

**Disadvantaged Communities – Single-family Solar
Homes (DAC-SASH) program**

**Semi-annual Progress Report
July 2022**



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1. Program Summary

The Disadvantaged Communities – Single-family Solar Homes (DAC-SASH) program is overseen by the California Public Utilities Commission (CPUC, or Commission) and provides incentives for photovoltaic (PV) solar systems to qualifying low-income homeowners located in disadvantaged communities¹ within the service territories of Pacific Gas & Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric (SDG&E), (collectively, the California investor-owned utilities or IOUs). GRID Alternatives (GRID), a non-profit solar contractor, is the statewide Program Administrator (PA) for the DAC-SASH Program. DAC-SASH is largely designed based on the Single-family Affordable Solar Homes (SASH) program, which has operated since 2008 and is also administered by GRID.

The goal of DAC-SASH is to provide opportunities for low-income homeowners within disadvantaged communities to overcome barriers to accessing on-site, solar PV systems to decrease electricity usage and bills without increasing monthly household expenses. Low-income families face myriad barriers to accessing solar, including financial; lack of marketing and outreach; educational and linguistic; distrust of outside entities and governments; and structural barriers like housing types and roof condition. GRID's experience has demonstrated that dedicated, carefully designed and

¹ Disadvantaged communities for the DAC-SASH program are defined as census tracts scoring in the top 25% statewide on the CalEnviroScreen 4.0 map. Homeowners in one of 22 additional census tracts that are in the top five percent of pollution burden but that do not have an overall CalEnviroScreen score because of unreliable socioeconomic data are also eligible.
<https://oehha.ca.gov/calenviroscreen/maps-data>

executed low-income solar programs can overcome these barriers and provide access to the program and meaningful community co-benefits.

GRID's program model represents a holistic approach for a hard-to-reach population. GRID's model for DAC-SASH is an integrated, turn-key model in which GRID takes responsibility for the entire project process from client outreach through contracting and system installation. The approach incorporates energy education, referrals to complementary services and workforce development/job training. This proven model ensures efficient program delivery while maximizing benefits to participating families and communities and maintaining iron-clad consumer protections for a vulnerable population.

In implementing the DAC-SASH program, GRID provides opportunities for local volunteers and job trainees to assist with installations, engage their communities, and to participate in CA energy programs. Every project includes a workforce development component, and opportunities for individuals to receive on-the-job training and access resources to assist in obtaining long-term employment. GRID partners with job training organizations (JTOs) around the state and will be focused on JTOs located in disadvantaged communities and job trainees residing in disadvantaged communities for the program's workforce development initiatives.

2. Background

Assembly Bill (AB) 327 (Perea), Stats. 2013, ch. 611 directed the California Public Utilities Commission (Commission) to develop a successor to then-existing Net Energy Metering (NEM) tariffs, and also required the Commission to develop specific alternatives designed to increase adoption and growth of renewable generation in disadvantaged communities (DACs). The Commission issued Decision (D.) 18-06-027 (Decision) in June 2018, which adopted three new programs intended to promote the installation of renewable generation among residential customers in DACs: the DAC-Single-family Solar Homes (DAC-SASH) program, the DAC-Green Tariff program, and the Community Solar Green Tariff program.



The Decision describes the intent with the creation of the DAC-SASH program:² “The DAC – Single-family Solar Homes (DAC-SASH) program, modeled after the Single-family Affordable Solar Homes (SASH) program, will provide assistance in the form of upfront 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. The incentives provided through

² D. 18-06-027: Alternate Decision Adopting Alternatives to Promote Solar Distributed Generation in Disadvantaged Communities. 21 June 2018, p. 2-3.

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.”

The Commission’s experience with a non-utility Program Administrator (PA) successfully managing the SASH program informed its decision to have the DAC-SASH program managed by a single statewide PA, selected through a competitive bidding process.³ The DAC-SASH PA Request for Proposals (RFP) was released on October 19, 2018 and the PA role awarded to GRID Alternatives (GRID) on January 4, 2019.

Eligibility Requirements: To qualify for DAC-SASH, homeowners must live in one of the top 25 percent most disadvantaged communities statewide using the [CalEnviroScreen](#)⁴ and be a billing customer of Pacific Gas & Electric (PG&E), Southern California Edison (SCE), or San Diego Gas & Electric (SDG&E). As of December 8, 2020, Decision 20-12-003 added tribal lands (or California Indian Country) as eligible geography for the program as well, in addition to DACs. Homeowners must also meet [income qualifications](#) denoted by the income guidelines of either the California Alternate Rates for Energy (CARE) program or the Family Electric Rate Assistance (FERA) program. Details for the DAC-SASH program’s eligibility and application processes can be found in the [DAC-SASH Program Handbook](#).

Both D.18-06-027 and GRID’s DAC-SASH Administration Contract with SCE delineate reporting requirements for this semi-annual progress report,⁵ which will be published by January 30 and July 30 each year and detail the progress of the prior two quarters.

³ D. 18-06-027, p. 33.

⁴ Homeowners in one of 22 additional census tracts that are in the top five percent of pollution burden but that do not have an overall CalEnviroScreen score because of unreliable socioeconomic data are also eligible. See D.18-06-027, Conclusion of Law 3.

⁵ D.18-06-027, at pg. A-4, and Task 6(D)(1-19) in SCE PO 4501098383 Statement of Work, April 2, 2019.

3. Q1-Q2 2022 Update

Overview: In the first half of 2022 the DAC-SASH Program made good progress, with almost 830kW (CEC-AC) of solar electric capacity interconnected for the benefit of over 215 low-income homeowners. The program's total installed capacity consists of over 5.3MW (CEC-AC) and since 2019 over 1,400 PV systems have been installed using DAC-SASH incentives. Almost 130 projects are reserved and awaiting installation and over 200 applications have been submitted and are currently under review. In the first half of 2022, GRID continued to keep public volunteers off program installations due to the ongoing pandemic, however group job trainings took place in-person and online. GRID reintroduced its corporate volunteer groups and sponsorships on program installation in early 2022, which is a way for industry professionals to gain exposure to the low-income solar market. In 2022 each GRID office continued to adapt its job training programming in a way that best suits their unique situation. Most were able to return job trainees to real-world install sites and GRID has continued to host Installation Basics Trainings (IBT) , virtual and in-person in 2022.

Activities: GRID HQ worked closely with the DAC-SASH 3rd party evaluator, Evergreen Economics, to provide information and clarifications as requested. Regional staff also partook in evaluator site visits and 1-hour evaluator interviews. Next, GRID brainstormed likely impacts of NEM 3.0 to its clients and their savings. To that effect, it worked with PG&E to create a process for more proactive CARE program sign-ups via a referral process; this will help prepare low-income households for NEM 3.0 impacts and ensures they benefit from the Programs available to them. GRID also submitted Advice Letter 17 to more easily oversize some systems in the future, to prepare for

load growth of various types. Ongoing program activities include refining quality control (QC) processes, third party inspections, and subcontractor management. To attract DAC-SASH clients, GRID continues to gather word-of-mouth testimonials from past program participants, attend key events, and send thousands of mailers and postcards. It is connecting with more tribal liaisons and tribal homeowners and has completed over 40 tribal DAC-SASH projects to date; tribal projects are often paired with GRID's Tribal Solar Accelerator Fund ([TSAF](#)) to ensure the installation is fully funded. Through Q2 GRID continued to meet with PG&E and SCE to move co-marketing and ESA referrals forward and continued to work with RHA leads in the SJV pilot. Overall, GRID is implementing the 2022 [DAC-SASH ME&O Plan](#) across the state.

4. Program Budget

The Commission authorized \$10M per year to be collected for DAC-SASH, beginning on January 1, 2019, and continuing through December 31, 2030. The Decision describes that the state's IOUs will first collect DAC-SASH program funding through available greenhouse gas (GHG) allowance revenues. In the event that there are insufficient funds available from those revenues, then the DAC-SASH program will be funded through customer rates via public purpose funds.⁶ The \$120M program is funded by Pacific Gas and Electric Company (PG&E), Southern California Edison Company (SCE), and San Diego Gas & Electric Company (SDG&E) according to these percentages:

⁶ D. 18-06-027, p. 31.

