

2023 SGIP Program Performance and Process Evaluation (PPPE)

Including the 2023 Annual PA Performance Review

Submitted to:
Pacific Gas and Electric Company
SGIP Working Group

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TABLE OF CONTENTS

1	EXECUTIVE SUMMARY	1
1.1	SGIP PARTICIPATION AND BUDGET	2
1.2	EVALUATION FINDINGS	4
2	INTRODUCTION.....	13
2.1	PROGRAM OVERVIEW	13
2.1.1	Program Changes During 2023	13
2.1.2	Budget.....	15
2.2	STUDY POPULATION.....	17
2.3	EVALUATION GOALS.....	19
2.4	REPORT CONTENTS	21
3	DATA AND METHODS	22
3.1	TRACKING DATA REVIEW AND REVIEW OF PAST FINDINGS	22
3.2	PROGRAM ADMINISTRATOR IN-DEPTH INTERVIEWS	23
3.3	APPLICANT/DEVELOPER IN-DEPTH INTERVIEWS AND WEB SURVEYS.....	23
3.4	HOST CUSTOMER SURVEY.....	26
4	PA ASSESSMENT RESULTS	29
4.1	OVERALL SATISFACTION WITH SGIP PROGRAM ADMINISTRATOR	29
4.1.1	Applicant	29
4.1.2	Host Customer	31
4.2	TIMELINE OF PROGRAM PROCESSES.....	31
4.3	APPLICANT SATISFACTION WITH PA ACCESSIBILITY, HELPFULNESS AND TIMELINESS	32
5	PROCESS ASSESSMENT THROUGH PARTICIPANT LENSES	38
5.1	HOST CUSTOMER LENS — THE CUSTOMER JOURNEY.....	38
5.1.1	Who is participating and what are they installing?.....	39
5.1.2	How do customers find out about storage options?.....	41
5.1.3	How do customers find out about the SGIP?	42
5.1.4	What is the influence of the SGIP incentive on battery storage decision making?	44
5.1.5	Who are they interacting with and are the program requirements clear?	45
5.1.6	What are the challenges from the customer perspective?	47
5.1.7	Are customers satisfied with SGIP-incentivized battery storage equipment?	48
5.1.8	Did they receive the SGIP incentive?	48
5.2	APPLICANT LENS — THE APPLICANT JOURNEY	48
5.2.1	Eligibility Challenges.....	51
5.2.2	The Reservation Process, Available Funding, and the Waitlist	53
5.2.3	Application Process, Forms and Documentation.....	54
5.2.4	Sources of SGIP Information and Communications Methods	60
5.2.5	Extensions and the Length of Time for the Project	65
5.2.6	SGIP Incentive	66

5.3	CANCELLATIONS AND WAITLISTS.....	66
6	OVERARCHING PROCESS ASSESSMENT	72
6.1	REGULATORY PROCESS	72
6.2	EQUITY LENS	74
APPENDIX A	INTERVIEW GUIDES	79
A.1	IN-DEPTH INTERVIEWS.....	79
A.1.1	PA In-Depth Interview Guide	79
A.1.2	Applicant In-Depth Interview Guide	81
A.2	WEB SURVEYS.....	83
A.2.1	Applicant Web Survey	83
A.2.2	Host Customer Web Survey.....	94
APPENDIX B	HOST CUSTOMER SURVEY RESPONSES	110
APPENDIX C	APPLICANT SURVEY RESPONSES	111
APPENDIX D	NAMING CONVENTION COMPARISON	112



LIST OF TABLES

Table 1-1: Applications Submitted in 2023 by Application Status and Budget Category	4
Table 1-2: Available Funds (\$,%) for each Budget Category as of 5/29/2024	6
Table 1-3: Study Recommendations	11
Table 2-1: Statewide SGIP Budget and Program Administrator Allocations.....	15
Table 2-2: SGIP 2020-2024 Incentive Allocation.....	15
Table 2-3: 2023 SGIP Applicant Count by Budget Category and Program Administrator	17
Table 2-4: 2023 SGIP Host Customer Count by Budget Category and Program Administrator.....	18
Table 2-5: Applications Submitted in 2023 by Current Status and Budget Category.....	19
Table 3-1: Summary of Applicant Data Collection by Program Administrator	25
Table 3-2: Applicant Data Collection by Budget Category	26
Table 3-3: Host Customer Survey Completes by PA	27
Table 3-4: Host Customer Participant Survey Completes by Budget Category	28
Table 4-1: Applicant Overall Satisfaction with SGIP Program Administrators	30
Table 4-2: Host Customer Satisfaction with SGIP PA Among those Interacted with their PA	31
Table 4-3: Applicant Satisfaction with Accessibility, Helpfulness, and Timeliness by PA.....	34
Table 4-4: Applicant Reported Change in Satisfaction with PA Accessibility, Helpfulness, and Timeliness in 2023 vs. Prior Years.....	34
Table 4-5: Applicant Satisfaction (Un-Weighted) by Budget Category and Prolific Status	35
Table 5-1: Host Customer Clarity with Program Aspects	46
Table 5-2: 2019-2023 Applicant Experience Level vs. Applications Submitted and Participation	49
Table 5-3: Applicant Experience Level vs. Participation in Multiple Program Years (PY), Budget Categories (BC), and PAs.....	50
Table 5-4: Applications Submitted in 2023 by Application Status and Budget Category	67
Table 5-5: Applications Submitted in 2023 by Application Status and PA	67

