decisions or resolutions. Once the DAC-SASH Program Handbook

is adopted, the PA may propose program adjustments to the Program Handbook via a Tier 2 Advice Letter. The assigned Commissioner and/or ALJ will determine if suggested program changes require modification of a Commission order, and if so, the change would be considered by the full Commission, following notice to parties and an opportunity to comment.

5.5.3. Measurement and Evaluation

Every three years beginning in 2021, Energy Division shall select an independent evaluator through an RFP process similar to that used to select the Program Administrator. The consultant hired through this process will evaluate the effectiveness and efficiency of both the PA and the DAC-SASH program overall. Specifically, the Commission's Energy Division will select the PA through an RFP process managed by SDG&E on behalf of the Commission. The RFP process shall be led by staff from the Commission's Energy Division, and Energy Division staff will make the final decision on the winning bidder.

If appropriate based on the program evaluation, the Commission may choose to modify program elements including, but not limited to, incentive levels and job training, local hiring, and energy efficiency requirements. Similarly, if necessary based on poor performance by the initial PA, the Commission may decide to choose a new PA using a competitive bidding process comparable to the one described in Section 5.5.1.

5.5.4. Energy Division Budget and Activities

Up to \$500,000 per year from the program budget may be used to reimburse Energy Division for activities related to implementation and oversight of the DAC-SASH program. Activities funded by this budget will include, but may not be limited to, any Energy Division activities related to the competitive

bidding processes required in this decision and all evaluation, measurement, and verification activities.

As discussed elsewhere in this decision, Energy Division staff will make the final determinations on the selection of a Program Administrator and a separate evaluation consultant through competitive bidding processes. The utilities and the PA will work with Energy Division in the development of implementation procedures, and Energy Division staff may hold or direct the utilities and PA to hold workshops to gather input on DAC-SASH rules and operations. Utilities and the PA will also work with Energy Division staff to develop reporting requirements. Energy Division may modify such reporting requirements and formats when necessary to ensure effective oversight of DAC-SASH and to gather data on the program's operation and outcomes as necessary to inform the periodic program reviews.

6. Green Tariff Program for DACs

In addition to proposals for the expansion of SASH-like programs to serve residential customers in DACs, several parties proposed variations of an expanded Green Tariff program, modeled on existing Green Tariffs operated by PG&E, SCE, and SDG&E.

6.1. History of the Green Tariff Program

Senate Bill (SB) 43 (Wolk) (Statutes 2013, Ch. 413) enacted the Green Tariff Shared Renewables (GTSR) Program, which is intended to (1) expand access "to all eligible renewable energy resources to all ratepayers who are currently unable to access the benefits of onsite generation," and (2) "create a mechanism whereby institutional customers...commercial customers and groups of individuals . . .

can meet their needs with electrical generation from eligible renewable energy resources."³⁰ The statute further states that the GTSR Program should facilitate development of renewable resource projects located close to the source of demand.³¹ The GTSR program is designed to allow PG&E, SCE and SDG&E customers to receive 50 percent- 100 percent of their electricity demand from solar generation. The program has a capped enrollment of 600 MW statewide.

One portion of the authorizing statute dedicates a portion of the GTSR program to residents of DACs, defined for the purposes of the programs adopted pursuant to SB 43 as the top 20 percent of DACs per IOU identified by CalEPA. Projects developed under Section 2833(d)(1)(a), known as the Environmental Justice Reservation for GTSR, must be between 500 KW and 1 MW in size. Section 2833(d)(1)(a) requiring the Environmental Justice reservation states:

One hundred megawatts shall be reserved for facilities that are no larger than one megawatt nameplate rated generating capacity and that are located in areas previously identified by the California Environmental Protection Agency as the most impacted and DACs. These communities shall be identified by census tract, and shall be determined to be the most impacted 20 percent based on results from the best available cumulative impact screening methodology designed to identify each of the following:

- (i) Areas disproportionately affected by environmental pollution and other hazards that can lead to negative public health effects, exposure, or environmental degradation.
- (ii) Areas with socioeconomic vulnerability.

³⁰ Section 2831.

³¹ Section 2833(p).

At the same time, however, the statute requires that the costs of existing GTSR tariffs adopted pursuant to SB 43 may not be borne by customers who did not elect GTSR service. Because of this, program costs may not be shifted to non-participating customers, so customers that sign up for a GTSR tariff or project often pay a premium over their otherwise applicable rate. D.15-01-051 began the implementation of SB 43 and set forth the parameters of the program and implementation steps. As adopted, the GTSR program has two components: the “Green Tariff” and the “Enhanced Community Renewables” program. Under the Green Tariff, a customer may pay the difference between their current generation charge and a charge that reflects the cost of procuring 50 percent to 100 percent solar generation for their electricity needs. Under Enhanced Community Renewables, a customer agrees to purchase a share of a local solar project directly from a solar developer, and in exchange will receive a credit from their utility for the customer’s avoided generation procurement and for their share of the benefit of the solar development to the utility.

Under D. 15-01-051, each renewable installation participating in GTSR must generate between 500 watts and 20 MW of electricity. Generation projects participating in the Green Tariff program are chosen through a competitive Request for Offers (RFO) process, and enter into a Power Purchase Agreement with the utility serving the area in which the project operates. Under the Green Tariff option, the costs for generation used by a customer are passed through by the utility to that customer. As a result, customers maintain their utility service and billing, and have no direct contractual relationship with the developer or operator of the generation project. This is in contrast to the Enhanced Community Renewables portion of the GTSR programs, in which customers pay

the developer of the renewable resource to which they subscribe directly for the energy they use.

6.2. Utility and TURN Proposals for DACs Green Tariff Program

Several parties³² recommend either extending or modifying the Green Tariff program as one potential way to encourage solar development in DACs. TURN calls its Green Tariff proposal the Renewable Energy for All Program. As noted above, customers participating in currently existing Green Tariffs pay a premium for energy received through the program to cover the costs of development of participating renewable resources. Under TURN's proposal, energy procured for the Environmental Justice Reservation component of the GTSR program would be made available to low-income DAC residents at no rate premium. Specifically, TURN proposes using a portion of the IOUs' GHG allowance revenues set aside for clean energy programs pursuant to Pub. Util. Code § 748.5(c)(6) to buy down the premium costs of participation in the IOUs' Green Tariff programs for low-income customers living in DACs.

The Renewable Energy for All Program would pay for any net costs associated with subscriptions by participating low-income customers to GTSR generating facilities comprising the Environmental Justice Reservation portfolio. The funds for the Renewable Energy for All Program would be used to offset the rate premium costs for participation in the GTSR program so that participating low income customers do not experience any bill increases due to their subscription to the program.

³² Proposals received from PG&E, SCE, SDG&E, and TURN with supporting comments filed by ORA, TASC, CUE.

TURN contends that the Commission has sufficient authority under current law to adopt the Renewable Energy for All Program, and argues that this Program would extend access to clean energy to all low-income residents of DACs. TURN also asserts that Renewable Energy for All will provide predictable bill savings through bill credits to participating customers because the Green Tariff rate structure would be determined at the time of enrollment. For this reason, the program would provide more predictable savings than would be likely from on-site solar installations, which are more directly impacted by changes in the retail rate structure. The subsidy for participating customers would be transparent and easily quantified, which TURN prefers to what it sees as hidden cost shifting to nonparticipating customers that occurs under net energy metering.

Like TURN, all three large IOUs propose some variation of a Green Tariff program. SCE, for example, proposes a DAC Community Clean Energy program to leverage the GTSR programs' general structure. Although the current GTSR program has a DAC project set-aside, SCE has observed low GTSR program subscriptions in DACs because GTSR subscribers often experience bill increases, and many DAC residents cannot afford the "above market" costs of participating distributed energy resources (DERs) that may be charged to participating customers. To enhance those benefits, SCE proposes to also give program enrollees a 10 percent discount on their bill. SCE suggests that the 10 percent discount approximates the bill savings experienced by NEM customers outside of DACs. Under SCE's proposal, participation in the DAC Community Clean Energy program would be available to CARE customers in DACs. SCE would phase in the program, limiting initial participation to the

most adversely affected customers who would benefit most from the program, such as high usage CARE customers.

To cover these benefits to participating customers, SCE proposes to initially fund the program with any available GHG allowance revenue funds not already dedicated to the Commission's implementation of AB 693. Recognizing that those funds will likely not be sufficient to cover a robust program, SCE also recommends that the Commission and the utilities jointly encourage the Legislature to earmark monies from do not become available, SCE requests that the Commission provide guidance on how SCE can recover expenditures associated with the DAC GTSR program through rates, such as an advice letter process with a memorandum account to track expenditures. Because it depends on external sources of funding, SCE asserts that its proposal will allow customers in DACs to support DERs without associated bill increases. Regardless of the funding mechanism, SCE suggests adopting a program cap of 70 MW, which would be incremental to the 45 MW of solar reserved for DAC customers under the GTSR program.

SDG&E proposes the SolarAll program to build on the Green Tariff component of GTSR, as a way of promoting the adoption of renewables in DACs and increasing program affordability for a subset of low-income customers. SDG&E proposes to leverage the Environmental Justice Reservation associated with its existing Green Tariff offering (branded currently as "EcoChoice"), to grow solar adoption among DAC CARE customers without further adding to solar procurement or incurring additional costs for ratepayers.

SDG&E proposes that customers participating in the SolarAll program must first enroll in its Schedule GT, the governing tariff for the Green Tariff component of the GTSR program.³³ Only CARE customers in DACs would be eligible for SolarAll. Once enrolled on Schedule GT, CARE customers in DACs would not need to take further action to participate in SDG&E's new SolarAll program. Participants would be automatically enrolled in the SolarAll program if they reside in a DAC³⁴ and are currently enrolled in SDG&E's CARE program.

SDG&E would provide up to 100 percent renewable energy to customers that qualify for the SolarAll program without charging them the typical Green Tariff rate premium. The otherwise applicable charges for renewable energy as outlined in Schedule GT would be offset with an equivalent credit provided by a new tariff, Schedule SolarAll, which would be applied to all qualifying Green Tariff participants in Schedule SolarAll.

Similarly, PG&E proposes a Solar CARE Plus program that it asserts will spur solar growth among low-income customers within DACs. Under PG&E's proposal, the Solar CARE Plus program would provide eligible customers the opportunity to have 100 percent of their annual electric usage supplied at no cost premium by a pool of solar projects sited in DACs, and would further offer participating customers a bill credit of 1.5 cents per kilowatt-hour, which

³³ For Schedule GT, an eligible customer is currently defined as a bundled utility customer in SDG&E's service territory who: (i) does not procure its electricity directly from electric service providers (ESPs) as defined in Rule 1; (ii) does not take service under Schedule NEM, NEM-V, RES-BCT or any other distributed generation tariff; (iii) is not a CCA or member of a CCA; or (iv) is not currently participating in a pilot rate program.

³⁴ SDG&E proposes to define a DAC for the purpose of this Program as being located in a census tract which falls in the top 25 percent of the CalEnviroScreen 3.0 tool's (or a successor tool's) tracts within SDG&E's territory.

represents approximately 10 percent of the average electric rate for CARE customers.

The proposed program would be open to CARE-eligible customers located in the top 25 percent of impacted census tracts in PG&E's service territory as determined by the CalEnviroScreen 3.0 tool. Participants would enroll to have 100 percent of their annual usage provided by a pool of solar projects sited in DACs. Participants would continue to take service on the CARE rates, and both their program premium and the additional 1.5 cents per kilowatt-hour credit would be fully subsidized.

PG&E proposes that participating generation installation should be between 500 watts and 20 MW in size, and the program size would be capped at 70 MW in its territory. The 70 MW procured for this program would be separate from and incremental to the 45 MW of solar facilities reserved for service to customers in DACs in PG&E's GTSR Program. PG&E estimates the program would cost \$5 million per year, to be funded from sources outside of rates, such as the Greenhouse Gas Reduction Fund.

6.3. Comments on Utility and TURN proposals for DACs Green Tariff Program

ORA supports the three utility proposals to modify and leverage the existing GTSR Program framework and recommends the Commission adopt the proposals, with some modifications, as part of a five-year pilot with study and evaluation after the second and fifth year. Specifically, ORA recommends that the Commission modify the PG&E and SCE proposals so that all participants receive credits to offset the GTSR program cost premium, and half of each company's participants also receive an additional 10 percent bill credit. ORA supports adoption of the SDG&E proposal as a five-year pilot without additional

modifications. ORA further suggests that the 10 percent discount suggested in the PG&E and SCE proposals should be a starting point, and recommends that the Commission consider increasing the discount for low income customers. ORA also recommends that funding for the GTSR proposals be limited to the utility GHG allowance revenues set aside for clean energy and energy efficiency projects.

GRID generally supports the four proposals, and particularly supports two aspects of the PG&E SolarCARE Plus option: that it does not require participating customers to make a long-term commitment to the program, and that it allows for project bids to be ranked on multiple factors. GRID notes that under PG&E's SolarCARE Plus proposal, customers do not sign a long-term contract or agreement, and so can enter or leave the program at any time. As a result, participation in the program does not create any financial risks to customers, but still provides customer savings. GRID also supports PG&E's proposal that project bids could be ranked based on factors besides lowest cost, including community benefits such as job training and workforce development. GRID agrees with ORA that the 10 percent savings proposed by PG&E should be considered a starting point, with the possibility that the program could be modified to provide greater savings in the future. In support of its suggestion that the Commission consider providing greater savings, GRID notes the SASH TPO model requires a minimum of 50 percent bill savings for participants.

In contrast, MCE recommends that PG&E's Solar CARE Plus proposal should be rejected because it is only available to bundled customers. MCE argues that this restriction may encourage unbundled customers to opt out of CCA services. MCE suggests that allowing this program for bundled customers only may conflict with the requirement of Section 707(a)(4)(A), which directs the

Commission to foster fair competition. Alternatively, MCE argues that if the Commission intends to approve PG&E's Solar CARE Plus Program, the proposal should be modified to only recover costs from PG&E's bundled customers only, since program eligibility would be limited to those customers.

MASH Coalition opposes the GTSR proposals for two main reasons. First, MASH Coalition asserts there is at best a small economic benefit to participants. Second, MASH Coalition argues that the Green Tariff proposals do not provide the opportunities for community engagement with renewable energy that they see as being at the heart of AB 327's DAC mandate. MASH Coalition argues the DAC requirements of Section 2827.1(b)(1) must be considered within the context of the net energy metering program, and therefore should focus on distributed energy generation installed on the customer side of the meter. The Green Tariff proposals, by contrast, involve opting into a utility-owned portfolio of generating facilities, and would not provide individual connections between specific communities and renewable energy generation installed in those communities.

Greenlining supports the goal of 10 percent bill savings, however, it does not support PG&E's proposal to limit participation exclusively to CARE-eligible residential customers in DACs. Greenlining suggests broadening the eligibility to include non-residential customers like small businesses, community-based organizations, schools and libraries as well as higher income residents. Greenlining also opposes PG&E's proposal for program funding from the GGRF asserting that the Commission does not have legal authority to allocate GGRF funds in this proceeding because those funds must be appropriated by the legislature. Greenlining also questions whether this program is the best use of

the GHG allowance revenues and, as with SCE, requests the Commission provide guidance on more appropriate funding sources for this program.

TASC supports the concept of a Green Tariff program that allows IOUs to leverage Public Purpose Program or GGRF funds to subsidize clean power for low-income customers in DAC areas, and specifically supports PG&E's and SCE's proposals to provide a fixed bill credit of 1.5 cents per kilowatt-hour to participating customers. TASC believes the DAC Green Tariff should have two eligibility requirements: customers would be CARE-eligible and located in DACs. TASC encourages the Commission to adopt participation caps based on those in each IOU's proposal and allow for a programmatic check-in, and corresponding cap expansion, at a time that leaves sufficient opportunity to ensure program continuity. At the same time, however, TASC contends that adopting variations on the existing GTSR program is not an appropriate substitute for customer-generated solar power or co-located community solar.

CSE objects to the four proposals for several reasons. CSE does not believe that these proposals will significantly expand the adoption of solar among DAC residential customers, and does not address GRID's recommended guiding principles for DAC programs. Although the degree of benefits accruing to residential customers in DACs among the four proposals varies, CSE believes that at best these proposals would result in minimal customer savings.