Table 1: Budget Allocations by Utility Territory

(\$ in millions)	PG&E	SCE	SDG&E	Total
Budget %	43.7%	46.0%	10.3%	100%
Budget through 2021	\$13.11	\$13.0	\$3.09	\$30.00
Remaining Program Budget (2022-2030)	\$39.33	\$41.40	\$9.27	\$90.00
Total Program Budget	\$52.44	\$55.20	\$12.36	\$120.00

Table 2: Budget through 2021: Allocations by Program Function

	Budget %	Budget through 2022 (\$ in millions)	Expensed Q1-Q2, 2022	Expensed prior to 2022	Remaining in 2022, Program Budget ⁷
Incentives	85%	\$34,000,000	\$2,422,071	\$11,618,088	\$19,959,841
Administration	10%	\$4,000,000	\$546,591	\$2,790,226	\$663,184
Marketing & Outreach	4%	\$1,600,000	\$165,587	\$1,092,645	\$341,767
Evaluation	1%	\$400,000	Budget resides w/ CPUC		
Total Program Budget	100%	\$40,000,000	\$3,134,249	\$15,500,958	\$20,964,792

⁷ Unused funds roll over to the subsequent calendar year, and any funds not allocated to specific projects or expenses by December 31, 2030, will be returned to ratepayers. D. 18-06-027, p. 31.

5. Program Growth and Project Details

Table 3 below summarizes the status of DAC-SASH applications through Q2 2022 based on the application approval date.

Table 3: Applications by Status and Utility Service Territory

Application Status	Number of Applications				Total kW (CEC-AC)	Total Incentives (\$ millions)
	PG&E	SCE	SDG&E	Totals		
STEP 1: Applications under review	89	117	2	208	769.6	\$2.31
STEP 2: Confirmed Applications/Reservations	70	53	4	127	494.4	\$1.48
STEP 3: Installed	899	465	49	1,413	5,301.7	\$15.89
Total	1,058	635	55	1,748	6,565.6	\$19.68

Data pulled 7/14/22. *Step 1 system sizing (kW) and incentives (\$) are estimates based on an average system size of 3.7kW CEC-AC and incentive level of \$3/W. Designs are not completed until the Applicant is confirmed to meet all program requirements, but typically >90% of projects in Step 1 will move forward to Reserved status.

Chart 1: Completed Projects by Quarter⁸

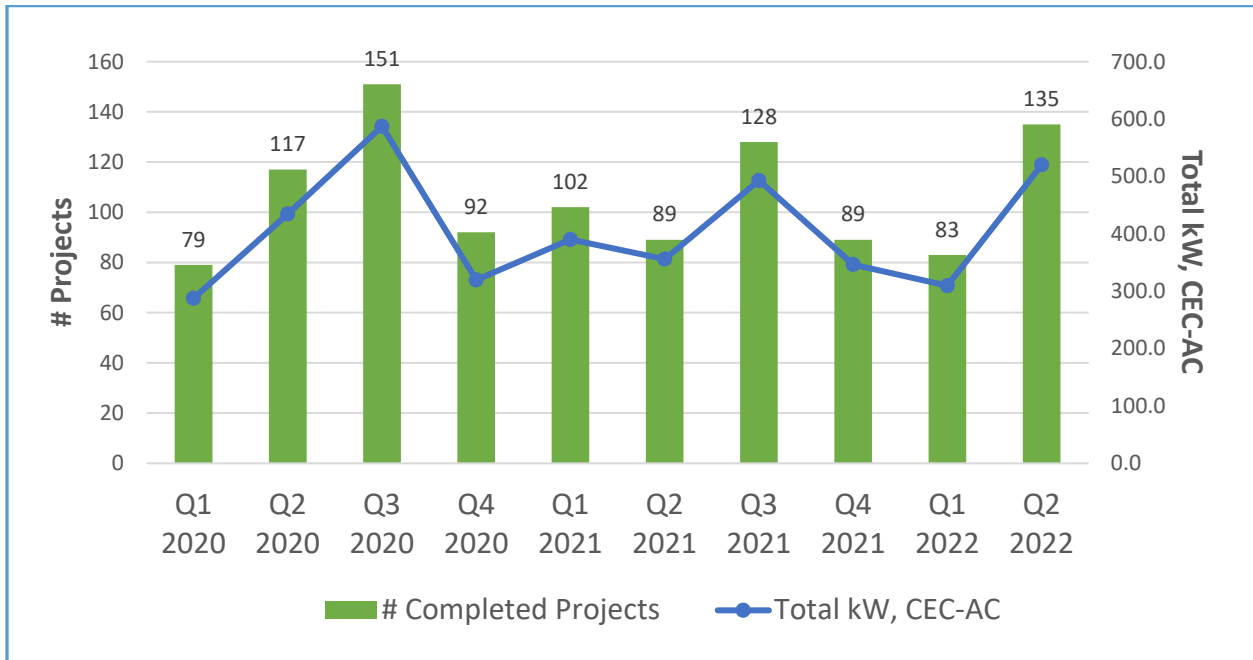
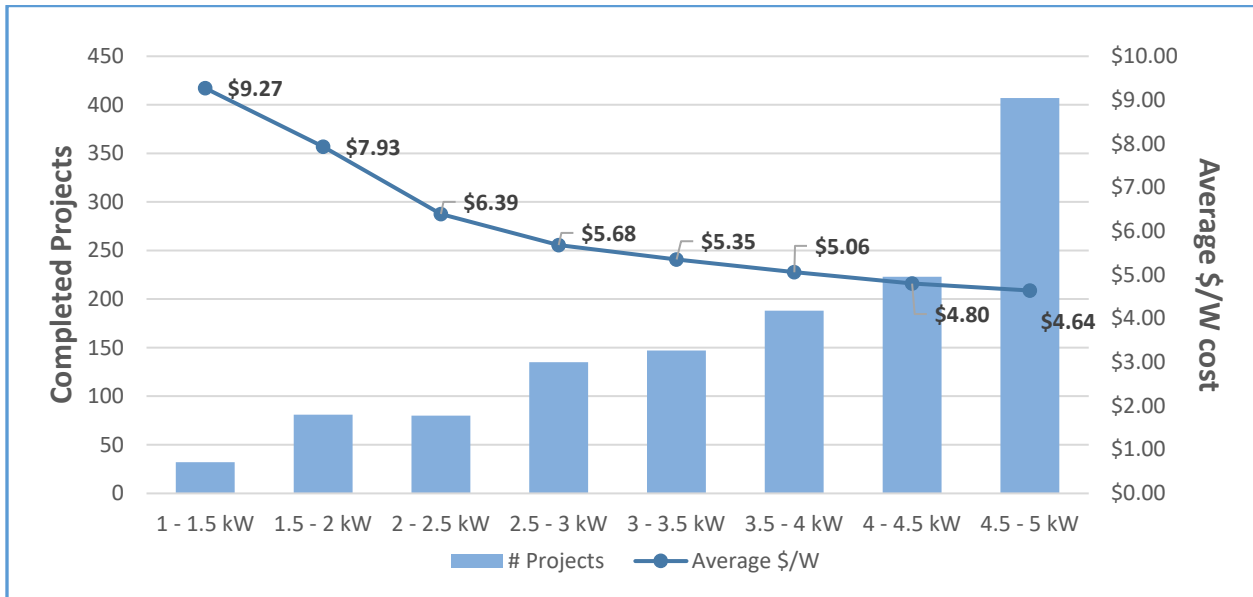


Chart 1 above illustrates the program’s progress in 2022, with over 200 projects completed and interconnected in the first half of the year. These projects represent 830kW (CEC-AC) in installed capacity and have an expected annual output of almost 1.3 million kilowatt hours.

Chart 2 below indicates that over 70% of all installed DAC-SASH PV-systems are 3kW (CEC-AC) in size or larger, with an average installed system size of 3.7kW (CEC-AC). Where the system size is not constrained by roof space, sizing is based upon the client’s annual usage (kWh) minus the energy efficiency savings the client may realize by adopting basic energy efficiency measures. Projects are capped at 5kW (CEC-AC).