Table 5-6: Applications Submitted in 2023 by Application Status and Prolific Status of PA	68
Table 5-7: Cancellations: What was the primary reason your SGIP application was cancelled?	69
Table 5-8: Cancellations: Do you still plan to install a battery storage system at your home?	70
Table 5-9: Waitlist: Has the battery storage system been installed?	71
Table 5-10: Waitlist: Is your understanding that the project will eventually come off the waitlist and receive the SGIP incentive?	71
Table 6-1: SGIP Market Focus Timeline, Including Market Size (Projects, Capacity, and Incentives) *	73

LIST OF FIGURES

Figure 1-1: Annual Application Volume by Budget Category, 2018-2023	2
Figure 1-2: Application Volume by Program Administrator, 2019-2023	3
Figure 1-3: Host Customer Process Findings	7
Figure 1-4: Applicant Process Findings	8
Figure 1-5: Overarching Process Findings	9
Figure 1-6: Top Three Recommendations for Program Changes	10
Figure 4-1: Applicant Overall Satisfaction with PA Compared to Prior Years	30
Figure 4-2: Two-Step Process Average Time (in Days) Spent within each Step in 2023	32
Figure 5-1: Where Host Customers are Located Throughout the State	39
Figure 5-2: Host Customer Demographics	40
Figure 5-3: Count of Systems and Average kWh Capacity	41
Figure 5-4: How Host Customers Learned About Storage by Budget Category	41
Figure 5-5: From Whom Host Customers First Heard About the SGIP	42
Figure 5-6: When Host Customer's First Discussed the SGIP Incentive	43
Figure 5-7: Host Customer Likelihood of Installing Battery Storage Without the SGIP Incentive	44



Figure 5-8: Top 3 Reasons Host Customers Install Battery Storage..... 44

Figure 5-9: Top 3 Barriers for Host Customers Getting Battery Storage..... 45

Figure 5-10: Budget Category from Handbook..... 52

Figure 6-1: Equity Resiliency Budget Category Requirements 75

1 EXECUTIVE SUMMARY

California's Self-Generation Incentive Program (SGIP) provides financial incentives for the installation of distributed generation and energy storage technologies that meet all or a portion of a customer's electricity needs. The SGIP is funded by California's ratepayers and managed by Program Administrators (PAs) representing California's major investor-owned utilities (IOUs). The PAs are Pacific Gas and Electric Company (PG&E), Southern California Edison (SCE), Southern California Gas Company (SoCalGas), and the Center for Sustainable Energy (CSE), which implements the program for customers of San Diego Gas & Electric (SDG&E). The California Public Utilities Commission (CPUC) provides oversight and guidance on the SGIP.

Decision (D.)16-06-055 set out firm requirements for Self-Generation Incentive Program (SGIP) M&E plans, including an evaluation of the administrative performance of each SGIP Program Administrator (PA) every year. The 2021-2025 SGIP M&E Plan, approved on January 9, 2023,¹ described that in addition to evaluating the annual administrative performance of the PAs, the 2023 evaluation would include an "SGIP Program Performance and Process Evaluation (PPPE)". The PPPE was intended to include information about the "overall effectiveness of program design and processes in order to inform ongoing administration...[and] provide the PAs with recommendations to improve program delivery and better meet the needs of stakeholders while satisfying the D.16-05-055 requirement to evaluate administrative performance every year."²

This document presents findings from the 2023 SGIP PPPE, including a simplified version of the annual PA performance assessment, and provides feedback on the overarching structure of the program, participants' experience with the program, and areas for potential improvements and streamlining. This evaluation took place during the time that the draft and final decision implementing Assembly Bill (AB) 209 were being finalized. This decision was aimed at improving equity outcomes for the SGIP during program years 2024-2026.

The key findings presented in this report were informed by data collected through interviews and surveys with representative samples of SGIP developers/applicants³, host customers⁴, and PA staff.