Furthermore, CSE notes that to buy-down the premium for DAC residential customers, each proposal relies on proceeds from the auction of GHG allowances under California's cap-and-trade program. CSE argues that the uncertainty of auction revenues will send unreliable signals, creating confusion among market participants. Because of this and what it perceives as a lack of meaningful bill

savings to reduce the low-income customers' energy burden, CSE believes these proposals should be rejected by the Commission.

In addition to these concerns, the Joint Solar Parties and CEJA argue that low-income subscribers are likely to achieve greater savings from clean energy via community solar expansion than they would receive via proposed GTSR variations because limited available funding means the Commission will likely aim to be efficient with those dollars and keep subscriber savings relatively low. These parties also contend that under a modified GTSR program, as proposed by the utilities and TURN, customers cannot subscribe to a specific project, nor is there an obvious means for community control or ownership of projects.

6.4. Adoption of a DAC-Green Tariff

We recognize that a Green Tariff for DACs may not provide a visible connection between DAC customers and specific solar installations in their communities. At the same time, we find that the Green Tariff proposals address many of the other goals for DAC programs identified by parties to this proceeding, and will provide an option for low-income customers to be able to afford and have access to a program similar to one that exists for other customers. Specifically, a Green Tariff accompanied by a suitable discount would provide low-income customers with cost savings, while making renewable generation more broadly available to both homeowners and renters in single-family and multifamily housing in DACs. In addition, we find that it is reasonable to provide multiple options for customers in DACs to gain access to clean energy resources. For some of these households, a modified Green Tariff program may be the best option.

At this time, renters in single-family homes have few options to participate in a solar program outside of one of the existing GTSR programs. As

Greenlining and others note, many GTSR options are premium-price products, which may be cost-prohibitive and create a barrier to participation for low-income and disadvantaged community residents. As PG&E and others point out, a DAC-Green Tariff option would overcome many of the barriers to solar adoption for low-income customers within DACs that are not effectively addressed by existing programs. In particular, these options would address economic barriers (e.g., low customer credit ratings), property ownership barriers (e.g., renters cannot directly adopt rooftop solar), property structure issues (e.g., poor roof condition or sub-optimal roof orientation) and marketing and outreach barriers (e.g., multi-lingual marketing challenges).

To provide low-income customers in DACs the opportunity to access the benefits of GTSR programs and provide multiple green energy options for these customers, we will adopt a DAC-Green Tariff program. As discussed in Section 3 above, the DAC-Green Tariff program will be available to CARE-eligible customers in the top 25 percent of DACs, based on CalEnviroScreen. The three IOUs and TURN all propose that the project size for a DAC-Green Tariff program should align with the current Green Tariff, which allows for projects between 500 KW and 20 MW. We find that it is reasonable to maintain consistency between project size for the DAC-Green Tariff and the existing Green Tariff option.

We will base a new DAC-Green Tariff program on the Green Tariff portion of the GTSR, as follows:

- The IOU executes a Power Purchase Agreement with a developer for a solar project;
- The project is selected through a competitive solicitation;
- There is no direct relationship between the customer and the project developer;

- Subscribing customers receive 100 percent renewable energy; and
- Subscribing customers receive a defined bill credit.

This program will be in addition to, rather than part of, the existing Green Tariff program, and will be available only to low-income residential customers in DACs, defined as those meeting the qualifications for CARE or FERA. The following sections outline the specific modifications to the existing Green Tariff that we adopt for these customers. PG&E, SCE, and SDG&E will implement the DAC-Green Tariff program by filing a Tier 3 Advice Letter within 60 days of the effective date of this decision.

6.4.1. 20 percent Bill Reduction

We agree with ORA and GRID that savings greater than the 10 percent discount proposed by SCE and PG&E are appropriate to provide meaningful savings for low-income residential customers in DACs. GRID points out that Navigant Consulting – the third-party program evaluator for the SASH/MASH programs – found that the top motivator for low-income families to participate in the SASH program was financial: “Over 75 percent of SASH participants surveyed indicated that the reduction in their electric or utility bills was their primary reason that they participated” in the low-income solar program.

In order to provide meaningful bill savings to reduce customers’ energy burdens, we find that it is reasonable to provide a large enough discount to encourage low-income customers in DACs to consider green options. In order to provide a meaningful benefit to participating customers, we will set the discount level at 20 percent, but we apply the discount only to the generation portion of customers’ bills.

6.4.2. Participation caps

PG&E asserts that the addition of 70 MW in its service territory would result in roughly equivalent renewable energy adoption rates between CARE customers in DACs and non-DAC customers. We find this to be a reasonable cap for PG&E. We will also set the same 70 megawatt cap for SCE, and an 18 megawatt cap for SDG&E (based on the approximate relative size of SDG&E to PG&E). Once the cap is met for any utility, we will re-evaluate whether to modify the program.

6.4.3. Project Location Requirements

The three IOUs and TURN propose that projects could be located in any DAC within the same IOU service territory as customers. We agree that there is no need for stricter location restrictions than proposed by the IOUs and TURN. As discussed in Section 3, DACs for the purposes of this program are defined as communities that are identified, by using CalEnviroScreen 3.0, as among the top 25 percent of communities statewide, along with the 22 communities in the highest 5 percent of CalEnviroScreen's Pollution Burden that do not have an overall CalEnviroScreen score because of unreliable socioeconomic or health data.

6.4.4. No Mandatory TOU Requirement

SCE and TASC suggest that mandatory TOU can pose financial uncertainty for customers and potentially mute any economic benefits from a DAC-Green Tariff program. PG&E proposes that DAC-Green Tariff customers should not be required to go onto TOU rates because it is not a NEM program and there is no mandatory TOU requirement for the existing Green Tariff program. D.16-01-044 required that every residential customer interconnecting pursuant to the net energy metering successor tariff be placed on an appropriate

and available time of use rate to improve customers' responsiveness to demands on the grid, which is especially important since NEM customers make a one-time decision on the orientation of their solar PV systems. In D.17-12-022, our recent decision adopting the SOMAH program, we found it reasonable to exempt tenants participating in SOMAH from the requirement that applies to other customers using the NEM successor tariff to take service under a TOU rate. This is consistent with the requirements of AB 693, under which the Commission must ensure participating customers are protected from higher rates as a result of being a part of the program.

We find that the same logic that applies for the NEM successor tariff customers, who are installing a solar system, does not apply to the DAC-Green Tariff program subscribers. In addition, it is not appropriate to require low-income customers to be on a TOU rate for the DAC-Green Tariff, when other customers on the existing Green Tariff do not have the same requirement. Accordingly, we will not require that DAC-Green Tariff customers be on TOU rates.

6.4.5. Funding Source

Most parties propose using either GGRF funds or the portion of utility GHG allowance proceeds set aside for clean energy programs to fund a DAC-Green Tariff program. MCE argues that the DAC-Green Tariff would only be open to bundled customers, and if so, the use of GHG allowance proceeds would not be appropriate because those funds are intended to benefit all customers, bundled and unbundled. However, our DAC-Green Tariff would be open to both bundled and unbundled customers to the extent that CCAs and DA providers offer the program to their customers.

As with the DAC-SASH program, it is appropriate that all customers pay for the DAC-Green Tariff program. We will require that the DAC-Green Tariff program first be funded through available GHG allowance proceeds. If such funds are exhausted, the DAC-Green Tariff program should be funded through public purpose program funds.

PG&E, SCE, and SDG&E shall file Tier 2 Advice letters within 30 days of the adoption of this decision to create DAC-Green Tariff balancing accounts. The companies will track all costs related to the implementation and operation of the DAC-Green Tariff program in these balancing accounts. These balancing accounts will be reviewed in each company's future ERRA proceedings. In addition, each company will file an application for review of the DAC-Green Tariff Program not later than January 1, 2021. That proceeding will include a review of both the program's costs and benefits, and may result in revisions to the tariff, if appropriate.

7. Community Solar

In this section, we create a new Community Solar program which will allow primarily low-income customers in certain disadvantaged communities to benefit from the development of solar generation projects located in their own or nearby disadvantaged communities. The program is similar to the current VNEM programs but tailored to the most disadvantaged communities in PG&E, SCE and SDG&E's territories. The program draws from the 2015 Staff proposal and the proposals of Joint Solar Parties and CEJA/SELC (and comments thereupon). As discussed herein, this program will provide benefits to the participating customers, benefits to their communities, and benefits to the environment. The Community Solar program, along with the GTSR program, fill gaps among the various current solar programs because they benefit

homeowners with unsuitable roofs and renters. Moreover, the Community Solar program provides these low-income customers opportunities to generate their own solar power.

7.1. Background

Customers who install small solar, wind, biogas, and fuel cell generation facilities to serve all or a portion of onsite electricity needs are eligible for the state's net metering program (NEM). NEM allows customers who generate their own energy ("customer-generators") to serve their energy needs directly onsite and to receive a financial credit on their electric bills at the end of a 12-month billing cycle for any surplus energy fed back to their utility.

The current NEM program (the "NEM Successor Tariff") was adopted by the Commission in D. 16-01-044 and is available to customers of PG&E, SCE and SDG&E. The program provides customer-generators full retail rate credits for energy exported to the grid and requires them to pay certain charges that align NEM customer costs more closely with non-NEM customer costs. Any customer-generator applying for NEM must pay non-bypassable charges on each kilowatt-hour of electricity they consume from the grid in each metered interval to fund public purpose programs such as low-income and energy efficiency programs, and (if a customer-generator is not already on one) take service on a TOU rate to participate in NEM.

In order to encourage solar installations on multitenant affordable housing properties, the Commission directed the IOUs to file tariffs for virtual net energy metering (VNEM)³⁵ in 2008 in D. 08-10-036. These buildings are a challenging

³⁵ Parties use both the terms "VNM" and "VNEM" as acronyms for Virtual Net Energy Metering. In this Decision, we will consistently use the term "VNEM".

segment for solar PV adoption due to the problem of distributing the benefits of system output among individually metered occupants. Under VNEM, the utility meters the PV system's output, then allocates energy credits for the energy produced by the PV system to the building owners' and/or tenants' individual utility accounts, based on a pre-arranged allocation agreement. The MASH program piloted the VNEM tariffs; the original intent of VNEM was to help low-income multifamily residents receive direct benefits of a building's solar system under VNEM.

Based on the merits of these tariffs, the Commission expanded VNEM to all multi-tenant, multi-meter properties in 2011 in D.11-07-031 and included all NEM-eligible technologies for eligibility. The VNEM tariff, like the NEM tariff, is available to both bundled and unbundled (direct access and community choice aggregation) customers of the IOUs. While VNEM has been successful at bringing the benefits of distributed generation to a small subset of customers, it has generally been available only to those customers living in multifamily housing properties where the property owner has chosen to invest in a photovoltaic system.

D.15-01-051 and D.16-05-006, the Commission's GTSR decisions, adopted the Enhanced Community Renewables tariff. As described in PG&E's tariff Schedule EECR:

The Enhanced Community Renewables (ECR) program is one of two voluntary rate supplements to the customer's otherwise applicable rate schedule (OAS) offered within the Green Tariff Shared Renewables (GTSR) program. The ECR program allows a customer to choose to receive a bill credit from PG&E reflective of the customer's subscription to an ECR solar facility. Schedule EECR is available to a PG&E Bundled-Service customer on a first-come, first-served basis until the date that customer participation under E-GT and the combined nameplate rated generating capacity of all

Community Renewables facilities participating on schedule E-ECR reaches the GTSR program cap of 272 MW, which is PG&E's allocated share of the total statewide GTSR program cap of 600 MW. Once the program cap is reached, no new customers will be allowed to take service under this schedule, only existing customers will be allowed to continue until the program is terminated.

Each customer must continue to take service under the provisions of their OAS. A customer is not eligible to participate in the Enhanced Community Renewables program if the customer is taking service on either: 1) Transitional Bundled Service under electric Rule 22.1, 2) Schedule S, where the customer's demand is regularly served by a non-PG&E supply, 3) in conjunction with a net metering rate schedule, or 4) non-metered service. Customers served under this schedule must enter into a Customer Developer Agreement (CDA) with a Developer of an Enhanced Community Renewables facility and consent to the Developer providing select information about the customer's subscription to PG&E on a regular basis in order for PG&E to accurately bill the customer.

In the June 3, 2015 Staff Paper which is in the record of this proceeding, Staff proposed allowing residential customers in certain CalEnviroScreen-designated disadvantaged communities to participate in an expanded VNEM tariff, called Neighborhood VNEM. In this proposal, credits from a customer-sited renewable distributed generation system could be allocated to any residential customer served by the same electric utility and in the same census tract as the distributed generation system host customer. The underlying compensation structure for the energy generated by the renewable distributed generation system would be the same compensation structure that the Commission adopts for the standard NEM successor tariff/contract.

In the Staff Paper proposal, the host of the generating system does not have to be a residential customer, but must be a customer of one of the three large electric IOUs and located within a CalEnviroScreen-designated

disadvantaged community. All customers benefitting from the allocation of Neighborhood VNEM credits must be residential customers within a CalEnviroScreen-designated disadvantaged community, in the same census tract as the generating system host customer, and must be within the same electric IOU service territory.

In the Staff Proposal, the generating system must be located behind the host customer's meter, and must serve at least some onsite load. The generating system may be sized larger than annual onsite load but no larger than either the aggregated annual load of all benefitting customer accounts, or the NEM system size interconnection limit, if any, adopted by the Commission (at that time, 1 MW), whichever is smaller.

7.2. CEJA/SELC Equity VNEM Proposal³⁶

CEJA/SELC proposes an "Equity Virtual Net Energy Metering" (Equity VNEM) tariff to enable equitable development of community-based and owned energy projects that are close to customers, and small in size. These project elements would include:

a) A majority of the project is owned or controlled by either (i) residents of disadvantaged communities, directly or indirectly via any entity, or (ii) a nonprofit or government entity³⁷;

³⁶ The discussion in this section and the following sections references proposals from parties filed in this docket on April 24, 2017, and comments and reply comments filed on May 26, 2017 and June 16, 2017, respectively. Previous comments were also filed in this docket and are in the record as well. However, the 2017 comments in most cases supersede or reiterate previous comments. Comments from before April 24, 2017 are not considered unless specifically mentioned.

³⁷ Ownership or control by DAC residents could be directly through individual legal ownership or through indirect ownership or control via a for-profit or nonprofit entity.

b) The project is located within the same or an adjacent DAC census tract as all customers (including CARE customers within a 0.5 mile radius from those census tracts); and

c) The project's generating capacity does not exceed 1 megawatt.

CEJA/SELC states its proposal is a very limited extension of California's original NEM rate structure to customers of the specifically-defined community-based projects. The rate structure includes NEM 1.0 retail rate compensation, while customers remain on existing rates. Consistent with the NEM 1.0 rate structure (but not the NEM Successor Tariff), there would be no "non-bypassable charges" assessed on VNEM usage.

CEJA/SELC considers the Joint Solar Parties' proposal (described below) a vital piece in the suite of alternatives because of its efficacy in addressing key issues, yet not a sufficient alternative for disadvantaged communities on its own. CEJA/SELC recommends that the two proposals be combined due to complementary strengths and limitations that collectively fill a substantial segment of the alternatives necessary for disadvantaged communities.

7.3. Joint Solar Parties DAC VNEM Proposal

Joint Solar Parties propose an expansion to the VNEM tariff (Disadvantaged Communities VNEM or DAC VNEM) that allows both bundled and unbundled customers in disadvantaged communities to subscribe to a solar system and be assigned VNEM credits, so long as the project and participating customers are located in any designated disadvantaged community within the same IOU service territory.

Joint Solar Parties offer a two-part definition of disadvantaged communities: a) a census tract that has been designated as in the top 25% using the most recent version of the CalEnviroScreen tool in either a state-wide or a

utility-wide basis, whichever is broader, or b) customers that meet MASH/SASH definitions of affordable housing. VNEM credits would be allocated on a volumetric basis based on the participant's retail rate, consistent with the existing VNEM construct under the NEM Successor Tariff. A DAC VNEM project owner would provide an electronic form approved by the Commission every six months to the utility outlining the customer accounts that have subscribed to a share of the generation from the solar project and the proportional output of the DAC VNEM project attributable to that customer's account for the preceding months. The utility would use this information to assign VNEM credits to subscribing customers' utility bills in the following months.