⁸ For ease of viewing, 2019 is not shown here. For earlier years see charts here: <https://www.californiadgstats.ca.gov/charts/li/>

Chart 2: Completed Projects: System Size and \$/Watt cost



6. Incentives and Project Financing

The DAC-SASH program offers one, non-declining incentive level of \$3/W (CEC-AC). GRID's average cost to install DAC-SASH systems through 2022 is \$5.09/Watt (CEC-AC) and varies by system size (see Chart 2 above). This average system cost does not include all marketing and outreach expenses required to reach the program's target audiences and educate them about program benefits, nor does it include all of GRID's expense to provide no-cost job training and workforce development and education. The cost for DAC-SASH installations is higher than a general market installation because GRID brings teams of job training students and volunteers to assist with the installation, creating a teaching opportunity and a classroom on the roof for solar job trainees.

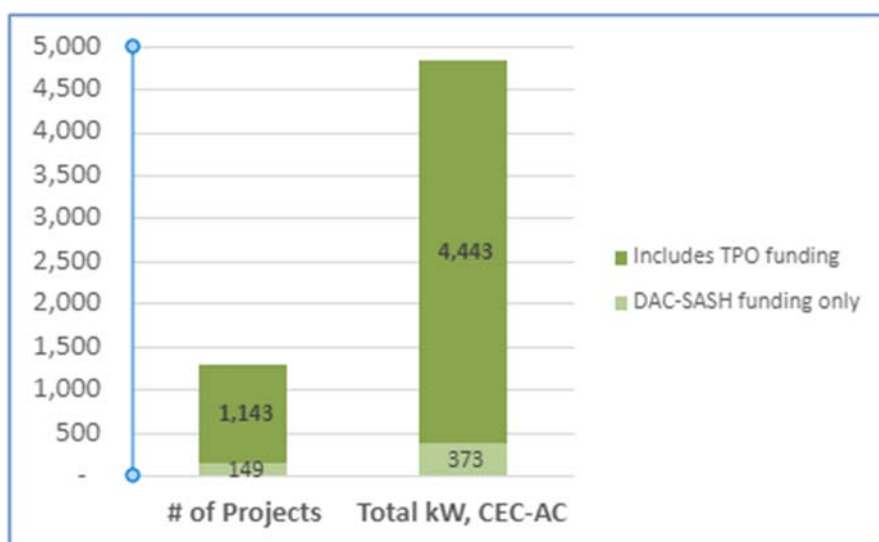
Because the incentive of \$3/W, CEC-AC covers ~60% of the average system cost, GRID must overcome a financing gap for families by contributing the organization's own fundraising dollars or other additional resources toward covering the gap, which allows more families to go solar with the Program.



GRID's contributions toward covering these financing gaps include general philanthropy, in-kind equipment donations, proceeds from a third-party ownership (TPO) model, and corporate sponsorships. Long-standing partnerships with major equipment manufacturers including Enphase Energy and SMA Solar help cover many clients' gap funding requirements. GRID expects to utilize philanthropic and in-kind

contributions to augment gap financing efforts in 2022 and beyond. Gap financing remains an obstacle for most low-income families to participate in the Program.

Chart 3: Projects with Third-party Ownership (TPO) Funding



Through its “families-first” TPO model, GRID is able to leverage the federal Investment Tax Credit (ITC) to help finance DAC-SASH projects, while providing additional benefits to participating families such as a performance guarantee, system monitoring, and 25-year warranty coverage. With Resolution E-5030 (September 12, 2019), the Commission approved GRID’s TPO model that was previously approved for the SASH program in Resolutions E-4719 (June 25, 2015) and E-4829 (March 2, 2017). The primary partner for GRID’s TPO model is currently Sunrun. As seen in Chart 3 above, of the DAC-SASH projects completed to date, almost 90% are third-party owned.⁹

⁹ GRID projects that cannot leverage the TPO model are due to the system size being too small to meet the TPO provider’s requirements, deed or land ownership documentation that does not meet the TPO provider’s requirements (such as projects on tribal lands), and/or a project partner/city/client that is unable or unwilling to approve a TPO ownership structure.

7. Marketing and Outreach



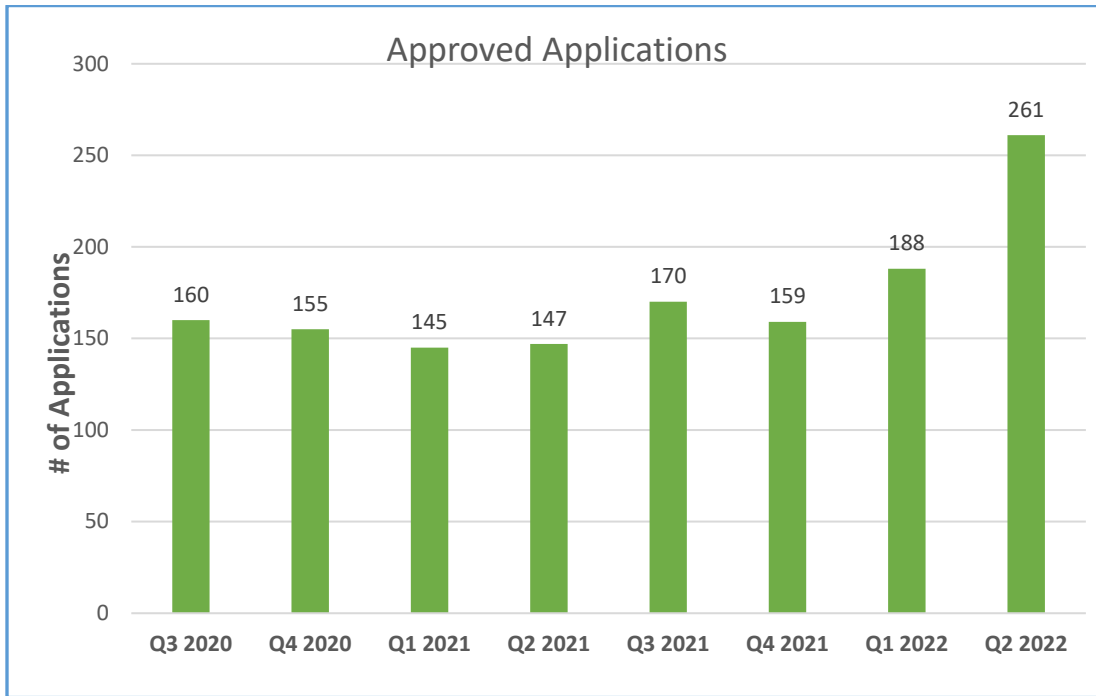
The Marketing, Education and Outreach (ME&O) plan for the DAC-SASH program can be accessed on GRID's website¹⁰ and provides details on planned ME&O activities, key performance indicators, and the program's ME&O budget. GRID assesses progress toward achievement of

its ME&O KPIs and submits an updated ME&O plan each calendar year. Below is a simplified overview of GRID's marketing strategies for the program.

GRID Alternatives has eight California regional offices, located in Oakland (PG&E), Willits (PG&E), Los Angeles (SCE), San Diego (SDG&E), Fresno (SCE/PG&E), Riverside (SCE), Chico (PG&E), and Sacramento (PG&E). Map 1 below shows the location of pending or completed DAC-SASH applications through 2021 (it will not be updated for 2022 and beyond). It also illustrates that GRID has qualified DAC-SASH applicants over a wide range of CalEnviroScreen DACs in IOU territory.

¹⁰ <https://gridalternatives.org/what-we-do/program-administration/dac-sash>

Chart 4: Approved Applications by Quarter



GRID’s marketing and outreach approach for the DAC-SASH program combines a recognized brand, data-driven targeting, community and institutional partnerships, and experience-based and flexible marketing and outreach activities. Consistent advocacy and assistance throughout the entire outreach process - and the lifetime of the solar system - is key to ensuring that language, physical ability, age and education level are not barriers to participation and that participants can make informed decisions and receive the greatest possible benefit from the solar system. In communities often targeted by predatory practices and scams, showing long-term investment in household and community benefit is a crucial component of the program. To this end, GRID combines in-community, in-language outreach and education with community and local government partnerships to ensure information reaches eligible households through a trusted source. In new cities or regions, strong

relationships with trusted community partners to co-market the program is GRID's primary strategy for developing trust with its target audiences.