¹ The 2021-2025 SGIP M&E Plan was approved by Commission staff, per OP 18(d), D.22-04-036.

² 2021-2025 SGIP M&E Plan page 8.

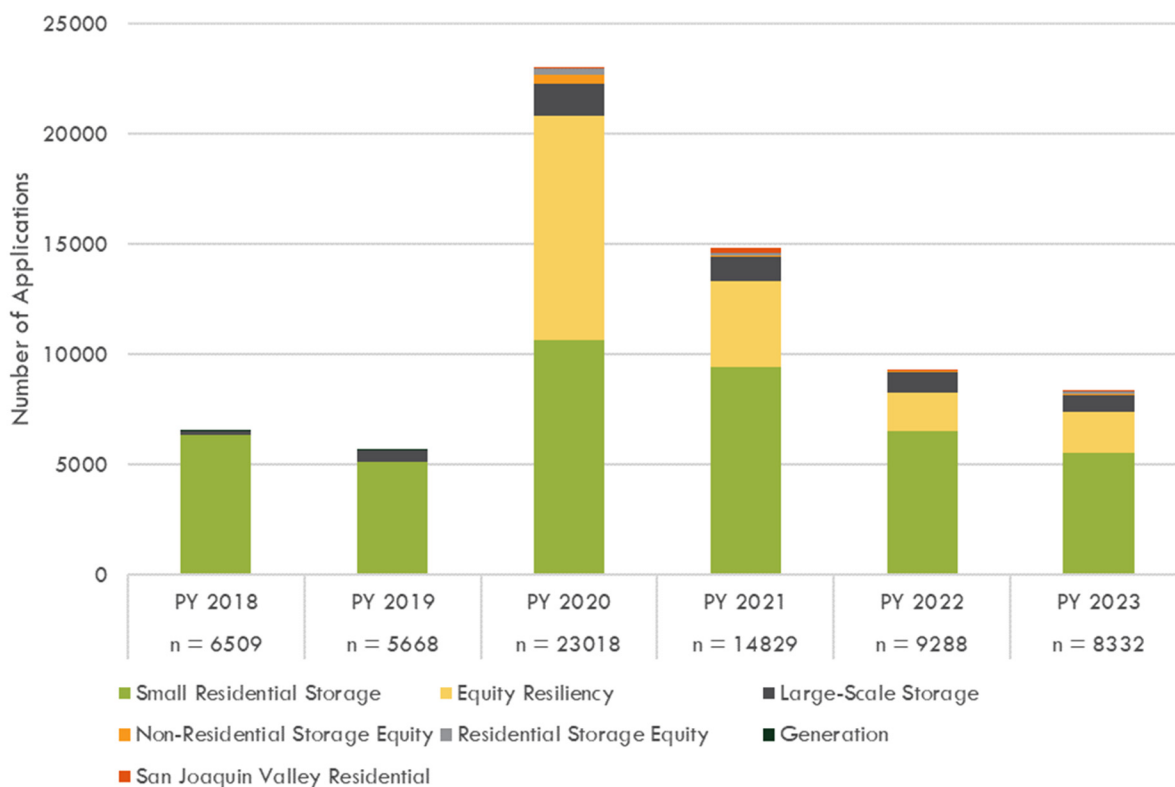
³ The applicant is the person or entity that is responsible for completing and submitting the SGIP application and serves as the main point of contact for the SGIP PA throughout the application process.

⁴ Host Customer is the electric or gas distribution customer (industrial, agricultural, commercial, or residential) that is eligible to receive incentives from the SGIP.

1.1 SGIP PARTICIPATION AND BUDGET

Evaluation findings should be considered within the context of the size of each PA's service territory, the PA's allocated SGIP budget and annual volume of applications. Figure 1-1 below shows the annual volume of SGIP applications received across all PAs by budget category since 2018.⁵ As this table shows, the volume of SGIP applications increased significantly in PY 2020 when the Equity Resiliency budget opened and has dropped off steadily in the years since.

FIGURE 1-1: ANNUAL APPLICATION VOLUME BY BUDGET CATEGORY, 2018-2023



The authorized incentive collections through the end of 2024 total \$813,400,000 allocated as follows: 44% to PG&E, 34% to SCE, 12% to CSE, and 9% to SoCalGas.⁶ The relative share of SGIP funds across PAs is based on the size of the PA's IOU service territory. Administration budgets are 7% of authorized collections for PG&E, SCE and SoCalGas and 10% for CSE.⁷ The recent AB 209 Decision (D. 24-03-071) authorized an

⁵ A snapshot of the program tracking data was taken on January 30, 2024.