Joint Solar Parties contend that its VNEM approach attempts to mitigate the reality that DACs tend to include higher concentrations of renters and customers with lower creditworthiness. By decoupling the site from the customer, a project can combine many customers for various lengths of commitment, unlike a behind-the-meter NEM project that locks one solar project to one customer for the lifetime of the investment.

7.4. Comments on CEJA/SELC and Joint Solar Parties Proposals

GRID generally supports the Joint Solar Parties DAC VNEM concept and proposal. Greenlining generally supports both the CEJA/SELC proposal and the Joint Solar Parties proposal. Regarding the latter, Greenlining encourages greater low-income participation to maximize the number of beneficiaries of this program and the barriers removed by it.

CSE supports the Joint Solar Parties proposal as a solid framework that provides affordable access to clean energy in DACs and other low-income-qualifying customers. CSE also supports the Equity VNEM proposal submitted

by CEJA/SELC as a more targeted approach to ensure the benefits of renewable energy reach intended recipients. CSE agrees with CEJA/SELC that the Equity VNEM tariff, which is designed for smaller rooftop systems, should be adopted to complement the DAC VNEM proposal. CSE believes the Equity VNEM tariff offers all the benefits of the DAC VNEM tariff (i.e., open to all residents, breaks down financial barriers, etc.), but the Equity VNEM tariff also incentivizes majority-owned and/or majority-controlled projects by the residents, non-profits, or governments in the DAC.

TASC contends the Joint Solar Parties' proposal is a good starting point for expanding the Commission's VNEM program, but the DAC GTSR is better suited for DACs. Because only 10% of each project's capacity would be allocated to CARE customers, and up to 25% of each project's subscriptions could be sold to commercial customers, TASC is concerned that proposal has the potential to benefit those that do not require further inducement to take advantage of distributed energy resources and likely already have access to distributed energy resources through the competitive market.

IREC supports expanded VNEM for customers in disadvantaged communities, starting at least with the Joint Solar Parties' proposal, and potentially overlaying the CEJA/SELC proposal. IREC believes that there is an important role for incentives within the suite of policy alternatives for disadvantaged communities, but suggests that a core strength of the Joint Solar Parties DAC VNEM proposal is that it does not require any additional public funding to serve customers in disadvantaged communities. IREC contends that project costs would be low enough in comparison to rates that both CARE and non-CARE customers could realize savings.

PCE in reply comments urges the Commission to ensure that its programs do not create anti-competitive concerns between bundled and unbundled ratepayers, and supports additional clean energy choices, such as VNEM alternatives, for CCA customers in disadvantaged communities.

TURN supports a community solar program if the renewable distributed generation system is shared among multiple meters on the same contiguous property as is done in the AB 693/Solar on Multifamily Affordable Housing (SOMAH) Program and existing MASH program. However, TURN does not support the Joint Solar Parties or CEJA proposals, because TURN does not support providing retail rate credits to any customer not located on the same property as the distributed generation system because it will result in a cost-shift to other customers. TURN contends there is no way to limit the significant cost-shifting that will occur under both VNEM proposals which will have a net effect of increasing rates for all other ratepayers, including other low-income customers and CARE customers. TURN also argues that up to 90% of the direct financial benefits of the VNEM Proposals could be provided to non-low-income and non-residential customers who happen to be located in a DAC at the time of enrollment.

SCE generally opposes parties' proposals to expand VNEM, until the Commission and stakeholders are able to glean information on the impacts of the very recent expansion of VNEM that was instituted under the NEM Successor Tariff Decision. SCE believes further expansion of the VNEM program is premature, at best, because the expansion the Commission already authorized has yet to be (as of the time of their filing) implemented in SCE's service territory.

PG&E contends that VNEM allows customers who rely on the use of the distribution and transmission network to avoid paying any costs associated with that service. The underlying costs must then be shifted to other customers. Further, PG&E argues that VNEM, to the extent that it allows generation in one location to serve remote load is essentially *de facto* Direct Access, in which the energy supplier gets free “wheeling” service. Moving power from a generator to load located nearby involves wheeling, and both FERC³⁸ and the CPUC have rejected proposals for providing such service without paying for all the necessary elements of such service, including transmission costs.³⁹

PG&E opposes the two main VNEM proposals. As proposed by Joint Solar Parties, PG&E contends that over one million residential customers in PG&E’s service territory would be eligible to zero out most of their bill, while continuing to take extensive utility services. In addition, many thousands of non-residential customers would be eligible for such a service, taking up to a quarter of all generation built through this program. PG&E contends the costs

³⁸ PG&E cites *Pacific Gas and Electric Co.*, 100 FERC ¶ 61,156 (2002) (distribution-only service would unjustly permit a customer, such as Enron, to avoid its share of the costs associated with the construction, maintenance, and operation of the ISO Grid).

³⁹ PG&E cites to CPUC rejection of a request for a “Distribution-Only Tariff” in D.03-02-068. There, at pages 29-37, the CPUC considered whether a generator connected at distribution that makes a retail sale to a customer on the same distribution circuit (1) utilizes the transmission system, and (2) should be eligible for a distribution-only tariff. It concluded that distribution system operations rely on the transmission system, and

Establishment of a distribution-only tariff would “unjustly permit a customer to avoid responsibility for its share of the costs associated with the construction, maintenance, and operation of the [Cal] ISO Control Grid without which the transactions in question would not be possible.” *PG&E*, 88 FERC ¶ 63,007 at 65,073 (1999). As PG&E points out, “(t)hese transmission and grid management costs will not go away; instead, they will be unfairly shifted to other utility ratepayers.”

incurred by other customers to subsidize this new VNEM program could total \$479 million to \$780 million per year at full enrollment, adding \$4.70 to \$7.60 per month to the bill of an average non-CARE PG&E residential customer, or increasing average CARE bills by \$2.80 to \$7.33 per month. PG&E argues that this portion of the resulting subsidy borne by CARE customers would exceed the amount received by CARE participants, meaning this program would make CARE customers worse off as a segment.

SDG&E opposes the proposals of the Joint Solar Parties and CEJA/SELC to increase solar access for DACs through expansion of the investor-owned utilities' existing VNEM tariffs, arguing that the proposals would implement "hidden" subsidies and would result in unreasonable cost shifts to non-participating customers. SDG&E agrees that subsidies will be required to increase solar access in DACs may be necessary, but argues that such subsidies place a significant burden on non-participants.

7.5. Adopted Community Solar Program

Parties are divided on the merits, timing and specific elements of a community solar program. In this decision, we provide enhancements to the SASH program and a DAC Green Tariff in order to extend the menu of clean energy options available in disadvantaged communities. In addition, we believe an option should be developed to extend the benefits of net energy metering to disadvantaged communities which cannot effectively take advantage of current solar offerings. Low-income owners of single-family homes are generally not able to afford to install rooftop solar, either due to unsuitable roofs or inability to finance (or both). Low-income renters in single-family homes are generally not able to persuade their landlords to install rooftop solar. We have provided VNEM alternatives for rooftop solar for residents of multi-family housing and

the SOMAH program which incentivizes solar on affordable multi-family housing.

What is missing is a way for customers – especially low-income customers – in disadvantaged communities who do not reside in affordable multi-family housing to access their own generation of green benefits at an affordable cost. Specifically, we determine that it is consistent with the intent of AB 327 and P.U. Code 2827.1(b)(1) to develop a Community Solar program as one of several “specific alternatives designed for [renewable energy] growth among residential customers in disadvantaged communities.” A Community Solar program, along with GTSR, fills a gap among the various current solar programs, none of which adequately target renters not in multi-family buildings or owners with unsuitable roofs. A Community Solar Program can also offer a community ownership opportunity. Further, it may be possible for communities to leverage funding from other sources – such as state and local funding sources for clean energy projects – to finance Community Solar projects; funding which may not be available for other clean energy options.

We agree with the comments of several parties that the benefits of a Community Solar program should substantially accrue to low-income households and also limit any potential cost shifts to non-participating households. We recognize that it is possible that cost shifting can occur as a result of the Community Solar program because it is a form of Net Energy Metering. IREC emphasizes that there is not agreement among stakeholders regarding solar valuation and associated cost-shifting issues, and questions whether this concern should override the compelling arguments in favor of expanded VNEM.

In the Commission's NEM Successor decision, D.16-01-044, at 81-82, we discussed the question of whether there are cost shifts associated with NEM:

The principal potential disadvantage of continuing the current full retail rate NEM tariff is economic. The IOUs lose revenue from NEM customers, particularly residential NEM customers, because those customers pay less to cover distribution costs through their volumetric rates. This revenue is recovered through increases in rates paid by all customers.

Several parties, including the IOUs, ORA, and TURN, would like the successor tariff to take on the issue of a "cost shift" directly.

However, as discussed throughout this decision, the Commission's analytic capacity and access to the relevant information that would allow a reasoned approach to this problem are still being developed. This proceeding has been one of the venues for the debate about whether, or to what extent, this is a net "cost" of the NEM tariff. As discussed in Section 2.3.3, above, the ongoing development of better analytic tools to address the question of costs and benefits of customer-sited renewable DG is a principal driver of our approach to developing the NEM successor tariff. (footnote omitted)

We do not come to any further conclusions in this decision regarding whether there are cost shifts involved with Community Solar or, if so, what the magnitude of such cost shifts would be. At the same time, we are mindful that it is necessary to take care to limit the potential of significant cost shifts which may occur. Thus, the Community Solar program will at this time be limited to the set of customers specified in this decision, and will be limited by the restrictions on the size, scope and parameters of the adopted program as discussed herein.

At the same time, it is necessary that the scope of the program be large enough to ensure project viability. Development of a program which results in few or no Community Solar projects is not a useful exercise. The more potential customers and the more flexibility for project developers, the more likely it is

that viable Community Solar projects will come into being – thus providing the intended public interest benefits.

We will adopt a Community Solar program that takes elements from the CEJA/SELC Equity VNEM and the Joint Solar Parties proposals, as well as the Staff proposal. We also draw from the Enhanced Community Renewables (ECR) program. The ECR program stemmed from SB 43, which stated that “[a] participating utility shall provide support for [ECR] programs to facilitate development of eligible renewable energy resource projects located close to the source of demand”.⁴⁰ As described in D.15-01-051 at 57-58, generally ECR projects are designed to allow customers to contract directly with a third-party participating renewable developer to subscribe to a specific local renewable facility.

D.15-01-051 at 59 described pluses and minuses of the ECR concept:

- The rewards of ECR are community involvement, increased renewables, locational benefits, and certainty of renewable power cost. The risks are customer manipulation by third party developers, and developers gaming the ECR selection process with sham community interest.
- To be successful, the program needs to give communities the flexibility to structure their projects in innovative ways that incentivize community participation and developer interest in new projects. The Commission should not dictate the structure of these arrangements, but provide support that allows developers to access the best financing arrangements. The ECR component must encourage, rather than discourage, efforts of municipalities to develop shared community renewables. The program must also encourage community participation and protect customers from unscrupulous developers. (footnotes omitted)

⁴⁰ P. U. Code Section 2833(o).

We keep these benefits and concerns in mind as we develop the Community Solar program. We also keep in mind that there have not been any successful projects developed under the ECR program to date, a possibility indirectly contemplated in D.15-01-051.⁴¹

In general, the Community Solar program will allow a developer to create a distributed solar generation project for the benefit of a set of low-income customers in the same or a nearby qualifying DAC. The project would likely be a solar array located on the rooftop of a building (or other feasible space on the property) owned by a residential, commercial, non-profit or governmental entity. A project may be owned by the owner of the building, or the owner can be the host for a project owned by a third-party; the third-party may consist of members of the community.

The project would then sell an interest to community members, or community members would make a payment to the developer through a mutually agreeable arrangement. The project would interconnect to the utility. The utility would deliver the electricity, while customers would receive VNEM credits from, and pay the underlying rate to, the utility. The host would also receive VNEM credits.

Other elements of the program will include:

- A project must be:
 - located in the territory of one of the three large electric IOUs, and

⁴¹ As stated in D.15-01-051 at 61: “We direct the IOUs to begin considering ECR projects, but leave many details to the imagination of developers, customers, and IOUs. At the same time, we set a framework for basic protections for customers and for preventing developers from gaming the program. While we believe that we provide sufficient basis for the IOUs to procure ECR resources, Phase IV of this proceeding will allow parties to further develop and optimize the programs.”

- located either within the same disadvantaged community as the customers it serves or
- within a top 25% CalEnviroScreen3.0-designated disadvantaged community located no more than 5 miles away from the disadvantaged community it serves
- All customers of a project must be in the same top 5% CalEnviroScreen 3.0-designated disadvantaged community in each IOU's territory or reside in the same San Joaquin Valley community identified in R.15-03-010.
- At least 50% of each Community Solar project's capacity must be allocated to low-income customers.
- No more than 25% of a project's capacity can be allocated to certain non-residential customers.
- The host can utilize no more than 50% of the project's capacity in most cases.
- Project size is limited to 30% of the total program capacity in that IOU's Community Solar program.
- Program size is limited to 18/18/5 MW for PG&E/SCE/SDG&E, respectively.
- CARE-eligible and FERA-eligible customers are exempt from the NEM Successor requirement that mandates customers be on TOU rates.
- Rules are set for allocation of a project's output and VNEM credits.
- Some consumer protection rules are imposed, with others to be developed in a different phase of this proceeding.
- Customers of CCAs and direct access customers may also participate.
- PG&E, SCE and SDG&E are directed to file tariffs to implement the program.

The following sections discuss specific elements of the adopted Community Solar program.

7.5.1. Customer percentage requirements

Low-income customers

Joint Solar Parties propose that for the life of the project, 10% of each project's capacity would be allocated to low-income customers who live within DACs. The remaining 90% of project capacity would be open to non-CARE residential customers, although those customers must still be located within the

bounds of a DAC as defined by the Commission. CEJA/SELC does not include a requirement for a specified percentage of low-income customers, instead allowing all customers in a qualified DAC to participate.⁴²

ORA recommends that only low-income customers should be eligible for DAC VNEM projects to ensure that low-income customers are not funding DAC projects for non-low-income customers. ORA believes it is unreasonable to require non-participating customers, including low-income customers, to fund programs that benefit non-low-income customers who happen to reside in a DAC. GRID agrees with Joint Solar Parties that a 10% low-income requirement is reasonable. IREC points out that although the Legislature could have chosen to specify only low-income customers should participate in specific alternatives designed for renewable energy growth among residential customers in disadvantaged communities, it did not.

D.15-01-051 at 68-69 provided initial direction on customer participation levels for the ECR program:

We direct the IOUs to base their assessment of community interest on the following criteria: (a) documentation that community members have committed to enroll in 30% of the project's capacity or documentation that community members have provided expressions of interest in the project sufficient to reach 51% subscription rate; and (b) a minimum of three separate subscribers to reflect the "shared" aspect of the program...

and

...we require that the IOUs ensure that at least at least one ECR project have a residential subscription of at least 50%. (footnotes omitted)

⁴² CEJA/SELC would allow CARE customers within a 0.5 mile radius of a qualifying DAC to participate.

One of the principles of this decision is that the purposes of Section 2827.1(b)(1) should be satisfied primarily through a focus on low-income households in disadvantaged communities. However, the statute does not limit participation to low-income customers. PG&E argues that since nearly half of customers in disadvantaged communities are CARE enrolled, fairness seems to dictate that, at minimum, roughly half of capacity from disadvantaged communities programs should be allocated to low income customers. While PG&E's numbers may not exactly reflect the makeup of the top 5% CalEnviroscreen 3.0 communities to be in the Community Solar program,⁴³ we agree with PG&E that the Community Solar program should substantially be for the benefit of low-income customers. In order to increase opportunities for low-income customers – who make up a substantial proportion of the population in disadvantaged communities -- to participate in the Community Solar program, we find that a 10% low-income requirement for the Community Solar program is too low.