GRID's educational messages are reinforced by a robust referrals program, local media, and easily accessible digital platforms including a DAC-SASH program summary and link on the IOUs' clean energy utility webpages.

Once a client has been approved for participation, they receive ongoing support from application to installation and interconnection, including referrals to complementary state and local programs (eg. the ESA program, CARE, and FERA). Following the installation project phase, GRID provides education and engagement, system online monitoring for its TPO systems, and access to phone support and troubleshooting throughout the expected life of the system. The aim is to deliver maximum impact and long-term benefit.

Client Experience: Ensuring a positive client experience and long-term investment in the community is key to continued program enrollment and impact, particularly as a significant amount of new program enrollees come from direct referrals from satisfied participants. To collect client feedback, GRID provides a participation survey after the installation of the PV-system, as well as an annual survey to monitor impact and satisfaction over the long term. Per the reporting requirements for DAC-SASH's Semi-Annual Progress Report, GRID includes in Appendix B a summary of participant survey results.

7.1 Utility referrals for Targeted ME&O¹²

Upon receiving the targeted customer profiles from each IOU in early 2021, GRID analyzed and organized the new data and strategized with GRID's regional Outreach teams about where and how to utilize these leads in the most impactful way. GRID received the next annual batch of eligible customer profiles in March and May 2022 (from PG&E and SDG&E). GRID prioritizes customer profiles with sufficient usage to also qualify them for the program's TPO financing and will continue to qualify clients based on the readiness of their home and roof for solar installation. GRID has requested that the IOUs add a Net Metering (NEM) flag to the leads provided.

In Q1 and Q2 GRID continued outreaching via print marketing to a portion of the PG&E and SDG&E leads, primarily with mailed postcards or letters; phone-banking has been put on pause in 2022. The leads were selected for no Net Metered billing, annual kWh usage is over 3,000kWh, and regions where construction barriers are known to be less prevalent. A summary of leads received is below, per the requirements of D.20-12-003.

of customer profiles provided by IOUs: Almost 10,000 DAC-located leads were received in spring 2022 (from PG&E and SDG&E), in addition to email co-marketing with SCE directly (GRID is unsure how many emails were sent). Some of these leads may be duplicates from those received last year.

¹² Decision 20-12-003 requires that each of the IOUs share potentially DAC-SASH eligible customer profiles or leads to GRID Alternatives once per year, starting in February 2021.

<https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M354/K045/354045228.PDF>

of customers outreached to: Over 7,100 leads received a postcard or mailer from GRID in Q1-Q2 2022, primarily to PG&E Central Valley leads. GRID's new email co-marketing campaign with SCE required much legwork from December through February to get it up and running. It launched in March 2022 and to date GRID has received 850 responses and 62 leads have converted to the project phase.

of installations resulting from outreach: It least 11 installations took place in 2021 and several installations are currently pending. It can take 2-6 months from initial outreach and application to the installation phase of a single-family project.

Uncertainty that may depress conversion rates: GRID keeps in mind that income is self-reported for CARE and ESA, whereas GRID actively verifies income using the most recent tax returns. In addition, these leads do not provide insight on roof quality or code issues that are major barriers in some regions.

SDG&E DAC leads : Of the 2,160 customer profiles received, 600 are more recent ESA enrollments or leads and thus are more actionable. Another 300 were received who likely already have solar (SDG&E has not provided the NEM rate so it is unclear). Of these, GRID will send 1,600 postcards in Q3 2022. From last year's postcard campaign, GRID received fewer than 30 responses, with several converted leads and one project that has been installed.

PG&E DAC leads: Of the 12,400 customer profiles received, 6,700 are located in a DAC by GRID's analysis and will receive emails in Q3 thanks to a new co-marketing collaboration between GRID and PG&E. In addition, GRID will do direct mail marketing in our North Valley and Bay Area regions in Q3, using some of the IOU leads shared. In Q2 over 7,000 postcards were sent to PG&E leads in the Central Valley area; 30 have responded and so far 11 have been converted into projects (with approved

applications). From a small 2021 postcard campaign there have been 30 lead responses and under ten installed projects in Stockton or North Valley.

SCE DAC leads: Roughly 10,300 useful leads were received in 2021, counting those customers that were enrolled in the ESA or CARE programs from 2018 forward and whose annual usage is over 3,000kWh.¹³ GRID did not harness this data in 2021 in part because its staff was focused on a SASH program deadline in its final year.

In 2022 GRID did not receive leads and instead worked closely with SCE to transition its SASH co-marketing partnership to DAC-SASH. For DAC-SASH, the email campaign is an automated and sophisticated 2-step email campaign sent out via a SCE subcontractor; this launched in March 2022. For DAC-SASH, co-marketing is proving helpful in creating high-quality leads, but due to an income limits that is far lower than the SASH program's, it has slightly lower conversion rates at 7.3% to date or 62 out of over 850 leads generated to date. Of these, roughly half became inactive so far, 11 have contracts signed or are moving forward to install and the others are either in the application or design project stage.

¹³ GRID received over 200,000 customer profiles dating back to 2002, but many of these will not be useful as the data and homeowner status will likely have changed in the past 10-20 years.

8. Job Training and Workforce Development



Job training is central to GRID’s mission and the DAC-SASH program delivery model.

GRID takes a holistic approach that integrates job training opportunities into every project and creates ladders of opportunity for individuals from all backgrounds to access well-paying jobs in California’s thriving solar industry. Every

project is a classroom for local job seekers, many coming from the same disadvantaged communities that the program is designed to serve. Through a combination of the program’s job training requirements and GRID’s voluntary initiatives, the DAC-SASH program is positioned to deliver impactful workforce development outcomes.

8.1 Job Training Requirements

Projects installed using GRID’s volunteer and job trainee-based model must meet one of the five categories described below. Projects installed with the Subcontractor Partnership Program (SPP) model must include at least one paid workday for job trainees.¹⁴

¹⁴ Additional information on these programs and requirements can be found at: www.gridalternatives.org/programs/workforce-development and in the DAC-SASH Program Handbook.

1. **Team Leader**¹⁵: GRID's Team Leader Program offers experienced volunteers more comprehensive, in-depth training to further develop their skills and increase employment opportunities in the growing solar jobs market. Team Leaders log a minimum of 40 hours on GRID Alternatives' installations, complete a suite of six certifications on technical skills, attend a leadership skills workshop, and complete two installations to sign off on skills with a GRID installation supervisor.
2. **SolarCorps Fellow**: SolarCorps opportunities at GRID Alternatives include fellowships in project management, system design, marketing and outreach, communications, job trainee and volunteer management, market development, construction, and fundraising. These are one-year paid fellowships that are based on the AmeriCorps program and are sometimes combined with additional funding from the Corporation for National and Community Service.
3. **Job Training Students (at least 3)**: Some of GRID Alternatives' in-house installations are reserved for job training groups of students from job training programs. These are students from community colleges, vocational high schools, or community job training programs that generally have completed a PV-classroom component, but utilize GRID's installation as the hands-on, real-world application of the skills they are learning in a classroom.
4. **Installation Basics Training (IBT) Participants (at least 3)**: GRID's Installation Basics Training (IBT) program awards trainees with certificates for industry-relevant skills learned and demonstrated in GRID's unique, hands-on training environment under the supervision of our professional solar installation staff. GRID currently offers 11 Skills Certificates that cover a variety of array and electrical skills, such as conduit bending and racking installations. To earn all 11 Skills Certificates, IBTs typically need to dedicate 130-300 hours in the field (8-20 complete installations).

¹⁵ The Team Leader program was approved in D 15-01-027, as one pathway for eligible job training in GRID's volunteer and job trainee model. The subsequent development of the IBT program (described on the next page) and expansion of the internship program, make it such that GRID rarely utilizes Team Leaders in its model any longer, yet it remains an option for meeting the requirement.

5. **Design & Construction Intern:** Design and construction internships allow job seekers the opportunity to explore a solar career in a real work environment while being coached through skill development. Design and construction interns spend at least 6 weeks and up to 4 months gaining solar installation training and experience on GRID’s in-house installations. Depending on their focus, interns may support projects with site visits, system design, or direct installation. Internships include job search support, hard and soft skills development under the instruction and supervision of experienced GRID staff, and individualized goals depending on personal objectives.