⁶ SGIP 2023 Handbook v2 Section 1.1

⁷ Per CSE, PG&E and SCE did not receive administrative budgets for the SB700 funds. They were directed to use their authorized admin carryover for administration for the 2020-2025 program cycle.

additional \$280,000,000 to the SGIP and the allocation of these funds was expanded to include LADWP as a new PA starting in 2024.⁸

Figure 1-2 graphically displays each PA's total application volume across all budget categories.⁹ In 2023, PG&E application volume increased about 10%, SCE saw a 30% drop, SoCalGas saw a nearly 50% increase over 2022, and CSE continued for the 3rd year in a row to see application volumes decline (2023 applications were 26% of 2020 levels). While there have been some significant changes in past years, it is important to note that 2023 application volumes were all similar to 2019 levels (prior to the 2020 SGIP funding becoming available).

FIGURE 1-2: APPLICATION VOLUME BY PROGRAM ADMINISTRATOR, 2019-2023

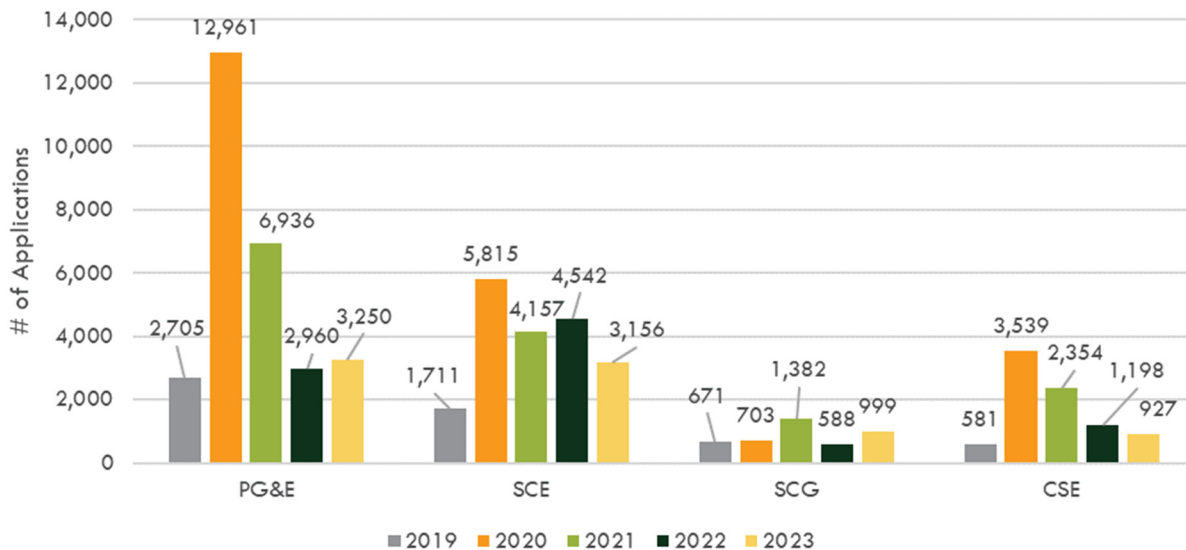


Table 1-1 summarizes the volume of applications received in 2023 by budget category and project status.¹⁰ In 2023, similar to prior years, the majority of SGIP applications were submitted for the Small Residential Storage budget category, followed by the Equity Resiliency budget category. Application volumes for Large-Scale Storage and Generation budget categories both decreased in 2023 (917 and 9 applications, respectively in 2022) and Non-Residential Storage Equity, Residential Storage Equity, and San Joaquin Valley Residential categories all increased in 2023 (25, 32, and 14, respectively in 2022). The table below also shows that to date across all budget categories 11% of the 2023 applications have been

⁸ Allocated across the five PAs as 39% PG&E, 35% SCE, 13%, LADWP, 8% CSE, and 5% SoCalGas.

⁹ As noted, SGIP funding across PAs is based on the size of the PA's IOU service territory. The share of 2023 applications by PA is relatively consistent with the share of allocated authorized incentives with the exception of CSE which saw fewer applications in 2023.


¹⁰ Project status as of March 26, 2024.

cancelled and 6% have been waitlisted. The data collection efforts for this study include short web surveys with host customers whose applications have been cancelled or waitlisted to gather feedback from these customers on the reasons for the cancellation and the status of their battery storage project.