TASC points out that the DAC VNEM proposal could adversely impact the rooftop solar market in disadvantaged communities. TASC is concerned that the Joint Solar Parties proposal could unintentionally give DAC VNEM developers an unfair advantage over the other developers competing for non-CARE customers' business in DACs. PG&E agrees that such a scenario is plausible and is concerned that many non-low-income customers residing within disadvantaged communities, when presented with the opportunity to achieve

⁴³ PG&E's analysis appears to be based on CARE customers in top 25% CalEnviroscreen 3.0 communities, as opposed to CARE and FERA-eligible customers in top 5% CalEnviroscreen 3.0 communities.

the same or greater savings would choose the remote solar option. Thus if this were the case, much of the solar adoption from a Community Solar program would be displacing rooftop solar installations that would have otherwise occurred.

While it is possible that Community Solar could be a more advantageous model for some non-low-income customers, the various limits on the program we adopt today should minimize unintended consequences. One of those limits is to ensure that there must be a significant percentage of low-income customers for any project. However, at the same time, it may not be feasible to limit Community Solar participation to low-income households in order to provide a sufficient ability to finance projects. As IREC notes, by allowing a renewable generation facility to serve multiple, diverse customers, the expanded VNEM proposals would be able to leverage the participation of non-low-income residential customers as a means to mitigate financing challenges that might otherwise arise in attempting to serve only low-income, and potentially higher risk, customers.

Therefore, in order to balance our objective for benefiting low-income households in disadvantaged communities with commercial viability, it is reasonable to require that at least 50% of each Community Solar project's capacity be allocated to low-income customers. For the purposes of the Community Solar program, we define low-income customers as CARE-eligible and FERA-eligible customers.⁴⁴

Non-residential customers

⁴⁴ This may also be expressed as "CARE and FERA-eligible customers."

The Joint Solar Parties proposal would allow (but not require) non-residential customers located in disadvantaged communities to subscribe to up to 25% of a Community Solar project's capacity. IREC contends non-residential customers can serve to mitigate financing risk associated with residential customer-focused VNEM facilities. ORA believes that both the Equity VNEM proposal and the DAC VNEM proposals direct project benefits away from the low-income residential customers who are the appropriate beneficiaries of Pub. Util. Code § 2827.1(b)(1).

In general, the purpose of this decision is to provide options for residential households (primarily low-income) in disadvantaged communities. CEJA/SELC opines that while the goal of the VNEM tariffs should be to expand distributed energy generation to residential customers in disadvantaged customers, it will not be possible to do so without some participation by non-residential customers to serve as hosts or electricity off-takers to balance the financial risks and capital limitations of low-income participants. Therefore, CEJA/SELC recommends that non-residential customers be allowed to participate, but be limited (either individually or in aggregate along with any other non-residential customers) to 25% of a VNEM project's capacity.

We agree with Joint Solar Parties that project viability and financing considerations require that uptake must be sufficient in order to allow the project to come to fruition. We also agree with CEJA/SELC that for practical purposes it would be helpful that the program not be limited to residential customers, although that group should be the primary focus.

We agree with CEJA/SELC that 25% non-residential participation is reasonable, as this level would help ensure project viability but still ensure that the primary beneficiaries are residential customers. This level contrasts with the

50% non-residential level allowed in the ECR program, as is appropriate to reflect the additional focus on low-income customers in the Community Solar program.

Host

A Community Solar development can be owned by a developer⁴⁵ and placed on a building or property, which may be owned by a separate entity (the host). A portion of the capacity of the project will be used by the host. Thus, it is necessary to ensure that sufficient capacity is available to the other customers in the community who would benefit from the project. Current VNEM tariffs require that the generating facility be sized no larger than the energy requirements of all benefitting accounts, including the host.⁴⁶ We will retain this requirement.

Joint Solar Parties propose that, for systems located on non-residential buildings, the host may claim up to 25% of project capacity in accordance with their proposed non-residential capacity limit. CEJA/SELC would allow 50% of the project's capacity to be used by the host, or 60% if the host is a governmental or non-profit entity.

In its January 7, 2016 "Opening Comments on the Proposed Decision of ALJ Simon Adopting Successor to Net Metering Tariff", TURN argues:

Authorizing VNEM for projects not co-located on a customer premises is problematic for several reasons. First, §2827.1(c)(1) authorizes a NEM

⁴⁵ The project could also be owned by the community through an entity which functions as the developer, or which purchases the project from the developer.

⁴⁶ See, for example, PG&E's VNEM tariff:

https://www.pge.com/tariffs/tm2/pdf/ELEC_SCHEDS_NEM2V.pdf

successor tariff only for “eligible customer-generators” and is therefore limited to a customer with a renewable electrical generation facility “that is located on the customer’s owned, leased, or rented premises.” Prior Commission decisions have recognized this statutory limitation.

Joint Solar Parties disagrees with TURN that the customer generator definition requires that all customers who benefit from the renewable generation facility in question be located on the same premise. They argue that the statutory definition of an eligible customer generator does not require the renewable electric facility offset all of the generator’s load, so it would appear that if some of the generator’s production is being consumed on a customer’s premise, then it meets this test. Joint Solar Parties opines that while the customer generator definition in §2827(b)(4)(A) would seem to preclude VNEM generators from being located on sites with *de minimus* loads, such provision is not an absolute barrier to the Commission’s adoption of the Joint Solar Parties’ proposal. They propose the Commission exercise its responsibility to interpret the Public Utilities Code consistent with its intent to ensure disadvantaged communities are afforded a reasoned opportunity to participate in NEM programs.

P.U. Code Section 2827.1(c) states:

Beginning July 1, 2017, or when ordered to do so by the commission because the large electrical corporation has reached its capacity limitation of subparagraph (B) of paragraph (4) of subdivision (c) of Section 2827, all new eligible customer-generators shall be subject to the standard contract or tariff developed by the commission and any rules, terms, and rates developed pursuant to subdivision (b). There shall be no limitation on the amount of generating capacity or number of new eligible customer-generators entitled to receive service pursuant to the standard contract or tariff after July 1, 2017. An eligible customer-generator that has received service under a net energy metering standard contract or tariff pursuant to Section 2827 that is no longer eligible to receive service shall be eligible to receive service pursuant to

the standard contract or tariff developed by the commission pursuant to this section.

P.U. Code Section 2827(b)(4)(A) states:

“Eligible customer-generator” means a residential customer, small commercial customer as defined in subdivision (h) of Section 331, or commercial, industrial, or agricultural customer of an electric utility, who uses a renewable electrical generation facility, or a combination of those facilities, with a total capacity of not more than one megawatt, that is located on the customer’s owned, leased, or rented premises, and is interconnected and operates in parallel with the electrical grid, and is intended primarily to offset part or all of the customer’s own electrical requirements.

We agree with Joint Solar Parties that a Community Solar facility need not consume all of the generator’s output, so that the generator would be able to provide output for other customers and still receive VNEM credits. As an upper limit, we will adopt the CEJA/SELC proposal to allow 50% of a project’s output to be used by the host, or 60% if the host is a governmental or non-profit entity. This is a higher amount than proposed by Joint Solar Parties, and should provide for more potential Community Solar projects. One purpose of the Community Solar program is to benefit the community itself (as opposed to simply being a residual benefit of excess capacity from the host), but there are more potential projects if we allow for greater consumption by the host. While we limit the Community Solar program in some ways to minimize the potential of cost shifts, providing a higher threshold for host consumption should not have any negative cost shifting impacts.

As a lower limit, it is necessary to adhere to the requirements of P.U. Code Section 2827(b)(4)(A) regarding an “eligible customer-generator.” This section should be read to require that an “eligible customer-generator” such as a

Community Solar project must involve a host which consumes more than a *de minimus* amount of the generation. For the purposes of the Community Solar program, we will define more than *de minimus* consumption by the host as consumption of at least 5% of the output of the project.

To summarize the requirements of this section:

- At least 50% of capacity must be allocated to low-income residential customers;
- No more than 50% of capacity, and no less than 5%, may be allocated to the host; however, if the host is a governmental entity, up to 60% of capacity may be allocated to the host;
- If the host is a governmental entity and utilizes more than 50% of the capacity, the low-income requirement is reduced to 40%;
- No more than 50% of capacity may be allocated to non-low-income residential customers;⁴⁷
- No more than 25% of capacity may be allocated to non-residential customers.⁴⁸

7.5.2. Customer and Project Location

The Staff proposal included a proximity requirement that participating customers must be within the same census tract (the Staff proposal does not consider limiting participation to a disadvantaged community).

The Joint Solar Parties proposal allows the host site and participating customers to be in any designated disadvantaged community, so long as they are

⁴⁷ Mathematically, it is not possible for 50% of a project's capacity to be allocated to low-income customers AND 50% of capacity be allocated to non-low-income customers unless the host utilizes zero capacity. Elsewhere in this order we require the host to utilize at least 5% of capacity. Therefore, for practical purposes, non-low-income residential customers are limited to 45% of capacity.

⁴⁸ As discussed elsewhere in this order, the host must utilize at least 5% of a project's capacity. Combined with the 50% requirement for low-income customers, 45% of remaining capacity may be utilized by either non-low-income residential customers OR non-residential customers, subject to the 25% limitation on non-residential customers.

both within the same IOU service territory. Joint Solar Parties argue that for a project serving renters and residents with lower credit ratings to be financeable, there must be a large pool of eligible customers to effectively mitigate the risk of customer default or relocation; a census tract is a relatively small area, containing an average of approximately 1,300 potential households. The size of the geographic area in which the host can provide credits to customers is critical to ensuring that enough prospective customers are available to serve that risk mitigation function, and a census tract is not large enough for that purpose.

CEJA/SELC recommends that a project must be located in a designated disadvantaged community census tract, and all initial customers must have primary residence in the same census tract as the project, or in a designated disadvantaged community census tract that shares a common border with the project census tract. Residents in a bordering census tract that is not designated as a disadvantaged community would not be allowed to participate. All customers must reside within the same utility service territory. In this proposal, customer qualification based on census tract (same or adjacent) includes all CARE and FERA-qualifying households in a half-mile radius around the boundary of all qualifying census tracts.

We will require that all subscribers be located in the same DAC as each other, and that they be located in a top 5% DAC based on CalEnviroScreen 3.0; that is to say, the 5% most disadvantaged communities in each IOU's territory. One of the purposes of the Community Solar program is to provide benefits to an identifiable community. Another purpose is that these benefits – financial and environmental – accrue to residents of communities which face high environmental burdens. Because we limit the overall MW available for the Community Solar program, as explained herein, it is important to ensure that the

program targets those who would most benefit from it. Thus it is necessary and appropriate to require the participants in a specific Community Solar project to congregate in highly impacted areas. While this limitation does limit the population available to contract for any specific Community Solar project, it provides a strong incentive for the affected community to band together.

We will not require that the project be located in the same DAC as the benefiting customers. CEJA/SELC would limit project locations to the same DAC as its customers, and we are concerned that this additional restriction would overly constrain project viability. At the same time, as Greenlining and others suggest, there are local economic benefits which would accrue to the community where the project is located. We also keep in mind our goal to limit any potential cost shifts through the scope and size of the Community Solar program.

In order to balance community benefits and not overly limit project location, we will require projects to be located either in or nearby a community with eligible customers. Consistent with statutory guidance to provide local benefits, we will require projects to be located in a top 25% DAC based on CalEnviroScreen and not more than 5 miles from the top 5% DAC where the customers are located. In addition, in order to enable virtual net energy metering, we will require the projects to be in the same IOU territory as the customers of the project.

Customers in a San Joaquin Valley community identified in R.15-03-010 would also be eligible to participate in the Community Solar program, even if not in a top 5% DAC. The Commission opened R.15-03-010 pursuant to P.U. Code Section 783.5, which seeks to increase access to affordable energy in disadvantaged communities in the San Joaquin Valley. Section 783.5 directs the

Commission to evaluate the economic feasibility of extending natural gas service, increasing subsidies in electricity, and other potentially economically feasible energy options. D.17-05-014 adopted a methodology to identify communities in compliance with the requirements of Section 783.5. The communities identified in that docket are also disadvantaged communities, but may not correspond exactly with the definition otherwise used for Community Solar eligibility.

PG&E claims in opening comments that both the Equity VNEM and DAC VNEM are:

nothing more than an expansion of free wheeling service [and] to the extent that it allows generation in one location to serve remote load is essentially *de facto* Direct Access, in which the energy supplier gets free wheeling service. Moving power from a generator to load located nearby involves wheeling, and both FERC and the CPUC have rejected proposals for providing such service without paying for all the necessary elements of such service, including transmission costs.

CEJA/SELC states in reply comments that both its proposal and the Joint Solar Parties' proposals can be explicitly limited to distribution-grid projects to avoid wheeling electricity through transmission lines. Joint Solar Parties states in reply comments:

As a practical matter, electricity from a virtual net metered system will not be wheeled to customers, because as net metered projects, these projects will go through a Rule 21 interconnection process and be sited on the distribution system. Thus unlike wholesale generation that is transmission tied, these systems will be distribution tied and therefore situated close to load. The generation will be consumed by nearby load and may well offset distribution costs that would otherwise be driven by load growth in that area.

The Community Solar program is not intended to constitute Direct Access or involve transmission wheeling. As our purpose is to meet AB 327's purpose of developing customer-driven distributed generation, we will specifically restrict Community Solar projects to facilities that are interconnected to the distribution grid and require the projects to go through a Rule 21 interconnection process.

7.5.3. Project Ownership

CEJA/SELC recommends that a majority of the project should be owned or controlled by either (i) residents of disadvantaged communities, directly or indirectly via any entity, or (ii) a nonprofit or government entity.

Joint Solar Parties state in reply comments:

One of the major deficiencies of TURN's and other GTSR program-based proposals is that they preclude the opportunity for community ownership or control of projects. While our DAC VNEM proposal doesn't ensure community ownership, the VNEM tariff allows for a project to allocate the benefits of that community-owned project to members of the community that are not located on the same premise as the generator or adjacent to it.

We appreciate that there are community benefits to requiring local ownership and we encourage local ownership of Community Solar projects if feasible. However, we will not set a requirement for project ownership, but rather leave this to the market and communities to determine. In this way, a project could be owned by the community with a relationship with the host, or a project could be owned by developer with a relationship with the host.

Aside from being administratively burdensome and difficult to verify, it is likely that a greater number of projects will materialize if fewer restrictions are placed on project ownership because such restrictions would be likely to increase

project costs and viability. Instead, we prefer to maximize potential projects in order to provide the benefits of Community Solar to low-income residents in disadvantaged communities. At the same time, the Community Solar program is set up to encourage community-based ownership of projects by requiring that all customers be in the same DAC and that a large percentage of customers be low-income. In this way, it is likely that communities would need to band together to work with a project to ensure a viable arrangement.

7.5.4. Program and Project Size

Project Cap

Joint Solar Parties propose that individual DAC VNEM projects be a maximum size of 5 megawatts, with no minimum size requirement. They contend that this maximum size requirement strikes a balance between allowing projects that can significantly decrease costs through economies of scale and keeping projects to a size that can be sited in a variety of types of DACs, so that residential customers in DACs have more options for choosing projects located near them.

CEJA/SELC proposes that a qualified project would have nameplate generating capacity that does not exceed 1 megawatt. CEJA/SELC argues that this limit is meant to address unique barriers to projects under 1 megawatt in size, and specifically those based on community assets such as schools and churches. CEJA/SELC recommends that VNEM tariffs for disadvantaged communities should not have a minimum size requirement or have to meet other requirements that impose size minimums such as needing to have a CAISO generator identification.

We consider the project size issue in the context of the overall scope of the Community Solar program. The utilities' March 24, 2017 filings provide some

useful new data regarding how many residential meters are located in DAC census tracts in each IOU service territory, as defined by CalEnviroScreen. Even with three adjoining census tracts and assuming that: 1) 25% of the project is subscribed by a nonresidential anchor customer and 2) there was a 5% residential participation rate throughout those three census tracts, there would only be enough demand to support a single project of approximately 1 MW. While we do not know what the parameters of potential participation in any particular Community Solar project would be, some projects would likely not be possible if we set a lower size limit.

On the other hand, it is necessary to set an upper limit on project size. Given the limited total program size, it is possible (although unlikely given the constraint that all customers must be in the same top 5% DAC) that some projects may be larger in size. If only a few projects take up all of the capacity of the program, other potential projects in top 5% DACs who wish to participate may be left out. Therefore, we will set the upper limit of the size of any one project to 30% of the total capacity in that IOU's Community Solar program or 3MW, whichever is larger.