To align with industry standards, the categories below are relevant job task categories for job trainees participating in the program:

- 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
- Project management/coordination

Tables 4 and 5 below highlight job trainee type, hours worked, and the number of trainees participating on DAC-SASH program installations.

Table 4: Unique Participants in Job Training Programs

	Solar Corps	IBT Trainees	Job Trainees	Interns	Team Leaders	Total Internal	Sub- contractor Program (SPP)
# of Unique Participants	68	84	336	9	3	500	11

Table 5: Job Training Hours by Volunteer and Work Type

Type of work	Solar Corps	IBT Trainees	Job Trainees	Interns	Team Leaders	Total Internal	SPP	Total
Directly Worked on Installation (hours)	13,111	2,864	5,777	337	44	22,132	425	22,557
Design/Engineering (hours)	8	0	0	0	0	8	0	8
Project Coordination (hours)	1,125	0	0	0	0	1,261	12	1,273
Total Hours	14,244	2,864	5,777	337	44	23,401	437	23,838

8.2 Workforce Development Initiatives

In addition to project-level job training requirements outlined above, GRID incorporates additional “green job” training and workforce development components into the Program with the following initiatives:

Integration of hands-on solar installation experience into low-income job training programs. GRID Alternatives actively partners with 34 California job training organizations (JTOs)¹⁶ to incorporate its volunteer-based installation projects into their construction training curricula. GRID dedicates approximately 20% of its internal installations to these trainees to gain hands-on experience with real-world solar installations that have conditions and requirements comparable to what they will encounter in private industry

¹⁶ Active JTO partners are those that GRID has worked directly with on a DAC-SASH installation since the program’s inception.

Paid Work and Job Placement Opportunities for Training Program Graduates:

Graduates from job training programs have the opportunity for paid work alongside professional installers with DAC-SASH subcontractors. One of the biggest challenges for “green job” training is providing sufficient job placement opportunities for trainees, ideally resulting in local hiring. Job trainees are often competing with college graduates looking to enter the solar industry. The job training component of GRID’s SPP Program was developed to help “level the playing field” and provide opportunities for local job trainees to enter the solar PV workforce. GRID subcontractors use DAC-SASH installations as an extended interview, committing to hire job trainees if they perform well and if the company has open entry-level solar positions.

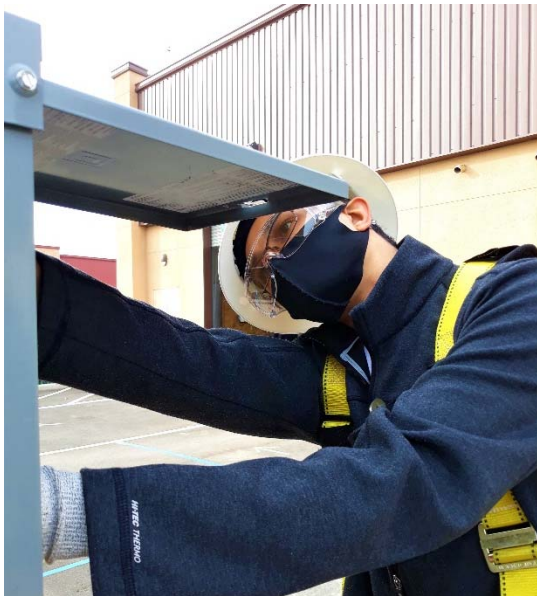
Resume Bank/Job Board: GRID maintains an online Resume Bank/Job Board to promote economic development in disadvantaged communities through job training and local hiring initiatives. This platform connects job seekers and employers and was expanded to more easily match qualified trainees or job candidates with opportunities. The Resume Bank and Job Board provide the additional benefit of gathering critical hiring data. For example, GRID has found that frequent updates with individuals, JTOs, and contractors who use the resume bank, lead to insights about the success rate of individuals seeking full-time employment.

Local Hiring Strategies Aimed at Disadvantaged Workers: GRID aims to ensure that individuals with barriers to employment can participate in the DAC-SASH program and benefit from its workforce development initiative. GRID works with JTO partners to emphasize the importance of including “soft skills” training - such as computer literacy, resume and interviewing skills - into its curriculum in order to enhance an individual’s employability. GRID ensures that JTOs that work with these populations have their trainees participate in the Resume Bank/Job Board and can be easily referred to companies that are hiring through the Resume Bank/Job Board. GRID has

partnered with JTOs that work with re-entry populations and at-risk young adults and has successfully connected trainees to paid job training opportunities.

The Installation Basics Training (IBT) program awards trainees with certificates for industry-relevant skills. These skills are learned under the supervision of GRID’s professional installation staff. GRID’s IBT program provides job trainees with valuable hands-on training, support for development of a skillset requested by employers, and access to potential employment opportunities. IBT trainees earn certificates by demonstrating competency in specific skills while working on installations. GRID offers 11 Skills Certificates that cover a variety of array and electrical skills.

To earn all 11 Skills Certificates, trainees typically need to dedicate 130-300 hours in the field (8-20 complete installations). Employment opportunities for IBT trainees include on-site networking opportunities with corporate sponsors, referrals to



companies hiring for installation positions in the solar industry, and access to GRID’s Resume Bank.

GRID Job Trainees may apply their experience toward NABCEP certification. The North American Board of Certified Energy Practitioners (NABCEP) is widely recognized as the leading certification for solar energy professionals. An individual pursuing NABCEP’s PV solar installer certification must meet the Board’s minimum requirement of having led 5

PV solar installations in order to sit for the certifying exam. GRID job trainees may take the NABCEP certification test once they have led five solar installations, either directly with GRID and/or with our subcontractors as part of the SPP program.

General volunteer opportunities. GRID holds mandatory orientations that all prospective volunteers must attend, which focuses on safety at the job site and allows GRID to promote solar energy and educate volunteers on solar technologies, the importance of energy efficiency, and California's low-income solar, storage, and energy efficiency programs. Individuals who complete the volunteer orientation are then eligible to work on DAC-SASH installations and leave with better knowledge about the solar industry that can motivate them to be solar advocates in their own communities.

JTOs and Job Trainees located in DACs: GRID is focused on involving JTO partners and job trainees who are located in or reside in DACs. Of the 34 JTO partners that GRID is actively working with now, there are 28 located in DACs. Several of these active JTO partners are listed below:

- South Los Angeles YouthBuild (Los Angeles): since 2020
- Fresno Workforce Connection (Fresno): since 2019
- Young Community Developers (San Francisco): since 2017
- Inland Empire Job Corps Center, (San Bernardino): since 2016

GRID estimates that over 253 participants (all types, including volunteers) that have worked on a DAC-SASH project reside in a CalEnviroScreen DAC.

Tracking and Job Placement: Finally, GRID has developed a robust system for tracking DAC-SASH job training participants, the hours they work, and project location of this work. GRID has also begun collecting additional information on wages paid, which helps determine local hiring success. To date, GRID estimates that over time over 217 DAC-SASH job training or volunteer participants have secured longer-term paid employment after working on a DAC-SASH project, based on self-reporting to GRID (this is not independently verified by GRID). Trainees will be surveyed on an annual basis to measure retention, in both the solar industry and overall workforce, as well as career growth. GRID will also survey SPP Program installers on their long-term hiring of trainees, trainee recruitment experience, and trainee quality on a semi-annual

basis, as well as receive information from its JTO partner network. Feedback from trainees, employers, and JTOs will inform revisions to improve the effectiveness of the training and ensure the DAC-SASH program delivers impactful workforce development outcomes in communities throughout the IOUs and in CES DACs.

9. Coordination with Complementary Programs

GRID seeks to integrate the DAC-SASH program into the full landscape of CA programs that can benefit disadvantaged communities. These include, but are not limited to, energy efficiency programs, electric bill payment assistance programs, Electric Vehicle (EV) programs, and the Self-Generation Incentive Program (SGIP) that can increase the resiliency of low-income households.