TABLE 1-1: APPLICATIONS SUBMITTED IN 2023 BY APPLICATION STATUS AND BUDGET CATEGORY

Budget Category	Active		Completed		Waitlist		Cancelled		Total
	#	%	#	%	#	%	#	%	#
Small Res Storage	2,284	41%	2,439	44%	335	6%	488	9%	5,546
Equity Resiliency	1,091	60%	449	25%	120	7%	168	9%	1,828
Large-Scale Storage	480	62%	127	16%	14	2%	159	20%	780
Res Storage Equity	53	50%	6	6%	0	0%	47	44%	106
Non-Res Storage Equity	25	58%	0	0%	11	26%	7	16%	43
SVJ Res	22	88%	0	0%	0	0%	3	12%	25
Generation	1	25%	0	0%	0	0%	3	75%	4
Total	3,956	47%	3,021	36%	480	6%	875	11%	8,332

1.2 EVALUATION FINDINGS

This section summarizes the findings from the 2023 SGIP PA Program Performance and Process Evaluation (PPPE). Study recommendations are called out throughout the report (identified by a ) and summarized in a table in Appendix E.

We received significant feedback on areas causing frustration throughout the application process from the applicants and host customers (via in-depth interviews and web surveys). We attempted to validate the reported issues and found numerous instances where this was not possible as the feedback we received concerned topics that were either unclear, absent, or opposite to what was included within program documentation (i.e., the SGIP Handbook). We have included applicant-reported frustrations throughout this report, most of which were reiterated by multiple applicants. Regardless of the validity of these frustrations within existing program rules (i.e., whether the PAs believe the applicants have a correct understanding of program rules), they illustrate both the confusion and inconsistency in the application process and represents applicants' experience participating in the SGIP.

Satisfaction Level with SGIP PAs (PA Assessment)

Satisfaction with the SGIP PAs in the areas explored by the evaluation has not significantly changed since the prior evaluation (although some applicants who have participated in past years feel like things improved). Applicants and host customers continue to report moderate levels of satisfaction with the PAs. Applicant overall satisfaction ranged from 2.9 to 3.9 and host customer satisfaction ranged from 3.2 to

3.7. SoCalGas applicants again reported the highest levels of satisfaction with their PA (their mean rating was 3.9, nearly one point higher than the ratings for the other PAs, which ranged from 2.9 to 3.1). Applicants' satisfaction ratings with PA accessibility, helpfulness, and timeliness also continued to be moderate in 2023. The satisfaction data also indicates that prolific applicants, who have more staff and experience with the program, are more satisfied than those who have not mastered how to navigate the SGIP processes. Moreover, satisfaction in the Small Residential Storage budget category tends to be higher than for Equity Resiliency, which has more hurdles such as eligibility and funding restrictions.

- Applicants who reported low levels of satisfaction with **PA accessibility** continued to report a significant frustration with the inability to reach the PA by phone (the phone line always goes directly to voicemail) and the lack (or incredibly delayed) response to emails or voicemails.
- Applicants who were dissatisfied with **PA helpfulness** report their dissatisfaction was primarily related to unclear, vague, inconsistent, inaccessible (i.e. overly technical) or unhelpful program support.
- Reasons provided by applicants for their low levels of satisfaction with **PA timeliness** in 2023 were related to long timelines to get responses to questions or to get projects reviewed.

The time it takes for an SGIP project to get through the application process has decreased when looking at the program as a whole. However, there is variation across the PAs. CSE, who in 2023 received 25% of the applications that PG&E did, took 50% longer to process their two-step applications. During in-depth interviews several prolific applicants reported working with CSE was significantly more challenging than working with the other PAs, with two of these applicants noting that they avoid working in SDG&E territory for this reason.

Process Assessment through the Host Customer Lens

In 2023, residential storage projects accounted for 96% of the applications submitted. Only one percent of host customer applications fell under the Residential Equity budget category, indicating that low-income households or households located within a disadvantaged community (DAC), tribal area, or low-income community do not seem to be applying to the program. Table 1-2 below shows the remaining budget (available funds) in dollars and percent of total allocated funds (authorized collections, reallocations, authorized rollovers) for each budget category as of 5/29/2024. Remaining Residential Storage Equity funds range from 20% in SCE territory (\$2,465,748) to 83% in PG&E territory (\$17,277,968), demonstrating that there are still ample opportunities for these projects to be funded if the barriers to participation can be reduced.