Program Cap

We appreciate PG&E's argument that a large percentage of its customers could potentially be eligible to participate in Community Solar under the Joint Solar Parties proposal. PG&E claims that allowing for this possibility could lead to a significant cost shift to non-participating customers.

Above, we have limited the scope of potential projects in terms of location. In order to provide opportunities for Community Solar benefits but keeping in

mind our objective of minimizing any potential cost shifts⁴⁹, we will also cap the size of the program.

There is no specific proposal on the record for how to develop this cap; parties either propose no program at all or no cap. We look to other related programs for guidance. We also look to the DAC Green Tariff program approved in this decision, above. For that program, we place a cap of 70 MW for PG&E, 70 MW for SCE and 18 for SDG&E. It is reasonable to place a cap on the Community Solar program which is smaller than the cap for the DAC Green Tariff. It is unclear what the overall uptake will be for the program, and what impacts the program will have. It makes sense to develop a cap which is high enough to allow most or all communities which want to participate to do so, but guard against unforeseen circumstances.

According to the U.S Census Bureau's 2010 Census Tallies of Census Tracts, Block Groups & Blocks⁵⁰, there were 8057 census tracts in California at that time. The Community Solar program is limited to the top 5% of census track per CalEnviroScreen 3.0, which is approximately 400 census tracts. Not all of these census tracts are in PG&E, SCE or SDG&E territory. Nevertheless, assuming that 10% of these census tracts develops a Community Solar project of on average 1 MW⁵¹, the total size of the program would be 40 MW. Using the same ratio as used for the DAC Green Tariff program, a cap of 18 MW for PG&E,

⁴⁹ As noted above, we do not make any determination here about whether any cost shift will occur or, if so, what the magnitude may be.

⁵⁰ <https://www.census.gov/geo/maps-data/data/tallies/tractblock.html>.

⁵¹ As discussed above, a rough analysis show that it may be difficult to achieve a project size above 1 MW.

18 MW for SCE and 5 MW for SDG&E would seem to provide a sufficient ability for the Community Solar program to develop over the next few years. If it appears this cap may be reached, we would entertain a Petition to Modify this decision to reconsider this cap upon analysis of the impacts of the program to that point.

7.5.5. Rate Issues

Per D.16-01-044, customers of the three large IOUs who enroll in NEM tariffs (including VNEM) after each utility reaches its respective NEM cap must take service under the NEM Successor Tariffs. Under NEM tariffs, participating customers receive a bill credit for excess generation that is exported to the electric grid during times when it is not serving onsite load, offsetting energy costs. On a month-to-month basis, bill credits for the excess generation are applied to a customer's bill at the same retail rate (including generation, distribution, and transmission components) that the customer would have paid for energy consumption according to their otherwise applicable rate structure.

NEM customer-generators must pay the same non-bypassable charges for public services as other IOU customers, which includes Department of Water Resources' bond charges, the public purpose program charge, nuclear decommissioning charge, and competition transition charge. NEM customer-generators are exempt from standby charges. VNEM is a tariff available to multitenant properties that enables an owner of such property to allocate a solar system's benefits to tenants across multiple units. Tariff rules allow the system owner to allocate bill credits between common load areas and tenants along a single service or multiple service delivery points. Otherwise the bill credits functions the same as the NEM program

Under the Joint Solar Parties proposal, CARE customers who take service would be required to take service under the NEM Successor tariff, but would be exempt from the requirement to be on a TOU rate. CARE customers would have lower bill savings than non-CARE customers due to their lower rates. Joint Parties claim that moving onto TOU would reduce or eliminate these savings for many CARE customers and would introduce significant additional bill savings uncertainty for all CARE customers. All other customers (non-CARE residential customers located in DACs and non-residential customers located in DACs) would be required to take service on the NEM Successor tariff and be on a TOU rate. Under this proposal, projects may be installed on non-residential buildings in DACs with on-site load, or they may be located on buildings, brownfields, landfills or other locations where the only load associated with the generating account meter is station power. The utility will not pay the project owner for the electricity directly; rather, the project will generate kWh credits that can be used to offset the consumption of the subscribers to the project.

CEJA/SELC supports the Joint Solar Parties proposal of full retail rate credit based on the NEM Successor structure for DAC VNEM (although not for its Equity VNEM proposal). CEJA/SELC also advocates that customers remain on existing tiered rates, with no interconnection fees and no non-bypassable charges assessed on VNEM usage. However, CEJA/SELC does not believe that this rate structure would be satisfactory for smaller projects or projects owned by individuals or entities with low or zero tax liability in disadvantaged communities. CEJA/SELC estimates that its proposed Equity VNEM projects are likely to cost about at least 4 cents/kWh more than larger projects due to various restrictions on scale and scope. CEJA/SELC therefore proposes several other rate

features which would result in greater discounts and more affordable bills for customers.

ORA recommends that any form of net energy metering tariff the Commission approves for DACs should maintain the same tariff structures from D.16-01-044 that would apply to low-income customers. Should the Commission approve any VNEM proposal, ORA recommends the low-income customers should be afforded the same treatment and be exempted from interconnection fees⁵², but be required to pay non-bypassable charges.

TURN believes that the CEJA/SELC and Joint Solar Parties proposals will create a rate structure that will shift costs to other residential customers. TURN is concerned that providing a full retail rate credit for the output of a remote facility (i.e., a facility not in the same DAC as its customers) that does not have any impact on distribution or transmission costs of service will result in a revenue shortfall, and projects located in the same DAC as customers still have distribution costs which will be recovered from non-participating ratepayers.

The Community Solar program we adopt is intended to provide significant benefits to participating customers in disadvantaged areas who may not be able to access other green options, or can only acquire funding for a Community Solar option. The benefits include contributing to the green economy and reduction of harmful pollutants, as well as potential community economic benefits such as jobs. To obtain these benefits, low-income customer participants – as well as other participants who are needed to promote project viability – need to experience clear cost savings.

⁵² Note that D.16-01-044 exempts SASH customers from interconnection fees, but not all low-income customers.

SDG&E contends that the Commission's Rate Design Principles require that even where cross-subsidies are justified, the subsidies must "appropriately" support explicit State policy goals.⁵³ We agree with SDG&E that the subsidy must be designed "appropriately" in order to ensure adherence to other policy imperatives such as ratepayer protection and encouragement of economically efficient decision making. SDG&E also argues that the subsidies resulting from the proposed VNEM expansion fail this test. We do not agree. SDG&E's analysis is based on the Joint Solar Parties and CEJA/SELC proposals. We do not adopt these proposals (although they are starting points for our deliberation).

We will require NEM Successor credits for Community Solar customers, as with VNEM. We agree with ORA and others that the Commission should maintain the same tariff structures from D.16-01-044 for NEM programs that would apply to low income customers, including use of the NEM Successor credit. Concerns stated by SDG&E, TURN and PG&E regarding potentially large subsidies stemming from this credit have been mitigated as discussed throughout this decision. The Community Solar program we adopt is limited in size and scope in several ways, including limitations to fewer communities than proposed by either CEJA/SELC or Joint Solar Parties, and overall limits on MWs both for the program and for each project. As discussed herein, the Community Solar program clearly and appropriately adheres to the statutory objectives of AB 327. By setting reasonable limits on the program, the Community Solar program also balances goals including ratepayer protection, benefits to low-income customers and project viability.

⁵³ See D.15-07-01, Rate Design Principle #7.

As with NEM and VNEM, Community Solar customers should receive the NEM Successor credit for usage associated with the output of the project.

Although the customers and the generator are no longer one and the same, the concept of Community Solar is essentially a limited extension of VNEM. While the customers will receive the NEM Successor credit for virtual usage associated with the project, they must also be on an electric rate for their utility service. As with the VNEM tariff, customers would remain on otherwise applicable rates.

CEJA/SELC additionally proposes a “floating CARE discount” – a combination of VNEM credits and CARE discounts -- which would result in a 30% discount from rates without non-VNEM rates. PG&E points out that the specifics of this proposal are not set out, and argues that it is not clear exactly what public policy objectives are being advanced by these adders or reducers. This proposal is complex and likely to be difficult to implement. While CEJA/SELC’s proposal on this point may have merit, we are unable to fully consider this proposal at this time.

CEJA/SELC proposes that Equity VNEM participants would pay no non-bypassable charges on VNEM usage. ORA contends the Equity VNEM proposal’s rate structure is inappropriate because it does not reflect the cost responsibility adjustments the Commission recently adopted in D.16-01-044. ORA is correct. Further, the CEJA/SELC proposal is inconsistent with the direction in D.16-01-044 that all NEM customers, including those participating in VNEM, should be responsible for paying non-bypassable charges. The Commission explicitly stated in the decision at 98-99 that VNEM systems should be subject to the same requirements related to non-bypassable charges as systems under the standard successor tariff.

In D.16-01-044, the Commission also exempted individual low-income NEM households eligible for the SASH projects from having to pay for interconnection fees. To provide significant discounts to ensure low-income customers can participate in the Community Solar program, we will continue our NEM policy of no interconnection fees.

Participating customers should also benefit from the charges they pay to the developer/host, or that are incurred as part of their ownership of the project. One of the concepts behind VNEM and the two major Community Solar proposals in this proceeding is that small, close-in solar projects may be able to generate electricity at a lower cost than the IOUs. While this is not a matter we can factually determine at this time, it is likely that the success of the Community Solar program will depend upon these projects' ability to provide relatively low-cost power. The customers will essentially pay the developer/host for generation instead of the IOU by paying via a power purchase agreement or a contracted amount to the developer/host and receiving a VNEM credit from the IOU. If the combination of these costs are lower than the rates these customers currently pay (or will pay under future rates) to the IOU, then customers will benefit.

Grandfathering Issues

D.16-01-044 provided that "customer-generators may continue to take service under the NEM successor tariff established by this decision for 20 years from the year of interconnection of the customer's system."

Joint Solar Parties propose that 20 years of grandfathering should be provided on the DAC VNEM rate available when the project was built. They argue this protection should be extended to customers of a DAC VNEM project regardless of when they subscribe to the project (and should apply to the DAC

VNEM tariff and not to the customer's underlying rate, as D.16-01-044 specified). For example, if a customer ends a subscription 5 years into the operation of the project, another customer should be able to subscribe for the remaining 15 years on the initially offered DAC VNEM tariff. In essence, the proposed 20 year grandfathering would be associated with the start of the project, not the individual customers. Without this regulatory certainty, Joint Solar Parties claim projects will not be financeable.

CEJA/SELC proposes a different type of grandfathering: Once a project or customer meets the requirements of being designated a qualified Community-Based Project or residing in a DAC, the project will continue as such for its useful lifetime, and a resident can continue to participate in the project even if the census tract they originally qualified in is no longer designated as a DAC or the resident moves within the same service territory. In other words, customers can take the associated VNEM credits with them if they move.

PG&E contends no customer need for grandfathering of the rate has been demonstrated, particularly since the customer will not have installed any solar equipment on his home, or been required to undertake any long term commitment. As a result, if the rules for VNEM over time change, or the rates in the VNEM schedules change, the then-current tariffs should apply. Similarly, if a customer who signed up to VNEM under NEM Successor then drops out and a different customer takes the original customer's place at a later time when an updated NEM is in place, the new customer should be on the updated tariff in place at that time. PG&E believes no need for any additional customer benefit has been demonstrated, or should be granted under this program.

We do not agree with PG&E that there is no need for grandfathering. It is important for projects to be financeable and grandfathering would likely enhance

the ability to finance a project. Without grandfathering, there is a significant risk for developers or community owners of projects that customers who sign up for Community Solar may not remain if there are significant rate changes over time; put another way, customers would likely sign up for Community Solar only if they have reasonable expectation that the rate structure would more or less remain in place over time.

We will adopt the grandfathering proposal of Joint Solar Parties. The CEJA/SELC proposal is flawed because it allows customers to remain in the Community Solar program even if they move out of the DAC. This is contrary to the intent of AB 327 which is focused on bringing green energy options to disadvantaged communities. As Joint Solar Parties proposes, it is reasonable to allow the developer (or the organization representing the community, if that is the ownership structure) to find other customers in the qualified DAC to sign up for the remaining portion of a 20 year tariff if a customer moves or otherwise declines to continue in the Community Solar program.

Unsubscribe Fee or Credit Check for Low-Income Residential Subscribers

Joint Solar Parties propose that CARE customers who subscribe would be permitted to unsubscribe or stop paying for their subscription at any time with no financial penalty, and to prohibit credit checks for low-income subscriptions attributable to the 10% low-income requirement.

CEJA/SELC recommends that the prohibition on credit checks only apply to the customers subscribed under the minimum low-income customer requirement, so that developers are not dissuaded from enrolling low-income customers beyond the minimum.

GRID observes that the proposed consumer protection measures appear as though they are designed to prevent a low-income family from having a negative

financial repercussion from their participation, which GRID sees as critically important. That said, GRID is cautious of any situation in which low-income families are expected to sign a long-term agreement with a developer that includes a financial liability without comprehensive review of the process and contracts conducted by stakeholders and the Commission.

Greenlining discourages requesting credit scores from any customer, especially those identified as low-income. Greenlining contends this would place a significant barrier to participation for many customers and is not necessary for the proposal's success.

We agree with parties that requiring credit scores will unnecessarily limit the participation of low-income customers. We will not require credit scores for CARE and FERA-eligible customers. Similarly, we will not require unsubscribe fees for CARE and FERA-eligible customers.

TOU Rates

Joint Solar Parties proposes exempting CARE customers from mandatory TOU rates, claiming that moving onto a TOU rate would reduce or eliminate savings for many CARE customers. CEJA/SELC proposes allowing all customers (CARE and non-CARE customers) to remain on tiered, non-TOU rates.

CEJA/SELC argue that TOU rates would likely reduce customer savings and increase uncertainty in the process of deciding whether to invest in solar, which would be a substantial barrier to growth. Thus allowing community solar customers this alternative to the standard tariff would allow the certainty in benefits and promote the type of growth created by the initial net energy metering tariff for residents outside of disadvantaged communities.

ORA recommends that the Commission not require low-income customers to take mandatory TOU rates, because there may be instances where forcing

these customers on mandatory TOU would yield the counterproductive result of increasing their bills. ORA points to the CalSEIA Petition for Modification of D.16-01-044⁵⁴, where they provided evidence that a number of low-income residents of Multi-Family Affordable Solar Homes projects would actually face a bill increase if they were subscribed to a VNEM project and mandatory TOU rates, as opposed to tiered rates without the VNEM project.⁵⁵ In the Petition, CalSEIA states:

SCE analyzed current VNEM customers enrolled in the MASH program in response to a January 17, 2017 Energy Division data request (see Appendix B). The analysis shows that if all of the customers were forced to take service under an applicable TOU rate, more than a quarter of them would pay higher bills than they would under non-TOU rates without solar.

CalSEIA further states:

not only would there be a large number of losers, but the results also show an 87% bill increase for the biggest losers. This near doubling of electricity costs would be a severe hardship for some low-income families.

Thus ORA argues that low-income customers should be subscribed to whichever rate is currently the default rate (which may be default TOU at some point in the future), with an opportunity to opt out to an alternative rate structure.

⁵⁴ See Petition for Modification of Decision 16-01-044 by the California Solar Energy Industries Association, et al., as It Applies to Mandatory Time-of-Use Rates for Residents of Multifamily Affordable Housing Utilizing Virtual Net Energy Metering (May 19, 2017), p. 4.

⁵⁵ See Petition for Modification of Decision 16-01-044 by the California Solar Energy Industries Association, et al., as It Applies to Mandatory Time-of-Use Rates for Residents of Multifamily Affordable Housing Utilizing Virtual Net Energy Metering (May 19, 2017), p. 4.

However, in their June 19, 2017 response to the CalSEIA Petition, the joint IOUs state: “SCE’s earlier data request response was incorrect and its updated response shows that 99% of SCE customers in a MASH VNEM arrangement benefit from TOU rates.”