9.1 Energy Efficiency & Energy Savings Assistance Program

Energy efficiency (EE) is an important part of the DAC-SASH program and the overall mission of GRID Alternatives. GRID believes that energy efficiency is the essential first step to implement in clients' homes before installing PV-solar. To this end, GRID conducts an energy efficiency education and training session for every DAC-SASH applicant. GRID has observed that these one-on-one education sessions can be effective in driving behavioral changes that reduce energy consumption at the household level.

GRID works with the Energy Savings Assistance Program (ESAP) administrators to refer and ideally enroll eligible homeowners into the program and to work collaboratively to improve data transfer and standardize information GRID receives about ESAP enrollment. DAC-SASH PV systems are typically sized based on past usage and also take into consideration presumed energy savings from ESAP measures taken.

Table 6: Referrals to ESAP and Enrollment Percentage

	Total Referred	Enrolled ¹⁷	% Enrolled in ESAP
PG&E	1,333	526	39%
SCE	962	307	32%
SDG&E	47	8	17%
Total	2,342	841	36%

Table 6 summarizes the number of DAC-SASH participants that have been referred to the IOUs for enrollment into ESAP through Q2 2022 or have been successfully enrolled.¹⁸ In addition to ESAP referrals, GRID plans to explore partnerships in the future with the IOUs and other programs that provide additional efficiency services to qualified homeowners, such as the Weatherization Assistance Program¹⁹ and the Low-Income Weatherization Program.

¹⁷ In the past two cycles, GRID did not receive updates from SDG&E to determine how many of its referred leads were enrolled.

¹⁸ GRID refers all ESAP-eligible DAC-SASH applicants to the ESA program. Some applicants may not be ESAP-eligible if they have already completed services in the program, are not income-eligible, or already have an energy efficient home built in the last 5 years.

¹⁹ www.benefits.gov/benefit/1844

9.2 CA Alternate Rates for Energy / Family Electric Rate Assistance programs

GRID also coordinates with California IOUs, the administrators of the CARE and FERA programs, to increase enrollment in these assistance programs and further increase benefits for DAC-SASH participants. In 2022 GRID began working with each IOU to consider more proactive sign-ups for DAC-SASH participants into CARE or FERA, if not already signed up. It has since begun this process with PG&E and hopes to do so by Q4 2022 with the other IOUs.

Table 7: CARE/FERA Enrollment of DAC-SASH Applicants

	Total Applications	CARE Enrolled	FERA Enrolled	Total Enrolled	% Enrolled
PG&E	1,325	1,083	15	1,098	83%
SDG&E	81	61	1	62	77%
SCE	961	745	9	754	78%
Total	2,367	1,889	25	1,914	81%

Though all qualifying-DAC-SASH households are eligible for CARE and/or FERA, many households are unaware of the benefits and accessibility of these programs. GRID’s outreach staff provides information about CARE and FERA to all DAC-SASH participants and refers all DAC-SASH participants to the IOUs for potential enrollment. At this time, 80% of DAC-SASH and potential clients are enrolled in one of these assistance programs.

9.3 The Self-Generation Incentive Program (SGIP)

SGIP provides incentives for energy storage, among other technologies. In late 2019, Decision 19-09-027 updated the program to allow households that qualify for DAC-SASH to also qualify for the SGIP's Equity and Resiliency budget. In 2020 GRID worked with the SGIP Program Administrators (PAs) and the Energy Division to try to create a streamlined SGIP enrollment processes for DAC-SASH participants. GRID initiated a pilot in late 2020 to begin development of a DAC-SASH PV + storage pairing for its highest-need, resiliency clients. In 2021 it began working in earnest with a partner called Swell and its equipment procurement team, integrating battery storage into its PV model. GRID continues to work with Swell in 2022 to setup a more robust partnership in order to ensure that battery storage systems can be delivered at no cost, with long-term warranty coverage and battery replacement included.

9.4 Electric Vehicle and Clean Mobility programs

GRID administers a low-income Electric Vehicle (EV) program for the CA Air Resources Board (CARB), a program for an Air Quality Management District and the Empower EV Program for PG&E soon as well. GRID works to ensure that DAC-SASH participants receive accurate information on and are referred to EV programs that can help families access another cost-saving emerging technology. This program is complementary to a DAC-SASH solar installation and in 2022 GRID continues to finetune its internal process to facilitate referrals between programs and logistics coordination for DAC-SASH participants who may be purchasing an EV or EV charger. Currently there are over 34 DAC-SASH participants interested in or who have received an EV charger as well. GRID expects this market to expand as California creates pathways to make EVs and their infrastructure more affordable and accessible.

10. Subcontractors

Similar to the administration of the SASH program, GRID utilizes staff throughout its Headquarters office and staff in its CA Affiliate offices to conduct administration, marketing, outreach, and installation services for the DAC-SASH program. Many services are centralized, such as equipment procurement, project-level invoicing, and orchestration of field inspections. Other services are conducted at the regional office level, such as development of local partnerships and targeted marketing and outreach strategies. Per the Progress Report requirements, GRID details the program's primary subcontractors below:

a) Field Inspections

The program requires that at least one in every 12 installations are inspected for proper installation and operability by an independent third-party system inspector. GRID currently subcontracts with Indaspec, the Institute for Building Technology and Safety (IBTS), and the Center for Sustainable Energy (CSE) to conduct on-site field inspections throughout the IOU territories for the program.

b) Subcontractor Partnership Program

GRID's [Subcontractor Partnership Program \(SPP\)](#) is a proven model for engaging local installers as subcontractors while providing paid work opportunities for job trainees. Under the SPP, GRID subcontracts with vetted, for-profit companies to install specific DAC-SASH program PV systems, based on a reduced-cost structure and modified scope of work to match the structure of GRID's model. GRID's outreach staff in the Inland Empire, Los Angeles and North Valley (Stockton/Sacramento area) oversee all client-facing interactions and contracting, while the subcontractor provides limited design and/or installation services. All SPP projects are inspected by a third-party, independent inspector for Quality Assurance (QA). The QA inspection verifies that the

system was installed using industry-standard best practices and meets GRID's installation quality requirements. In addition, subcontractors are required to hire at least one paid trainee onto each of their projects.

c) Public Reporting

GRID subcontracts with Energy Solutions to develop and maintain DAC-SASH data on the California Distributed Generation public reporting site, [CalDGStats](#). DAC-SASH data is automatically updated each week.

11. Program Assessment and Barriers

11.1 Assessment of Program Performance

Overall, the program's core messages have been well-received by target audiences, but GRID continues to be concerned about barriers to participation being a roadblock to program success. GRID looks forward to working with stakeholders and the Energy Division to ideally address some of these barriers in a substantive way moving forward, once the program's first evaluation is finalized in 2022.

11.2 Barriers to Participation

Low-income households face myriad barriers to both accessing solar on their own and participating in statewide and local solar programs, including financial barriers, structural barriers, and marketing/outreach barriers. GRID's community- and

customer-centric approach addresses many of these barriers using strategies that have proven to be successful in working with low-income households. For example, GRID's support can enable low-income families to overcome the financial barrier to solar access by covering the cost of the system. However, there are limitations to GRID's financial resources now and in the future for inverter replacements for example at year 10 for non-TPO projects. In addition, there are barriers to DAC-SASH participation due to program eligibility requirements. Below is a high-level overview of GRID's assessment of program barriers.

Eligibility requirement for income

The DAC-SASH program requires that households meet the definition of low-income that is based on the CARE/FERA statewide eligibility. The income qualification of a single statewide income level limits participation in an area such as San Diego, which has a higher cost-of-living than many areas around the state. To illustrate, nearly 50 percent of the SDG&E households who participated in SASH²⁰ -- which uses Area Median Income (AMI) to take into account the varied cost-of-living around the state -- would not meet the income requirement for DAC-SASH. The Bay Area and Los Angeles regional markets experience a similar or higher rate of disqualification using a CARE/FERA income benchmark. In addition, most affordable housing partners work within 80% AMI income limits and therefore many of their [New Construction](#) homeowners will not qualify for the program. This is concerning in particular because New Construction homes are mandated to include solar and possess new roofs, making them great candidates for supporting 25-year warrantied solar systems.