TABLE 1-2: AVAILABLE FUNDS (\$,%) FOR EACH BUDGET CATEGORY AS OF 5/29/2024

Budget Category	PG&E		SCE		SCG		CSE	
	\$	%	\$	%	\$	%	\$	%
Small Res Storage	\$1,067,079	7%	\$1,971,825	17%	\$1,056,691	37%	\$209,771	5%
Equity Resiliency	\$33,896	0.01%	\$3,776,187	1.4%	\$88,401	0.1%	\$1,411,216	1.8%
Large-Scale Storage	\$4,007,600	11%	\$139,924	1%	\$40,353	1%	\$10,580,565	65%
Res Storage Equity	\$17,277,968	83%	\$2,465,748	20%	\$884,324	30%	\$2,845,784	62%
Non-Res Storage Equity	\$1,840,188	2%	\$5,718,143	9%	\$971,869	5%	\$5,435,952	40%
SJV Res	\$207,200	4%	\$4,378,400	90%	N/A	N/A	N/A	N/A
Generation	\$27,494,039	51%	\$35,898,875	87%	\$11,688,395	100%	\$14,507,136	94%

Host customers report very high levels of satisfaction with their SGIP-incentivized battery storage (4.6 on a 1-5 scale, 71% rated it a 5 and only 1% rated it a 1). Host customers also seem to be more satisfied with the SGIP than applicants, as they are often sheltered from program exchanges and interact primarily with their applicant on topics related to their application (90% of host customers report engaging most often with their applicant/developer or installer). Notably, many 2023 SGIP host customers report the SGIP incentive had little influence on their decision to install battery storage, however this varied significantly by budget category. Fewer than 20% of Small Residential Storage and Large-Scale Storage host customers reported they were “not at all likely” to install battery storage without participating in the SGIP (the remaining 80% were either “extremely” or “somewhat” likely to do it absent the program). The program had a much larger influence on the Equity Resiliency category, where two-thirds of respondents indicated the SGIP had a significant influence on their decision to install battery storage.

Process evaluation findings as viewed through the host customer lens are highlighted in Figure 1-3.

FIGURE 1-3: HOST CUSTOMER PROCESS FINDINGS

 CUSTOMER AND SYSTEM DETAILS	<p>Residential storage projects accounted for 96% of the applications submitted. Only one percent of host customer applications fell under the Residential Equity budget category, indicating that low-income households or households located within a disadvantaged community (DAC), tribal area, or low-income community do not seem to be applying to the program.</p>
 AWARENESS OF STORAGE	<p>Participating customers often seek out storage options (through personal research or information from friends and family), however, many also find out about battery storage from applicants (such as a solar installer during the installation of their PV system). Equity Resiliency customers most often hear about storage from “Family and Friends (word of mouth)”.</p>
 AWARENESS OF SGIP	<p>While participants seek out solar (or solar/storage) options, they usually find out about the SGIP from their applicant or vendor/installer when they go to pursue a storage or solar project. Some applicants reported presenting host customers with cost proposals that show pricing with and without the SGIP incentive since the funding cannot be guaranteed.</p>
 PROGRAM INFLUENCE	<p>Over 80% of host customers in the Small Residential Storage and Large-Scale Storage categories indicated that they would have installed the battery systems without participating in the SGIP. The program had a much larger influence on the Equity Resiliency category, where about two-thirds of respondents indicated that the program had a significant influence on their decision.</p>
 COMMUNICATION	<p>Host customers primarily interact with their applicant (90%), not the PA (5%), regarding their SGIP applications. Ratings related to clarity of communications was rated lower for information provided by the PA than it was for information provided by the applicant.</p>
 CHALLENGES	<p>51% recalled experiencing issues or delays with their SGIP application or battery storage project. Primary customer issues included delays with either their SGIP application (45%), their system installation (41%), or interconnection (24%). Another challenge host customers may face is the need to enroll in a new SGIP rate and understanding of the potential impact of this rate on their electric bill.</p>
 EQUIPMENT SATISFACTION	<p>Host customers report very high levels of satisfaction with their battery (4.6 on a 1-5 scale, 71% rated it a 5 and only 1% rated it a 1). The few unsatisfied, reported wanting more control over the battery’s operation or its physical location and being unhappy as they did not achieve their expected financial savings.</p>
 PAYMENT & INCENTIVE	<p>Most host customers reported that both the final SGIP incentive and the final cost of the battery storage systems were like initial estimates. 14% of customers reported the SGIP incentive was less than the initial estimate (this rate was highest for SCE, 28%, and lowest for PG&E, 7%) and only 6% reported the final system cost was greater than the initial cost estimate.</p>

Process Assessment through the Applicant Lens

The biggest hurdles, or challenges, from the applicant perspective include determining eligibility and navigating through the application process. Many applicants mentioned being challenged by changes to SGIP funding and eligibility requirements, which vary by PA. Determining the appropriate budget category

for the applications was also a challenge reported by many applicants and observable within the program tracking data. Roughly half of all applicants (47%) reported reaching out to their PA(s) to ask questions or get clarifications on the SGIP eligibility requirements.

Almost all applicants felt that the SGIP application process is too complicated and burdensome. Some applicants called out specific forms, while others (mostly experienced prolific applicants) stated they had no real issues with the forms (over time they've gained experience on how to fill them out) but said the application approval process was *very difficult*. Applicants also indicated that they felt the program rules were applied inconsistently across PAs, reviewers, and projects.