SDG&E objects to the proposal to exempt participating CARE customers from the NEM 2.0 requirement to take service on a TOU rate. SDG&E contends the record of this proceeding does not support the theory that moving onto a TOU rate would reduce or eliminate savings for many CARE customers. SCE argues that eliminating the TOU requirement for CARE customers participating in VNM will undermine the changes implemented by the Commission in the NEM Successor Tariff proceeding to align the responsibility of NEM customers with those who do not have NEM.

In general, Community Solar customers will remain on the otherwise applicable tariff, and also receive VNEM credits. For most customers, the generally applicable tariff will at some point will be a TOU rate schedule. However, the Commission has determined that some exceptions should be made to this requirement. In D.17-12-022, our recent Solar on Multifamily Affordable Housing (SOMAH) decision in this docket, Conclusion of Law #6 states:

It is reasonable to exempt tenants participating in SOMAH from the requirement that applies to other customers using the NEM successor tariff to take service under a TOU rate. Tenants will still default to TOU rates when they are implemented for residential customers, but may choose to opt out of TOU rates.

The rationale in D.17-12-022 at 20 for this exemption is as follows:

We agree with TURN that the likelihood that the grid impact of an exemption of participating tenants’ accounts from TOU rates is likely small. At the same time, preliminary information filed in this proceeding estimates that very few VNEM customers are likely to be negatively affected by the transition to TOU rates. Given the

statutory requirements to provide protection from rate changes we find it reasonable to exempt participating tenants from the requirement applying to other customers using the NEM successor tariff to take service under a TOU rate. This effectively exempts participating customers from mandatory TOU. When default TOU rates are implemented for residential customers pursuant to D.15-07-001, participating tenants, like other non-NEM residential customers, may choose to opt out of TOU rates. (footnote omitted)

Similar logic applies for the Community Solar program, except that the Community Solar customers are not tenants of a multi-family building. As stated above, it is necessary to provide low-income customers with the ability to reduce their energy costs via the Community Solar program. It is not clear from the record how many customers would face increase costs from TOU rates combined with a Community Solar program, but there is a potential for some low-income customers to face significant rate increases in this situation. The CalSEIA Petition has not yet been acted upon by the Commission and we make no determination here regarding its merits; however, it is clear that potential negative effects of combining a shift to TOU rates with VNEM may discourage customers (especially low-income customers) from pursuing certain clean energy options. As with the SOMAH program, we need to be cautious and ensure that low-income customers do not face unforeseen negative consequences from multiple changes in rates. To the extent that moving to TOU would increase rates for some low-income customers compared to otherwise applicable rates, it is necessary to provide an exemption from mandatory TOU rates for CARE and FERA-eligible customers participating in the Community Solar program.

7.5.6. Customer, IOU and Developer/Host Relationships

Staff proposed that the developer may pre-allocate NEM credits to the eligible benefitting customer accounts. As part of the VNEM interconnection

application, the developer must submit a list of all benefitting accounts and their pre-allocated portion of the total system generation. For example, each benefitting customer account would be allocated a percentage of the total system generation, with allocations to all benefitting accounts not to exceed 100 percent of system generation. After NEM credits are generated, the credits would be allocated to the benefiting customer accounts in alignment with their pre-allocated portion.

The Joint Solar Parties' proposal does not specify the financial relationship between the project developer and the customer. The proposal centers on a VNEM tariff which could support a number of different project models. For example, if a nonprofit wanted to develop a project on a community center, pay for the project's construction and maintenance with philanthropic funds, and allocate credits to the customers in the surrounding area they would be currently unable to do so given the lack of a tariff that would allow for such a project.

D.15-01-051 at 61-67 describes the legal relationships surrounding the ECR Tariff. The decision establishes a Community Developer Agreement regarding the relationship between the developer and the customer:

Developer and customer are free to design their own transaction structure to maximize the goals of customers and developers, and to ensure that projects are financeable. However, the developer must take affirmative steps to protect customers, and is required to provide representations, warranties, and indemnifications sufficient to protect the IOU and its shareholder in the event of a dispute between the developer and the customer. Through this arrangement the developer could, for example, sell the customer the right to a portion of the facility's capacity, or set a price per kWh of energy assigned to the customer. The developer will also assign its right to payment under the PPA to the customer.

Direct sale of energy by the developer to the customer is not permitted.

In general, the contractual relationship between the customer and the developer or host will be a private transaction not subject to our regulation, and the amounts the customers pay to the developer will not be rate regulated. However, we must adopt certain parameters to ensure the IOU and the developer or host, as well as both participating and non-participating ratepayers, have a clear understanding of how generation output and VNEM credits are allocated. These rules are necessary to ensure that a project is neither oversubscribed nor unfairly benefits from VNEM credits. We will adopt the staff recommendations:

- 1) As part of the interconnection application, the developer must submit a list of all benefitting accounts and their pre-allocated portion of the total system generation.
- 2) Allocations to all benefitting accounts shall not exceed 100 percent of system generation.
- 3) After NEM credits are generated, the credits would be allocated to the benefitting customer accounts in alignment with their pre-allocated portion.
- 4) The host would be designated the default account and would receive excess NEM credits in the event that a benefitting customer's account is closed.

A similar set of rules would also apply if the community owns the project, such as through a non-profit organization.

Consumer Protections

GRID recommends that the Commission adopt consumer protection measures for low-income participants to eliminate the risk of a negative financial repercussion from their participation. GRID recommends using the SASH third-party ownership (TPO) requirements for consumer protection as a starting

baseline. GRID's opening comments to the December 8, 2016 *ALJ Ruling Seeking Comment on Consumer Protection and Related Issues* highlighted the consumer protection measures the SASH program provides. These include the prohibition of liens on homes, mechanisms to minimize the risk of solar system removal due to delinquent payments and requirements that third-party solar providers delineate how rate changes could impact power purchase agreements. ORA recommends the Commission provide similar financial protections for low-income residential customers who invest in a renewable energy system and also adopt similar consumer protection measures to help these customers better understand the financial agreements they are undertaking with a renewable energy source provider.

The MASH Coalition also recommends the Commission address safety issues, consistent with D.16-01-044, by requiring verified equipment be used. They have several other consumer protection recommendations including: warranties of 10 years on construction and 25 years for solar module operations; maintenance obligations to be held by the owners, including third-party owners; minimum performance standards, in the case of third-party ownership; and clear disclosure requirements, such as those in the SEIA model documents.

CSE and Joint Solar Parties express support for consumer protection measures as well, generally supporting the same or similar proposals as GRID and the MASH Coalition. The Joint Solar Parties further propose the Commission consider an information packet specific to community solar within the pending consumer protection measures track being addressed in this proceeding.

We agree that strong consumer protections must be in place to continue promoting the safety and reliability of customer-sited solar PV systems and to

ensure that customers – especially low-income customers – are not prey to unethical or problematic arrangements with developers that result in financial harm to the customer. As the community solar program will use a new NEM tariff, it is reasonable to include, at a minimum, the same safety and reliability consumer protections adopted for all other NEM successor tariffs.⁵⁶ Those are verification, as part of any interconnection request, that 1) all major solar system components are on the verified equipment list maintained by the California Energy Commission, and other equipment, as determined by the utility, should be verified by the applicant as having safety certification from a nationally recognized testing laboratory, and 2) that a warranty of at least 10 years has been provided on all equipment and its installation.

Some protections in the SASH program referenced by GRID are not directly transferable to the Community Solar program; for example, there is no solar system on individual homes which can be removed. That said, one important consideration is whether the Commission should protect vulnerable customers from consequences in the case they default on (or need to cease) expected payments to the developer or host. On one hand, it is desirable to protect vulnerable customers from credit risk or unnecessary fees. However, there may also be implications for the developer's ability to finance a community solar project if the developer cannot depend on payments from a substantive share of its subscribers.

To minimize potential financial hardships for customers, we required in this decision that the developer not impose any unsubscribe fees to a low-income

⁵⁶ See D.16-01-044, COL 27 and 28.

customer, as proposed by the Joint Solar Parties. As a result, a low-income customer would not be put in a precarious financial situation as a result of subscribing to community solar.

Another important consideration is whether the Commission can ensure that low-income customers that subscribe to a community solar project actually benefit from bill savings as compared to their pre-solar bill. No party suggests that the Commission regulate what the payment arrangement between the developer and subscribing customer is. However, Joint Solar Parties propose the Commission consider an information packet specific to community solar within the pending consumer protection measures track being addressed in this proceeding. An information packet specific to community solar customers would provide the proper education to enable low-income community solar subscribers to make informed choices about their expected bill savings and the feasibility of future community solar payments. We will consider further consumer protections related to the Community Solar program in a different phase of this proceeding.

7.5.7. CCA and Direct Access customers

D.16-01-044, the NEM Successor Tariff decision, stated at 100:

All the elements of the current treatment of DA and CCA customers should be maintained under the NEM successor tariff. These customers will be able to use the NEM successor tariff on the same terms as IOU customers. As is currently the case, the relevant IOU will credit the customer for the non-generation portion of the bill; the customer's electric service provider or CCA will credit the customer for the generation portion of the bill.

The CCA parties in this proceeding appear interested in working with a Community Solar program. PCE states:

PCE has spoken with its billing provider and, based on those discussions, PCE does not anticipate expanded VNEM raising any unique billing issues beyond a possible increase in VNEM participants. Because participation would likely increase, PCE anticipates a modest increase in cost from its vendor processing necessary billing changes, but PCE is willing to take on that cost burden if it stays modest to support expanded opportunities for its low-income customers to participate more directly in innovative renewable energy offerings.

MCE recommends that the proposal adopted by the Commission will need to have the ability to serve CCA customers residing in disadvantaged communities in order to meet the intended goals of AB 693.

We agree with MCE that qualified utility customers, whether their energy is served by the utility or by a CCA (or from a DA provider) should have the opportunity to participate in the Community Solar program. This is consistent with our approach in D.17-12-022, the recent SOMAH decision, which allows CCA customer participation if the CCA has a VNEM tariff. The same structure as adopted in D.16-01-044 would apply to the Community Solar program.

7.6. Implementation Tariffs

This decision adopts a Community Solar program. We have specified many of the parameters and details of the program. However, there are a number of further details which must be delineated before the program can go into effect. We will require PG&E, SCE and SDG&E to each file a tariff for the Community Solar program no later than 120 days after the effective date of this decision. The utilities should coordinate the details of the tariff filings to the extent feasible. In addition, the utilities should jointly convene a meeting or workshop, no later than 75 days after the effective date of this decision, open to all interested persons to gather input regarding the details of the Community Solar tariff.

8. Proposals for Future Consideration

We decline to adopt SCE's suggested pilot on paired solar and energy storage. In D.17-12-005, we adopted rules that will allow the use of energy storage with VNEM installations, whether or not they are located in DACs. Given this, we do not see the need for separate pilot to test out this type of program focused on DACs. We encourage parties to develop and propose other innovative approaches for increasing access to renewable generation in DACs.

9. Comments on Alternate Proposed Decision

The alternate proposed decision of Commissioner Guzman Aceves in this matter was mailed to the parties in accordance with Section 311 of the Public Utilities Code and comments were allowed under Rule 14.3 of the Commission's Rules of Practice and Procedure. Comments were filed on _____ by _____. Reply comments were filed on _____ by _____.

10. Assignment of Proceeding

Martha Guzman Aceves is the assigned Commissioner and Jessica T. Hecht, Valerie U. Kao, and Mary McKenzie are the assigned ALJs and Presiding Officers in this proceeding.

Findings of Fact

1. Section 2827.1(b) directs the Commission to develop a standard contract or tariff applicable to customer-generators with renewable electrical generation, as a successor to then-existing Net Energy Metering tariffs.

2. Section 2827.1(b)(1) requires the Commission to develop specific alternatives designed to increase in adoption of renewable generation in DACs.

3. The original NEM tariff and its successor adopted in D.16-01-044 were not designed to address the specific barriers to adoption of renewable distributed generation experienced in DACs.

4. The incentives provided in the NEM tariffs, including compensation at the full retail rate for exported energy and exemption from all charges imposed on other residential customers, have not been sufficient to ensure adoption of renewable distributed generation in DACs.

5. The CalEPA in partnership with the OEHHA, created the CalEnviroScreen tool to identify DACs; the current version of CalEnviroScreen is CalEnviroScreen 3.0.

6. CalEPA and the CARB have used CalEnviroScreen to fulfill the legislative requirement of identifying DACs for purposes of distribution of certain funds from the Greenhouse Gas Reduction Fund.

7. Financial barriers, including the lack of capital for an initial down-payment or lack of access to credit pose a significant barrier to solar adoption for low-income households in DACs.

8. The SOMAH program, adopted in D.17-12-022, provides an avenue for certain low-income customers to access clean solar electric generation, with a special provision to increase solar installation in DACs.

9. SASH provides a proven and successful model for expanding access to solar among low-income customers and for providing additional, non-energy benefits, such as job training.

10. Use of a single, statewide program administrator will improve consistency in program implementation and simplify communication about the program with potential participants.

11. A competitive bidding process utilizing an RFP is an appropriate mechanism for use in the selection of the DAC-SASH program administrator.
12. The Commission should choose a statewide PA for DAC-SASH through a competitive bidding process led by Energy Division.
13. Creation of a memorandum account will assist in tracking of DAC-SASH implementation costs.
14. Creation of a DAC-SASH balancing account will facilitate the collection and tracking of DAC-SASH budgets.
15. Renters in single-family homes currently have few options to participate in a solar program outside of one of the existing GTSR programs.
16. A DAC-Green Tariff will allow low-income customers access to a clean energy tariff program similar to one that exists for other customers.
17. A Green Tariff that provides a 20 percent discount off the generation portion of participating customers' bills will make renewable energy more affordable for low-income customers.
18. Creation of a DAC-Green Tariff balancing account will facilitate tracking the costs of the DAC-Green Tariff.
19. The DAC-Green Tariff is not a NEM program, and there is no mandatory TOU requirement for the existing Green Tariff program.
20. The current NEM program was adopted by the Commission in D.16-01-044 and is available to customers of PG&E, SCE and SDG&E.
21. The MASH program piloted the VNEM tariffs; the original intent of VNEM was to help low-income multifamily residents receive direct benefits of a building's solar system under VNEM. The Commission expanded VNEM to all multi-tenant, multi-meter properties in 2011.

22. VNEM has generally been available only to those customers living in multifamily housing properties where the property owner has chosen to invest in a photovoltaic system.

23. Low-income owners of single-family homes are generally not able to afford to install rooftop solar, and low-income renters are generally not able to persuade their landlords to install rooftop solar.

24. It is not possible at this time to determine if there would be cost-shifting in a Community Solar program.

25. If there is any cost shifting, it can be limited by the restrictions on the size, scope and parameters of a Community Solar program.

26. The more potential customers and the more flexibility for project developers, the more likely it is that viable Community Solar projects will come into being.

27. The Enhanced Community Renewables program informs the discussion about how to design the Community Solar program.

28. Allowing a Community Solar facility to serve both low-income and non-low-income customers, as well as a limited number of non-residential customers, improves potential project viability.

29. Limiting Community Solar project locations to the same DAC as its customers would overly constrain project viability.

30. D.17-05-014 adopted a methodology to identify disadvantaged communities in the San Joaquin Valley in compliance with the requirements of Section 783.5. The communities to be identified in that docket are also disadvantaged communities, but may not correspond exactly with the definition otherwise used for Community Solar eligibility.

31. There are benefits to disadvantaged communities in California if the owner/ host of the solar generating system is located in the territory of one of the three large electric IOUs, and located either within the same disadvantaged community as the customers it serves or within a top 25% CalEnviroScreen 3.0-designated disadvantaged community located no more than 5 miles away from the disadvantaged community it serves.

32. There are benefits to disadvantaged communities in California if all customers of a Community Solar project are located be in the same top 5% CalEnviroScreen 3.0-designated disadvantaged community or reside in one of the same San Joaquin Valley communities identified in R.15-03-010.

33. There are benefits to disadvantaged communities in California if a significant percentage of each Community Solar project's capacity must be allocated to low-income customers.

34. There are likely to be more Community Solar projects if a significant percentage of each Community Solar project's capacity may be allocated to non-low-income residential customers and non-residential customers,

35. There are benefits to disadvantaged communities in California if there are limits placed on the allocation of a Community Solar project to the host of a project.