²⁰ SASH uses 80% or less of Area Median Income (AMI) to meet the low-income threshold, which is set in PU Code 2852(a)(1) and detailed in Chapter 2 (commencing with Section 50050) of Part 1 of Division 31 of the Health and Safety Code.

Gap financing requirements

Gap financing is the difference between the project cost and the available DAC-SASH incentive. The financial benefit from the DAC-SASH Third-Party Ownership (TPO) arrangement that GRID expects to leverage for the majority of DAC-SASH projects helps cover some financing gaps, but 10 to 15% of DAC-SASH projects cannot leverage the TPO model or some projects have a higher cost due to additional expenses such as an electrical service upgrade, or a small or ground-mounted system. In these cases, securing additional gap financing is critical, as low-income participants are not expected to contribute financially to their installation. GRID is able to leverage gap financing through local grants, foundation support, in-kind donations, and philanthropic resources, but does not have access to sufficient gap financing for all projects. As such, limitations on GRID's available gap funding are a barrier to program participation and waiting lists are long for homeowners who would like to participate but need a new roof or other upgrades first.

Additional structural costs

Much of the older housing stock that qualifies for the DAC-SASH program requires additional structural upgrades, such as roof repair or replacement, or other property rehabilitation measures related to unpermitted structures, or outdated electrical systems throughout the home (beyond a main service panel upgrade). While GRID has developed some innovative partnerships to provide roof repair and replacements for low-income families, these resources are limited and place specific. For example, GRID has partnerships with the cities of San Francisco and Richmond to provide funding for roof repair or replacement, and has a philanthropic fund devoted to re-roofing for qualifying veterans in Los Angeles. However, the need for roof repair/replacement and other structural upgrades far outpaces the resources available. Homeowners with these additional structural costs face barriers to participation in DAC-SASH.

11.3 Program Design Improvement

GRID worked collaboratively with stakeholders and the Energy Division to explore program changes to address these limitations in 2020 via a modification of D.18-06-027. In 2020 GRID submitted its Petition for Modification (PFM) to address some of the barriers detailed in this section. GRID's PFM was addressed with Decision 20-12-003 which added tribal lands to the program's geographic eligibility. With the first program evaluation taking place in 2022, GRID looks forward to gaining more insight into potential future program changes, adjustments or additions in the future.

12 Conclusion

GRID looks forward to learning the results of the program's first evaluation at the end of 2022. GRID is pleased with the program's progress in completing over 1,400 projects and over 5MW (CEC-AC) of installed capacity from program start, with 130 more shovel-ready projects in the pipeline. This progress is despite lingering COVID-19 impediments or slowdowns, challenging program design, and some staffing capacity issues in 2021 and early 2022.

Economic and health impacts caused by the pandemic highlight perhaps the even greater need for DAC-SASH to help relieve energy burden and provide job training opportunities to disadvantaged communities. GRID looks forward to bringing the benefits of DAC-SASH to residents of disadvantaged communities in 2022 and for years to come.

13 Appendices



Appendix A

Applications in each CES Disadvantaged Community (DAC) Census Tract

(Over 1,700 applications total through Q2 2022)

DAC Census Tract	# of DAC-SASH Applications
Alameda	26
6001407300	1
6001409000	2
6001432400	3
6001408800	3
6001437200	1
6001409500	2
6001408900	2
6001433200	2
6001407400	1
6001409200	1
6001409300	1
6001406201	1
6001437101	1
6001409400	2
6001440301	1
6001401500	1
6001405401	1
Butte	21
(blank)	1
6007003300	6
6007003100	1
6007003700	1
6007001300	12
Contra Costa	223
6013376000	10
6013377000	82
6013375000	6
6013381000	17
6013311000	13

6013365002	8
6013313101	5
6013307202	2
6013314102	2
6013368001	9
6013392200	10
6013382000	14
6013312000	1
6013364002	3
6013379000	9
6013309000	4
6013314103	4
6013366002	4
6013314104	6
6013358000	3
6013310000	2
6013305000	1
6013380000	7
6013302005	1
Fresno	125
6019007100	4
6019001500	1
6019004212	2
6019005203	1
6019004218	1
6019005409	1
6019003805	1
6019006501	1
6019006606	1
6019004504	1
6019002300	1
6019002100	1
6019007300	1
6019003500	2
6019008302	1
6019007004	1

6019003400	2
6019003804	2
6019007003	5
6019003302	1
6019006102	1
6019001202	1
6019004003	3
6019004704	1
6019002701	1
6019006802	1
6019008403	1
6019001700	1
6019003702	3
6019001413	3
6019006502	3
6019004006	2
6019006700	1
6019000902	8
6019003811	2
6019003808	2
6019005202	2
6019006302	1
6019001100	7
6019000602	2
6019008600	1
6019008502	3
6019003809	1
6019008501	1
6019001000	4
6019007500	1
6019004703	1
6019003807	1
6019005301	1
6019004207	3
6019002501	1
6107004101	1

6019006300	2
6019007700	1
6019006100	1
6019001410	1
6019004002	1
6019005607	1
6019003803	1
6019003102	5
6019000700	5
6019000901	6
6019000300	2
6019006602	1
6019006604	1
6019000200	1
Glenn	1
6021010400	1
Humboldt	3
6023011000	1
6023010800	1
6023010702	1
Inyo	35
(blank)	10
6027000400	24
6027000200	1
Kern	19
6029004901	1
6029004607	1
6029005205	1
6029004605	1
6029005003	1
6029002000	1
6029002600	1
6029001201	1
6029001104	1
6029003206	1
6029002303	1

6029004703	1
6029003214	1
6029000202	1
6029003202	1
6029006202	1
6029006304	2
6029004101	1
Kings	22
6031001002	2
6031000100	1
6031000800	3
6031000500	5
6031001003	10
6031001100	1
Lake	1
6033000400	1
Los Angeles	150
6037500403	1
6037433305	1
6037409100	1
6037500600	2
6037600100	1
6037602900	1
6037552301	2
6037570504	1
6037543100	2
6037402706	2
6037602802	1
6037408301	2
6037553901	2
6037543322	4
6037501400	1
6037535200	1
6037402903	1
6037432501	1
6037407102	1

6037408401	1
6037407902	2
6037540501	2
6037481603	1
6037407901	2
6037530005	1
6037402102	2
6037553504	2
6037433103	1
6037405201	1
6037543306	2
6037404703	2
6037553701	3
6037553602	2
6037551800	1
6037432402	1
6037407201	1
6037544002	1
6037402904	3
6037402406	2
6037402200	4
6037403000	2
6037602600	2
6037540101	1
6037430101	1
6037502601	2
6037540800	9
6037552602	1
6037405001	2
6037402101	2
6037402702	1
6037502100	2
6037408631	2
6037576301	1
6037543604	2
6037543501	1

6037601501	1
6037404902	2
6037552700	1
6037543903	1
6037603200	1
6037542602	2
6037570402	1
6037573100	1
6037602004	1
6037404901	2
6037570202	2
6037575300	1
6037542000	1
6037408138	1
6037570404	1
6037570403	2
6037540600	2
6037600400	1
6037542601	1
6037552100	1
6037541200	1
6037550100	1
6037542200	1
6037542402	1
6037530101	1
6037650901	1
6037542104	1
6037572302	1
6037535605	1
6037541002	1
6037540000	1
6037540102	1
6037543201	1
6037433503	1
6037503000	1
6037402402	1

6037543802	1
6037503105	1
6037540300	1
6037405002	1
6037530901	1
6037502700	1
6037542103	1
6037570204	1
6037542700	1
6037601402	1
6037543801	1
6037536103	1
Madera	13
6039000508	3
6039000518	3
6039000511	1
6039000506	1
6039000900	3
6039000502	1
6039000602	1
Mendocino	7
(blank)	1
6045011600	1
6045010700	2
6045010100	2
6045011800	1
Merced	48
6047000301	5
6047001902	8
6047002002	1
6047002601	1
6047001008	1
6047002303	1
6047002204	1
6047002302	5
6047002202	12