FIGURE 1-4: APPLICANT PROCESS FINDINGS

	ELIGIBILITY	Applicants have expressed concerns with eligibility including difficulties understanding the correct budget program to apply as well as and frustrations over equipment eligibility.
	RESERVATION PROCESS	Many of the applicants mentioned that they are challenged by the fact that the funding changes over time. Applicants mentioned that much of the 2023 funding was through project attrition, meaning that the funding is not guaranteed.
	APPLICATION	Most applicants described the application process as too complicated. Many called out specific forms, while others described the approval process as long and difficult. Concerns to the process included variability by reviewers, confusing review process, inconsistent guidance, duplicative documentation and multiple signatures, document requests that the PA already has, and inconsistent naming conventions.
	SOURCES & COMMUNICATION	There appears to be a need for improvements in PAs communication methods. Nearly all applicants interviewed for this study mentioned finding it difficult to communicate with the PAs. Many reported it was nearly impossible to talk directly to anyone from the PAs.
	PTO & EXTENSIONS	Applicants reported concerns with the extension process, including automated cancellation notices, even when an extension has been requested, difficulties for homeowners to get onto their new rate, and a request for a longer timeline for non-residential projects.
	PAYMENT & INCENTIVE	The effect of the incentive appears to vary by budget program; For small residential projects, the incentive is a bonus, but for equity resiliency projects, it is typically a requirement to move forward.



At the time of reporting, 11% of 2023 applications had been cancelled. The cancellation rate was highest for the Residential Storage Equity budget category (44% cancellation rate) and applications submitted by non-prolific applicants were more than twice as likely to be cancelled as those submitted by a prolific

applicant (18% versus 7%). Primary reasons for cancellations were project ineligibility (28%, plus another 9% that were duplicates due primarily to budget category eligibility) and the application process was too burdensome (14%, plus another 4% who reported they did not receive sufficient support from the PAs to process the application). Improving tools to help applicants determine participant and technology eligibility (including ensuring projects are submitted to the correct budget category), streamlining the SGIP application to reduce application burden, and increasing PA support to applicants and host customers can help to reduce future cancellations.

Overarching Process Assessment

The process evaluation also examined the SGIP from an overarching perspective, namely, what are the biggest hurdles to running an efficient program? Below we present hurdles the program faces from a regulatory perspective, as well as hurdles that are specific to the Equity budget categories.

FIGURE 1-5: OVERARCHING PROCESS FINDINGS

 <p>REGULATORY</p>	<p>The SGIP program was originally conceived as a program to provide incentives for installing large generation and solar PV technologies, yet these only account for 3% of SGIP projects. Since 2017, Small Residential projects accounts for 62% of applications submitted but each is only 1% of the average generation project capacity. This implies that the current SGIP application process is out of scale with the current program.</p> <p>Making improvements to the program requires a lengthy process through a Petition for Modification. PAs have expressed a need for streamlining, as they recognize the application process is too complicated, and the 23 years of regulatory history is the biggest obstacle to streamlining the program.</p>
 <p>EQUITY</p>	<p>While the Equity Resiliency was developed to incentivize customers with critical resiliency needs, only 1% of incentives went to customers qualifying under the equity budget. Applicant surveys suggest marketing to equity customers seems like “<i>too much trouble</i>” or that perceived program requirements aren’t worth the incentive.</p> <p>While a new decision to allocate \$280 mil. to the Residential Solar and Storage equity budget, it is still unclear whether low-income customers will be targeted by developers or whether they have the time, knowledge, and resources to participate given the numerous challenges discussed throughout this report. Partnering with non-IOU entities like CCAs, municipalities, or POUs to reach populations would be beneficial.</p>

Top Recommendations for Increasing Program’s Effectiveness

Throughout this report we provide numerous recommendations that we feel the program should consider in order to increase its effectiveness and reduce the participation burden placed on host customers and applicants. Figure 1-6 below presents the evaluation team’s top there recommendations for program changes that would help to significantly increase the program’s effectiveness in the short-term. These

changes represent minor “tweaks” to the current program, which as noted above has been tweaked for the past 23 years to accommodate different measures, participant populations, and program objectives. The alternative, which we believe should be a serious consideration of the CPUC, would be an entirely new program that builds on the learnings of the past but starts fresh unburdened by the long programmatic and regulatory history of the SGIP.