36. Limiting the size of the Community Solar program to 18/18/5 MW for PG&E/SCE/SDG&E, respectively, will allow a significant number of projects to develop while guarding against unanticipated consequences.

37. The Community Solar program involves facilities that are interconnected to the distribution grid and required to go through a Rule 21 interconnection process.

38. It is likely that a greater number of Community Solar projects will materialize if fewer restrictions are placed on project ownership.

39. Community Solar projects may be owned by the developer/host or by the benefitting customers.

40. The number of potential customers for a Community Solar project is small and will likely support projects no larger than 1 MW.

41. It is possible (although unlikely) that only a few Community Solar projects would take up all of the capacity of the program so that DACs who wish to participate are left out.

42. Under NEM tariffs, participating customers receive a bill credit for excess generation that is exported to the electric grid during times when it is not serving onsite load, offsetting energy costs.

43. To obtain the benefits of a Community Solar program, low-income customer participants – as well as other participants who are needed to promote project viability – need to experience overall electricity cost reductions.

44. Requiring credit scores and requiring unsubscribe fees will unnecessarily limit the participation of low-income customers in the Community Solar program.

45. D.17-12-022 exempted participating customers from mandatory TOU rates for the SOMAH program benefiting low-income customers.

46. The IOU and the developer or host, as well as both participating and non-participating ratepayers, need to have a clear understanding of how generation output and VNEM credits are allocated in the Community Solar program.

47. There is a need to allow the developer (or the organization representing the community, if that is the ownership structure) to find other customers in the qualified DAC to sign up for the remaining portion of a 20 year tariff if a

customer moves or otherwise declines to continue in the Community Solar program.

48. Customers of a Community Solar project are vulnerable unless appropriate consumer protections are in place.

49. The Community Solar program is a NEM program which will use a new NEM tariff.

50. The NEM successor tariff includes safety and reliability consumer protections such as verification, as part of any interconnection request, that all major solar system components are on the verified equipment list maintained by the California Energy Commission, other equipment verified by the applicant as having safety certification from a nationally recognized testing laboratory, and that a warranty of at least 10 years has been provided on all equipment and its installation.

Conclusions of Law

1. Public Utilities Code Section 2827.1(b)(1) requires the Commission to ensure that customer-sited renewable distributed generation continues to grow sustainably and include specific alternatives designed for growth among residential customers in DACs.

2. H&S Code Section 39711 required the CalEPA to create a process for identifying DACs for purposes of investment of funds from the GHG Reduction Fund.

3. It is reasonable to define a “disadvantaged community” for the purpose of the options adopted in this decision as a community that is identified, by using CalEnviroScreen 3.0, as among the top 25 percent of communities statewide, with the exception of the Community Solar program. In addition, 22 census tracts in the highest 5 percent of CalEnviroScreen’s Pollution Burden, but that do not have

an overall CalEnviroScreen score because of unreliable socioeconomic or health data, are also designated as DACs.

4. It is reasonable to target programs in DACs towards low-income customers.

5. It is reasonable to provide a variety of options for low-income households similar to the set of options already available to other customers.

6. The requirement in Section 2827.1(b) to ensure that the total costs of the NEM successor tariff are approximately equivalent to total benefits should not be applied in the development of alternatives for DACs.

7. It is reasonable to retain the structure and most program rules of the SASH program in a comparable program aimed at low-income single-family homeowners in DACs.

8. It is reasonable to require PG&E, SCE, and SDG&E to create memorandum accounts to track the start-up costs for the DAC-SASH program within 60 days of the effective date of this decision.

9. It is reasonable to adopt an annual DAC-SASH budget of \$10 million per year beginning on January 1, 2019, and continuing through the end of 2030.

10. It is reasonable that the \$10 million per year DAC-SASH budget starting should be collected first through available GHG allowance proceeds. If such funds are exhausted, it is reasonable that the DAC-SASH program should be funded through public purpose program funds.

11. It is reasonable to require PG&E, SCE, and SDG&E to track the annual DAC-SASH budget of \$10 million per year in balancing accounts starting in 2019.

12. It is reasonable to return DAC-SASH funding not allocated to specific projects or program expenses by the program end date of December 31, 2030, to ratepayers at the conclusion of the program.

13. It is reasonable to adopt a Green Tariff that provides a 20 percent discount from the generation portion of participating customers' bills.

14. It is reasonable to exempt customers participating in DAC-SASH from the requirement that applies to other customers using the NEM successor tariff to take service under a TOU rate. DAC-SASH participants will still default to TOU rates when they are implemented for residential customers, but may choose to opt out of TOU rates.

15. It is reasonable to require DAC-Green Tariff renewable generation projects to be located in any DAC within the same IOU service territory as customers.

16. It is reasonable to review the DAC-Green Tariff balancing accounts in participating utilities' ERRRA proceedings.

17. It is reasonable that the DAC-Green Tariff program funds should be collected first through available GHG allowance proceeds, and if such funds are exhausted, for the DAC-Green Tariff program to be funded through public purpose program funds

18. An additional clean energy program option should be developed to extend the benefits of net energy metering to customers in disadvantaged communities who cannot effectively take advantage of current solar offerings.

19. It is consistent with the intent of AB 327 and P.U. Code 2827.1(b)(1) to develop a Community Solar program as one of several "specific alternatives designed for [renewable energy] growth among residential customers in disadvantaged communities."

20. It is consistent with the intent of AB 327 that the benefits of a Community Solar program should substantially accrue to low-income households in disadvantaged communities.

21. There is not sufficient record to determine the level of cost shifting, if any, which would occur under a Community Solar program.

22. It is in the public interest to develop a Community Solar program in order to meet the intent of the Legislature in AB 327.

23. It is necessary and in the public interest that the scope of the Community Solar program be large enough to ensure project viability. Project viability and financing considerations require that uptake must be sufficient in order to allow the project to come to fruition.

24. It is necessary and appropriate for a Community Solar program to balance policy objectives of enhancing opportunities for primarily low-income customers in disadvantaged communities, enhancing project viability, and limiting any potential cost-shifting.

25. A Community Solar program should involve a solar array located on the rooftop of a building (or other feasible space on the property). A project may be owned by the owner of the building, or the owner may be the host for a project owned by a third-party. The project may also be owned in whole or in part by the benefitting customers other than the host.

26. A Community Solar program should be structured so that the project would sell an interest to community members, or community members would make a payment to the developer or host through a mutually agreeable arrangement. The utility would deliver the electricity, while customers would receive a modified version of VNEM credits and pay the otherwise applicable rate to the utility, except as otherwise determined in this decision. The host would also receive VNEM credits.

27. It is consistent with the intent of AB 327 to provide for renewable energy growth among residential customers in disadvantaged communities if a

Community Solar program requires the owner/host of the solar generating system to be located in the territory of one of the three large electric IOUs, and either located either within the same disadvantaged community as the customers it serves or within a top 25% CalEnviroScreen3.0-designated disadvantaged community located no more than 5 miles away from the disadvantaged community it serves.

28. It is consistent with the intent of AB 327 to provide for renewable energy growth among residential customers in disadvantaged communities if a Community Solar program requires all of a project's customers to be located in the same top 5% CalEnviroScreen-designated disadvantaged community or all reside in one of the San Joaquin Valley communities identified in R.15-03-010.

29. It is consistent with the intent of AB 327 to provide for renewable energy growth among residential customers in disadvantaged communities if there are minimum requirements on the allocation of a project's capacity allocated to CARE or FERA-eligible customers,

30. It is reasonable to set limits on the allocation of a projects' capacity to non-low-income residential customers and to non-residential customers.

31. It is necessary to adhere to the requirements of P.U. Code Section 2827(b)(4)(A) regarding an "eligible customer-generator" so that a Community Solar project must involve a host which consumes more than a de minimus amount of the generation.

32. It is reasonable for the purposes of the Community Solar program to define "more than de minimus consumption" by the host for the purposes of P.U. Code Section 2827(b)(4)(A) as at least 5% of the output of the project.

33. It is reasonable to set limits on the allocation of a project's capacity to the host.

34. The communities identified in D.17-05-014 should also be considered disadvantaged communities for the purposes of Community Solar eligibility.

35. It is reasonable to set an upper limit, but no lower limit, on the size of each Community Solar project.

36. It is reasonable to require NEM Successor tariff credits for Community Solar customers.

37. It is reasonable to exempt CARE and FERA-eligible customers in the Community Solar program from mandatory TOU rates.

38. It is necessary to ensure that a Community Solar project is neither oversubscribed nor unfairly benefits from VNEM credits.

39. It is reasonable to allow the developer (or the organization representing the community, if that is the ownership structure) to find other customers in the qualified DAC to sign up for the remaining portion of a 20 year tariff if a customer moves or otherwise declines to continue in the Community Solar program.

40. It is necessary to ensure that the Community Solar program has appropriate consumer and ratepayer protections are in place, similar to those for the NEM Successor tariff.

41. Pending further consumer protections, it is sufficient at this time to ensure that that all major solar system components are on the verified equipment list maintained by the California Energy Commission, ensure that other equipment has safety certification from a nationally recognized testing laboratory, and ensure there is a warranty of at least 10 years on all equipment and its installation.

42. It is reasonable and consistent with the NEM Successor tariff to require that a Community Solar project be sized larger than annual onsite load, but no larger

than the aggregated annual load, of all benefitting customer accounts including the host.

ORDER

IT IS ORDERED that:

1. The Disadvantaged Communities – Single-family Solar Homes program, as described in Sections 5.4 and 5.5 of this decision and summarized in Appendix A, is adopted, and shall operate from January 1, 2019, through December 31, 2030, in the service territories of Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company.

2. A single, statewide Program Administrator (PA) for the Disadvantaged Communities – Single-family Solar Homes program shall be chosen through a Request for Proposal (RFP) process, as outlined in Section 5.5.1. of this decision. Specifically, the Commission’s Energy Division will select the PA through an RFP process managed by Pacific Gas and Electric Company (PG&E) on behalf of the Commission. The RFP process shall be led by staff from the Commission’s Energy Division, and Energy Division will make the final decision on the winning bidder. The RFP process will be concluded and PG&E will enter into a contract with the chosen PA by August 30, 2018. The Energy Division Director may modify the August 30, 2018, deadline by letter for good cause.

3. Once selected, the Program Administrator shall hold one or more workshops with interested parties to receive input on appropriate methods for implementing the Disadvantaged Communities – Single-family Solar Homes consistent with the policy guidance provided in this decision.

4. Pacific Gas and Electric Company, San Diego Gas & Electric Company, and Southern California Edison Company may enter into an appropriate

non-disclosure agreement with the chosen Program Administrator if necessary to facilitate the sharing of customer usage data and other personally identifiable information needed for the operation and administration of the Disadvantaged Communities – Single-family Solar Homes program.

5. The Program Administrator (PA) for the Disadvantaged Communities – Single-family Solar Homes (DAC-SASH) program shall propose a plan for implementing and operating the DAC-SASH Program in compliance with this decision. By November 30, 2018, the PA shall submit a DAC-SASH Program Handbook for Commission consideration as a Tier 3 Advice Letter, subject to approval in a formal resolution. The Energy Division Director may modify the November 30, 2018, deadline by letter for good cause. The program implementation proposal shall include sections on at least the following subjects:

- a. Application procedures;
- b. Requirements for documentation of building and project eligibility;
- c. A program budget that includes line items for incentives and administrative activities, including but not limited to marketing, education, and outreach;
- d. Specific job training requirements consistent with those discussed in Appendix A;
- e. Specific energy efficiency requirements consistent with those adopted in Appendix A; and
- f. Data collection and reporting requirements, including report formats.

6. The Program Administrator shall work with Energy Division to develop reporting requirements and formats, including but not limited to, reporting of data on projects approved and completed, incentives reserved and paid for installations, job training, local hiring, and coordination with clean energy

programs. Energy Division may modify those requirements as needed to inform evaluation, measurement, and verification activities.

7. Every three years beginning in 2021, Energy Division shall select an independent evaluator through a Request for Proposal (RFP) process similar to that used to select the Program Administrator (PA). The consultant hired through this process will evaluate the effectiveness and efficiency of both the PA and the Disadvantaged Communities – Single-family Solar Homes program overall. Specifically, the Commission’s Energy Division will select the PA through an RFP process managed by San Diego Gas & Electric Company on behalf of the Commission. The RFP process shall be led by staff from the Commission’s Energy Division, and Energy Division staff will make the final decision on the winning bidder.

8. The Disadvantaged Communities – Single-family Solar Homes (DAC-SASH) program shall have an annual budget of \$10 million per year beginning on January 1, 2019, and continuing through the end of 2030. Each participating utility will contribute its proportionate share of this budget based on its relative percentage of retail electric revenue. Within 60 days of the effective date of this decision, Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company shall each file a Tier 2 advice letters establishing a balancing account to collect its proportionate share of the \$10 million per year DAC-SASH budget starting in 2019, and will collect those costs first through available GHG allowance proceeds. If such funds are exhausted, the DAC-SASH program will be funded through public purpose program funds through the conclusion of the program in 2030. DAC-SASH program funds will be reviewed in the annual Energy Resource Recovery Account proceedings. The utilities shall propose a mechanism to recover the

costs through distribution rates. Money not allocated to specific projects or program expenses by the program end date of December 31, 2030, will be returned to ratepayers at the conclusion of the program.

9. Up to \$500,000 per year from the Disadvantaged Communities – Single-family Solar Homes program budget may be used to reimburse Energy Division for activities related to implementation and oversight of the DAC-SASH program. Activities funded by this budget will include, but may not be limited to, any Energy Division activities related to the competitive bidding processes required in this decision and all evaluation, measurement, and verification activities.

10. Within 60 days of the effective date of this decision, Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company shall file Tier 1 Advice Letters to create memorandum accounts to track the start-up costs for the DAC-SASH program. The Commission will review these start-up costs in the companies' next Energy Resource Recovery Account proceedings.

11. The Disadvantaged Communities – Green Tariff program, as described in Section 6.4 of this decision, is adopted.

12. Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company shall fund the DAC-Green Tariff program first through available GHG allowance proceeds. If such funds are exhausted, the DAC-Green Tariff program should be funded through public purpose program funds.

13. Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company shall file Tier 3 Advice letters within 30 days of the adoption of this decision to create DAC-Green Tariff balancing

accounts. The companies will track all costs related to the implementation and operation of the DAC-Green Tariff program in these balancing accounts. These balancing accounts will be reviewed in each company's future Energy Resource Recovery Account proceedings.

14. Pacific Gas and Electric Company, Southern California Edison Company, and San Diego Gas & Electric Company will each file an application for review of the DAC-Green Tariff Program not later than January 1, 2021. That proceeding will include a review of both the program's costs and benefits, and may result in revisions to the tariff, if appropriate.

15. A Community Solar program is adopted with the following attributes:

- a. A project may be owned by the owner of the building, or the owner can be the host for a project owned by a third-party, or the benefitting customers may own all or part of the project.
- b. Projects must go through a Rule 21 interconnection process.
- c. The solar generating project must be:
 - i. located in the territory of Pacific Gas and Electric Company, Southern California Edison Company or San Diego Gas & Electric Company, and
 - ii. located either within the same disadvantaged community as the customers it serves, or located within a top 25% CalEnviroScreen 3.0-designated disadvantaged community located no more than 5 miles away from the disadvantaged community it serves.
- d. All customers of a project must reside in one of the same top 5% CalEnviroScreen 3.0-designated disadvantaged communities in a

utility territory, or all must reside in one of the same San Joaquin Valley communities identified in Rulemaking 15-03-010.

- e. The project's capacity shall be allocated consistent with the following limits:
 - i. At least 50% of capacity must be allocated to low-income residential customers;
 - ii. No more than 50% of capacity, and no less than 5%, shall be allocated to the host; however, if the host is a governmental entity, no more than 60% of capacity shall be allocated to the host;
 - iii. If the host is a governmental entity and utilizes more than 50% of the capacity, the low-income requirement is reduced to 40%;
 - iv. No more than 50% of capacity may be allocated to residential customers who are neither CARE-eligible nor FERA-eligible;
 - v. No more than 25% of capacity may be allocated to non-residential customers.
- f. Project size is limited to 30% of the total capacity in that utility's Community Solar program.
- g. Program size is limited to 18 Megawatts each for Pacific Gas and Electric Company and Southern California Edison Company, and 5 Megawatts for San Diego Gas & Electric Company.
- h. All Community Solar customers shall receive NEM Successor tariff credits and continue on the otherwise applicable rate, except as specified in this Order.