6047002000	7
6047000504	1
6047000304	1
6047000901	1
6047000902	1
6047001401	1
6047002201	1
Monterey	2
6053000900	2
Ontario	1
6071001504	1
Orange	7
6059074502	1
6059074602	1
6059074004	1
6059052439	1
6059089001	1
6059074300	1
6059110302	1
Riverside	95
6027000400	1
6065042906	1
6065041414	1
6065042517	3
6065042513	3
6065042521	6
6065040305	1
6065040617	2
6065043521	1
6065042520	2
6065042801	1
6065046200	2
6065042505	1
6065042404	5
6065042523	1
6065042511	2

6065043401	2
6065042522	1
6065042625	1
6065042507	5
6065042516	3
6065042518	5
6065048902	1
6065048800	4
6065040607	3
6065042409	3
6065043517	2
6065042508	1
6065042624	2
6065042007	2
6065040101	1
6065042901	3
6065042620	10
6065042512	1
6065040501	1
6065042510	1
6065040303	1
6065041412	1
6065041409	2
6065040102	1
6065042519	1
6071005600	1
6065042706	2
6065042514	1
San Bernardino	169
6071001504	2
6071001200	1
6071001806	3
6071002405	1
6071001309	1
6071003804	4
6071001400	5

6071004004	1
6071001501	5
6071001804	3
6071006603	1
6071001103	2
6071003700	2
6071003401	3
6071009800	1
6071008001	4
6071001813	3
6071004201	2
6071001503	1
6071004700	1
6071006301	1
6071006100	5
6065040301	1
6071001702	1
6071009500	1
6071012400	1
6071001001	1
6071009131	2
6071012002	2
6071004604	2
6071006203	2
6071009502	1
6071003510	1
6071004403	1
6071002207	1
6071004103	1
6071003505	1
6071010025	4
6071002708	2
6071003302	1
6071002301	2
6071002206	3
6071001809	1

6071001707	12
6071001803	1
6071001312	1
6071002111	1
6071000606	1
6071001002	3
6071001307	3
6071001104	2
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6071001906	3
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6071001810	1
6071003509	1
6071001308	1
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6071003301	1
6071003900	1
6071002704	1
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6071002901	1
6071001310	1
6071000208	1
6071000826	1
6071009116	1
6071004101	1
6071005200	1
6071009117	1
6071003200	2

6071001101	1
6071007110	3
6071002902	1
6071002606	1
6071007601	1
6071004900	1
6071007603	1
6071003607	2
6071000904	1
6071003803	1
6071003503	3
6071000403	1
San Diego	55
6073021100	1
(blank)	4
6073015902	2
6073019106	1
6073020903	3
6073021100	5
6073021101	2
6073003301	2
6073019108	1
6073004900	11
6073003602	1
6073013205	1
6073003303	2
6073021102	1
6073003305	5
6073002501	1
6073003404	2
6073002502	2
6073003502	1
6073003403	2
6073004800	2
6073003501	1
6073011700	1

6073004100	1
San Francisco	9
6075023200	4
6075023300	1
6075023400	2
6075023103	1
6075061200	1
San Joaquin	481
6077005123	8
6077002504	3
6077003500	101
6077002701	2
6077003504	3
6077000803	5
6077005135	12
6077003801	54
6077001700	6
6077003503	6
6077005109	1
6077005113	3
6077005139	2
6077003403	19
6077002201	6
6077003804	4
6077005127	22
6077000900	3
6077005119	30
6077005114	12
6077001502	1
6077005224	1
6077003405	5
6077005122	8
6077002401	4
6077000102	1
6077003806	3
6077005130	3

6077003700	7
6077002800	7
6077005137	3
6077002300	5
6077000700	1
6077003308	3
6077005311	1
6077000401	2
6077003406	2
6115040300	1
6077002402	3
6077002702	1
6077005106	18
6077005110	4
6077003802	17
6077001500	8
6077003407	7
6077001000	3
6077005312	2
6077003805	1
6077001501	2
6077005126	3
6077002202	2
6077001300	5
6077003409	3
6077005129	3
6077002100	2
6077001900	3
6077000600	1
6077005132	1
6077003803	6
6077003305	2
6077005133	4
6077005305	3
6077000801	3
6077003313	2

6077000100	2
6077000500	1
6077002503	1
6077005302	1
6077003110	1
6077005206	3
6077001600	1
6077003601	1
6077001400	1
San Mateo	6
6081612000	3
6081611901	1
6081611900	2
Santa Clara	4
6085512310	1
6085504602	1
6085503122	1
6085512602	1
Santa Cruz	1
6087110400	1
Solano	9
6095253500	1
6095251901	3
6095250701	4
6095251802	1
Stanislaus	3
6099000301	1
6099000303	1
6099000202	1
Sutter	3
6101050302	3
Tulare	162
6107004101	7
6031001003	1
6039000508	1
6107001602	8

6107003901	6
6107002202	2
6107004401	1
6107002403	1
6107001302	8
6107003902	3
6107002602	6
6107003802	1
6107001003	38
6107001011	6
6107001100	1
6107001502	4
6107001009	1
6107002500	1
6107003602	1
6107001701	2
6107004500	2
6107001012	3
6107003301	1
6107004200	1
6107004301	2
6107003401	1
6107003700	7
6107000901	2
6107001306	1
6107004103	2
6107003001	1
6107001004	5
6107003904	2
6107001601	2
6107003302	1
6029004606	1
6107000900	9
6107002901	1
6107002800	2
6107003400	2

6107003200	1
6107000402	2
6107000302	4
6107000201	2
6107000401	1
6019000701	1
6107004302	1
6107000204	1
6107004300	2
Ventura	1
6111003201	1
Yolo	10
6113010204	1
6113010103	1
6113010203	2
6113010102	2
6087121200	1
6113010101	3
Yuba	2
6101050302	1
6115040400	1
Grand Total	1714

Appendix B

Summary of Program Participant Survey Results

GRID sends its post-installation survey after project construction is complete. The survey includes four questions and has a place for comments or other feedback. To date there are 248 survey responses from DAC-SASH participants or a 18.6% response rate. The majority of responding participants state that they would be very likely to recommend GRID to their contacts or neighbors. The four survey questions emailed to clients are:

- **Do you understand how the system works?**
 - On a 1 to 5 scale, we received on average 3.0
- **How to tell if the system is working?**
 - On average we received 3.4
- **What to do if the system is not working?**
 - On average we received 3.2
- **Do you understand your NEM bills?**
 - On average we received 3.2

Some of the average scores have decreased since January and GRID will work to improve in this area. GRID has received constructive criticism including comments such as those below. GRID continually works to address feedback received wherever possible:

“Better explanation of True-up and a checklist for helping to maintain the system. And also, some clarification whether or not a battery storage system would be ok to install separately. Hopefully one day this all comes in a package (solar & battery) system,” from client *in Pittsburg, CA*.

“The process from the first application to installation can be very time consuming ...really wish the methodology could be shortened and more efficient,” from client *in Richmond, CA*.

“My panels were placed to the lower portion of the roof facing west, and since the neighbor house is very close I feel that it would have been more beneficial if the panels had been placed higher on the roof to obtain the optimal sun, especially in the winter months” *from client in Stockton, CA*.

Otherwise, GRID received positive feedback such as the comments below:

"Completely satisfied and proud it was done" *from a client in Visalia, CA.* "Just saw last power bill and yes I see the difference and I thank you for it," *from a client in Ontario, CA.* "So far so good? it has truly been a blessing for my family!" *from client in Vallejo CA.*

"I am so happy with Grid! Fantastic savings at no cost to owner. I live on a golf course and a couple of balls broke panels. I want to check if the panels are still working?" *from client in Whittier CA.*

"They are providing good and efficient programs to many communities saving them money and helping those communities with clean energy and helping on the elimination of the contamination" *from client in Santa Fe Spring, CA.*

For the program's annual survey, to date 273 program participants have responded or 20.5% response rate. The majority of responding participants state that they would be likely to recommend GRID to their contacts or neighbors.

In late 2020 GRID created a separate complaint tracking system. To date GRID has received three formal complaints (meaning they were escalated several times), all related to slow communication and/or miscommunication. GRID is actively working to improve client communications, in particular with complex projects that include multiple services or programs, to ensure that the client understands next steps and holds realistic expectations about what services or products they will be receiving. Please reach out to GRID if you would like more details about these client complaints.