- i. CARE-eligible and FERA-eligible customers are exempt for the NEM Successor tariff requirement that mandates customers be on Time-of-Use rates.
- j. CARE-eligible and FERA-eligible customers shall not be required to provide credit scores to participate in the Community Solar program.
- k. There shall not be unsubscribe fees for CARE-eligible and FERA-eligible customers.
- l. As part of the interconnection application, the developer must submit a list of all benefitting accounts and their pre-allocated portion of the total system generation.
- m. Allocations to all benefitting accounts including the host shall not to exceed 100 percent of system generation.
- n. After NEM credits are generated, the credits shall be allocated to the benefitting customer accounts in alignment with their pre-allocated portion.
- o. The host shall be designated the default account and receive excess NEM credits in the event that a benefitting customer's account is closed.
- p. The developer (or the organization representing the community, if that is the ownership structure) may find other customers in the qualified disadvantaged community to sign up for the remaining portion of a 20 year tariff if a customer moves or otherwise declines to continue in the Community Solar program, but not outside of the qualified disadvantaged community.

- q. The developer shall provide representations, warranties, and indemnifications sufficient to protect the utility and its shareholder in the event of a dispute between the developer and the customer.
- r. In any contract or arrangement with a customer, the developer shall include a prohibition of liens on homes, warranties, and requirements that third-party solar providers delineate how rate changes could impact power purchase agreements.
- s. The Community Solar tariff shall include:
 - i. verification, as part of any interconnection request, that all major solar system components are on the verified equipment list maintained by the California Energy Commission
 - ii. verification by the applicant that other equipment, as determined by the utility, has safety certification from a nationally recognized testing laboratory
 - iii. a warranty of at least 10 years on all equipment and its installation.

15. Pacific Gas and Electric Company, Southern California Edison Company and San Diego Gas & Electric Company shall each file a Tier 3 Advice Letter no later than 120 days after the effective date of this decision to implement the Community Solar program adopted in Ordering Paragraph 14, including any proposed new tariffs.

16. Pacific Gas and Electric Company, Southern California Edison Company and San Diego Gas & Electric Company shall jointly hold convene a meeting or workshop, no later than 75 days after the effective date of this decision, open to all interested persons, to gather input regarding the details of the Community Solar Advice Letters and tariffs to be filed pursuant to Ordering Paragraph 15.

This order is effective today.

Dated _____, at San Francisco, California.

APPENDIX A

Disadvantaged Communities - Single-family Solar Homes Program

APPENDIX A**Disadvantaged Communities - Single-family Solar Homes Program**

The Disadvantaged Communities – Single-family Solar Homes (DAC-SASH) program offers solar incentives to resident-owners of single-family homes in eligible disadvantaged communities. A disadvantaged community (DAC), for the purpose of the DAC-SASH Program, is a community that appears in the top 25% of census tracts statewide when using the CalEnviroScreen 3.0 tool¹. In addition, 22 census tracts in the highest 5 percent of CalEnviroScreen’s Pollution Burden, but that do not have an overall CalEnviroScreen score because of unreliable socioeconomic or health data, are also designated as DACs. The program will pay incentives towards a solar energy system that is defined as a solar energy device that has the primary purpose of providing for the collection and distribution of solar energy for the generation of electricity, that produces at least one kilowatt of electricity. Only eligible households may receive program incentives and are encouraged to apply.

The goal of the DAC-SASH program is to provide opportunities for existing low-income customers within disadvantaged communities to overcome barriers accessing on-site, solar photovoltaic (PV) systems to decrease electricity usage and bills without increasing monthly household expenses. Public Utilities Code § 2871(b)(1) requires the Commission to “Ensure that the standard contract or tariff made available to eligible customer-generators ensures that customer-sited renewable distributed generation continues to grow sustainably and include specific alternatives designed for growth among residential customers in disadvantaged communities.”²

Major Responsibilities of the Program Administrator

The Program shall be administered by one entity for all applicants within the service territories of PG&E, SCE, and SDG&E.

¹ The Office of Environmental Health Hazard Assessment, on behalf of the California Environmental Protection Agency, CalEPA, develops and updates the CalEnviroScreen tool to evaluate effects of pollution on vulnerable communities statewide, pursuant to Public Resource Code § 71090. The CalEnviroScreen 3.0 is the most current version of the tool.

² All statutory references are to the Public Utilities Code unless otherwise noted.

The Program Administrator (PA) will be a single entity capable of providing statewide outreach, marketing and implementation activities for the program. The PA shall propose a plan for implementing and operating the DAC-SASH program in compliance with this decision. The PA shall file a Tier 3 Advice Letter, subject to approval in a formal resolution Letter, for a DAC-SASH Program Handbook. In addition, the PA must detail a program budget, data collection and reporting requirements, marketing and outreach plans, and a program implementation plan.

Once the DAC-SASH Program Handbook is adopted program adjustments may be proposed by the PA via a Tier 2 Advice Letter. Pursuant to party responses and Energy Division review of the advice letter, staff will determine if suggested program changes(s) require a resolution or modifications of a Commission order, and if so, the changes(s) could be considered by the full Commission, following notice to parties and an opportunity to comment.

Major Responsibilities of the Program Administrator

The PA will be selected through a competitive solicitation, specifically a Request for Proposals (RFP). RFP responses will be evaluated to determine whether potential the PA is adequately staffed with personnel who have the following qualifications and experience:

- Experience installing and/or designing solar PV systems
- Experience serving low-income populations
- Experience developing marketing strategies directed at low-income communities and accessible communications for persons with disabilities
- Experience creating finance packages appropriate for energy efficiency measures and/or solar energy systems
- Knowledge of the needs of low-income, single-family homeowners
- Language ability for major language requirements of eligible low-income populations
- Knowledge of CARE and FERA programs
- Experience and knowledge of energy-efficiency measures and energy audits at the residential level
- Ability to create partnerships with private sector financing entities

- Experience delivering programs through collaboration with multiple stakeholders (i.e., no preexisting constraints on partnering latitude)
- Knowledge of or experience with job training and/or workforce development programs, especially for low-income communities
- Data gathering and analysis skills

The successful bidder for PD must demonstrate the ability to perform the following functions:

- Establish relationships with low-income, single family homeowners
- Establish relationships with community-based organizations that serve low-income homeowners to conduct outreach
- Partner and work with solar installers to install PV on target homes, and partner with appropriate entities to develop “green job” training or other workforce development programs
- Hire multilingual staff to meet language requirements of low-income populations
- Hire staff that can develop communications accessible to persons with disabilities
- Educate low-income customers on solar technology and energy efficiency measures
- Create a marketing plan to attract eligible populations of all qualifying income levels
- Build organizational capacity to meet the demands of a statewide program
- Implement the strategy through a program implementation plan, through either a phase-in or statewide approach, to achieve program milestones
- Collaborate and partner with city and county housing agencies to create in-place, flexible financing packages
- Explore other funding options with corporations and government agencies
- Work with PG&E, SCE, and SDG&E to direct incentive payments to eligible recipients
- Work with the Commission’s Energy Division staff and an independent evaluator to monitor and report on the program’s progress
- Coordinate with the administrators of the CARE, FERA and ESAP programs on behalf of program participants, wherever necessary
- Provide customer support, including responding to complaints, problems, and maintenance needs

RFP responses will be evaluated based on the qualifications and abilities listed above as well as respondents marketing and outreach plans and program implementation plans. Program implementation plans should address financing approaches and methods for integrating solar investment with low-income housing rehabilitation. We encourage plans to include a workforce development plan that provides solar installer job training for low-income communities.

Program Reporting/Data Collection

The PA shall submit semi-annual reports to the Director of the Energy Division on progress of the DAC-SASH program. The semi-annual reports should include the following items, but Energy Division may modify the list as appropriate:

- Number of applications received
- Number of applications accepted
- Size of installations and expected annual output
- Total system cost in \$/kW before subsidy
- Progress of installations
- Geographic areas served
- Incentive dollars paid by each utility
- Installer used (if applicable)
- Applicant enrollment with the Energy Savings Assistance Program (ESAP)
- Administrative and marketing expenditures

The PA shall submit to an annual audit of program expenditures. The purpose of the audit is to ensure program funds are paid to legitimate and verified installations of solar energy systems on qualifying homes and that administrative funds are spent in a reasonable and appropriate manner. Energy Division should ensure this audit requirement is part of the PA's contract.

Program Incentive and Financing Structure

Incentives shall be paid only after the PA verifies that system installation is complete, and the solar energy system is operable, located in a program eligible disadvantaged community and application requirements have been met. The PA will ensure development of program materials and procedures, including; application forms in various formats and languages, where needed, and provide technical assistance with the application processes.

To qualify for incentives under this program a participant may apply once for a single-family property that is owner-occupied and located in an eligible disadvantaged community as defined within this decision. Participating customers must meet the income eligibility requirements for the CARE or FERA programs, and must enroll in the utilities' Energy Savings Assistance Program, if eligible.

Households can apply for a full-subsidy for systems that produce at least 1 kilowatt (kW) and not more than 5 kW (CEC-AC). The DAC-SASH program offers one non-declining incentive level of \$3/W, CEC-AC.

The applicant must submit a federal income tax return from the year prior to the application to support estimated tax liability and CARE eligibility.

The PA should seek low-cost loans through local government housing agencies or other private sources to cover the gap between the partial subsidy and total system cost.

Program Budget and Program timeline

The program funds will be collected on an annual basis, beginning on January 1, 2019, and continuing through the end of 2030. Annual collections will be \$10 million per year.,

The program will be funded by Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) according to the following percentages:

Utility	PG&E	SCE	SDG&E	Total
Percentage	43.7%	46%	10.3%	100%

The PA shall ensure that funding is allocated as follows across program functions:

Administration	10%
Marketing and Outreach	4%
Evaluation	1%
Incentives	85%

Program funds not allocated to specific projects, based on reviewed and approved project applications, by the program end date of December 31, 2030, the program end date, shall be returned to ratepayers.

Program Performance Requirements

To qualify for incentives, a system must meet a minimum performance requirement of 85% of the Design Factor (DF) based on a modified Estimated Performance Based Buydown (EPBB) calculation. For purposes of the DAC-SASH, the Design Factor shall be calculated without the geographic correction. If the Design Factor is less than 85% the system does not qualify for program incentives.

All other SASH program requirements not changed or modified for performance requirements shall apply here for DAC-SASH.

Customer Protection Standards for Third Party Owned Systems

The following Minimum Customer Protection Standards for Third Party Owned (TPO) systems shall apply:

1. Ensure program customers receive at least 50% of the savings, as compared to standard utility rates, from the solar generating equipment;
2. Reduce or eliminate barriers for customers with poor credit (low FICO scores) to qualify and participate;
3. Address concerns that homeowners may have about moving or selling their home during the TPO contract term;
4. Cover maintenance, operations, inverter replacement, and monitoring;
5. Prohibit liens on homes;
6. Minimize the risk to the low-income customer that the solar system would be removed for delinquent payments;
7. Ensure that all costs are apparent and upfront and that there is no risk that the TPO deal would result in an additional financial burden to the family;

8. Standardize financial terms for low-income customers where possible;
9. Protect the customer against terms that could change after contract signing;
10. Require that TPO agreements note the potential for additional costs associated with the contract, if applicable;
11. Require the TPO provider to clearly explain that rate changes will affect the economics of a power purchase agreement; and
12. Require that TPO agreement provisions spell out what happens in the event that the solar financing company defaults.

Energy Efficiency Requirements

The PA must conduct Energy Efficiency Training with each participating household. DAC-SASH applicants must enroll into the utilities' low-income energy efficiency program, referred to as the Energy Savings Assistance Program (ESAP), if eligible. The ESAP program is administered by the IOUs. If the applicant is eligible for ESAP, this will satisfy the requirement for the program energy efficiency requirement. Applicants may also include an energy efficiency audit of the subject property with their incentive application. The energy efficiency audit should be current within two years of the date of the application. The PA will review the audit along with the application to determine the maximum system size that can receive an incentive through the low-income incentive program. The maximum system size that can receive low-income solar incentives should be based on customer usage, adjusted based on an estimate of energy savings resulting from either:

- installation of all feasible ESAP measures (for those applicants who qualify), or
- if applicants do not qualify for ESAP, the PA shall review all other feasible measures if they were ESAP eligible.

While installation is not required, the PA should assist the applicant with financing for potential installation of energy efficiency measures identified by the applicant's audit along with their solar energy system.

The PA shall ensure incentives are not paid until either an ESAP assessment is completed or the energy efficiency audit has been reviewed and approved.

Program Evaluation, Measurement and Verification

Every three years beginning in 2021, Energy Division shall select an independent evaluator through an RFP process similar to that used to select the Program Administrator. The evaluation should include, but is not limited to, the following factors:

- Number of households served
- Cost of program per household (both incentive costs and total costs including program administration)
- Overall cost of program and cost of program components (i.e., administration, marketing, and incentives)
- The average amount (and percentage) energy bill is reduced per household (both in dollars and kWh)
- Whether participating households have performed an Energy Efficiency Audit, enrolled in ESAP, and had an evaluation for any energy efficiency measures implemented.
- Other, non-solar energy saving measures households have implemented along with their solar installation
- Whether or not the program increased household debt-load
- Customer satisfaction
- Turnover of homeowners in houses served and ongoing residence status of the home
- Languages used in outreach and languages spoken by participating households
- Location of households served
- Geographic coverage within eligible disadvantaged communities
- Participation levels of households served within eligible disadvantaged communities versus similar market sectors outside
- Percent of total CARE/FERA customers in 25% DACs served by the program
- Percent of total ESA customers served by the program
- Effectiveness of energy efficiency measures as related to PV systems
- Effectiveness of marketing and outreach efforts
- System performance and maintenance adequacy

- Implementation of minimum consumer protection standards for systems served by approved third-party operator's
- Effectiveness of job training activities
- Number of local job trainees
- Number of local job hires linked to the program

The program evaluation will rely upon Commission evaluation protocols as adopted for utility energy efficiency programs. In particular, the evaluation should draw upon:

- Impact Evaluation Protocols
- Process Evaluation Protocols

Job Training/Workforce Development Requirements

The DAC-SASH program will incorporate job training programs intended to promote green-collar jobs in low-income communities and to develop a trained workforce that will foster a sustainable solar industry in California. Each project installation is required to hire at least one eligible job trainee to work on the installation³

In order to align with the industry standards, the below categories are relevant job task analysis categories:

Directly work on solar installation

- Installing Electrical Components
- Installing Mechanical Components
- Completing System Installation
- Conducting Maintenance and Troubleshooting Activities

Project Design/Project Engineering

- Designing Systems

³ Eligible job trainees come from PV installation and design training programs including those offered by a California Community College or other PV-training programs offered to the public by local government workforce development programs, community nonprofits, private enterprises or the electrical workers union with 40+ hours of instruction and/or hands-on PV installation and design training.

Project management/coordination

- Managing the Project

Marketing and Outreach

The PA should develop a marketing and outreach program that meets the following specifications and is targeted to eligible DAC households :

- The PA should collaborate with local public and non-profit community based organizations or to find and attract eligible households.
- The PA should coordinate with utility CARE and FERA programs to identify qualifying low-income homeowners in eligible disadvantaged communities.
- The PA must create outreach materials and a plan to educate low-income customers on solar technology, on topics including but not limited to:
 - Proper inspection and long-term maintenance of the PV system in order to ensure energy bill benefits.
 - Various measures, including behavioral changes, energy efficiency, and solar, that recipients can use to manage their energy usage and bills.
 - Information regarding where state assistance for energy efficiency measures can be obtained.
 - How to apply for federal tax credits.

The marketing and outreach plan must align with the language needs of low-income communities, and meet the Dymally-Alatorre Bilingual Services Act of California (1973) that guides the provision of information to Low English Proficiency populations. The plan must also address the accessibility needs of persons with disabilities.

(END OF APPENDIX A)