FIGURE 1-6: TOP THREE RECOMMENDATIONS FOR PROGRAM CHANGES

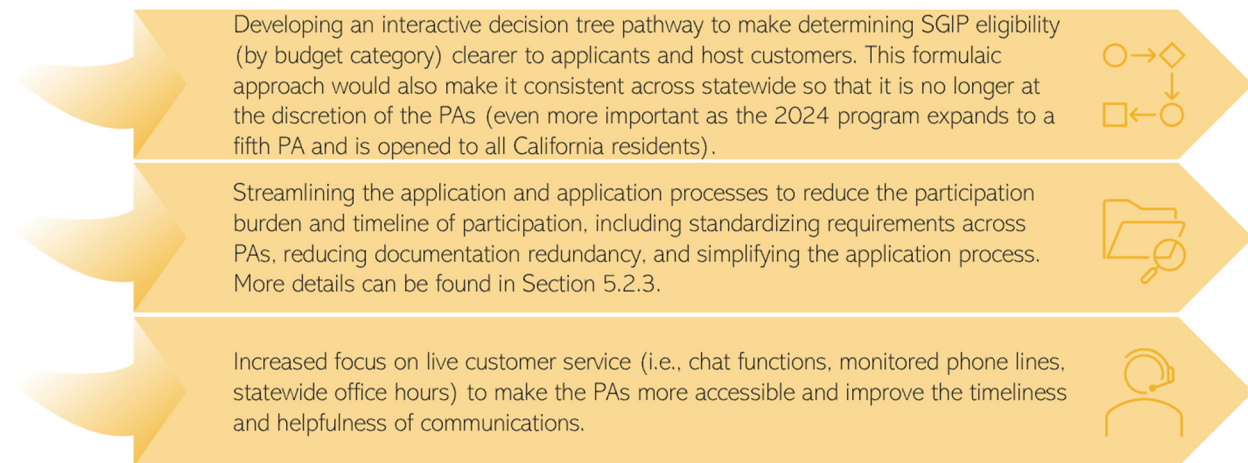


Table 1-3 below summarizes the recommendations resulting from this study that are included throughout the main body of the report. The table includes the report section where further discussion of the study recommendations can be found and a rating regarding the priority and difficulty of implementing each of the recommendations. The study recommendations have been combined where appropriate and additional sub-recommendations are included that provide further detail on areas in need of change.

TABLE 1-3: STUDY RECOMMENDATIONS

Study Recommendations	Report Section	Priority	Difficulty
(1) The SGIP PAs should look to significantly streamline the application process, thereby reducing the application burden placed on applicants and host customers (HCs), by: Taking on additional responsibilities, and reviewing all application forms and signature documents to ensure they are necessary and not redundant.	5.1.6, 5.2.3, 5.3	Medium - High	Easy - Medium
(1a) PAs should assist HCs switch to an SGIP-approved		Medium	Medium
(1b) PAs should streamline the application process by confirming HC data on the backend whenever possible. Examples include confirming that: <ul style="list-style-type: none"> - HC has switched to an SGIP-approved rate - HC has experienced 2 or more PSPS events - HC has received Permission to Operate (PTO) - HC is in a High Fire Threat District (HFTD) - HC is on a Medical Baseline 		Medium	Easy
(1c) There are many forms requiring separate signatures, that could be included and signed off within the online application, thus removing the need for a separate document. These include: <ul style="list-style-type: none"> - Well Pump Attestation - Authorization to receive customer information on a customer's behalf - Residential Storage Affidavit - Medical Baseline Affidavit - Small Business Affidavit - Multifamily LI Cover Sheet - Customer Resiliency Attestation - Renewable Fuel Affidavit - Waste Gas Affidavit - Directed Gas Supplier Attestation (both signed by host customer and by fuel provider) - Project Cost Affidavit 		High	Medium
(1d) PAs should streamline the application process by eliminating redundant data collection requirements that occur throughout the application process. Examples include: <ul style="list-style-type: none"> - Energy storage equipment details are requested in the RRF application, again in the PMP and elsewhere - Monitoring plans are requested numerous times (preliminary, proposed, and final monitoring schematic), which potentially could just be one document that is updated, as needed - Redundant documents required at the Incentive Claim Phase (such as stamped plans, final building permits, etc. which are needed to receive PTO) 		High	Medium
(2) Create an interactive decision tree pathway to direct host customers and/or applicants to the correct budget category where their project is eligible.	5.2.1, 5.3	High	Medium
(3) Incorporate the application checklist directly into the application process and include references to program handbook requirements and links to application forms that must be submitted to simplify the process for applicants and decrease the volume of corrections requested by the PAs.	5.2.1, Appendix D	Low	Medium
(3a) The PAs should review the naming conventions used throughout the application and SGIP handbook to ensure they are consistent and do not lead to additional confusion.		Low	Easy
(4) Review and simplify the process to confirm the eligibility of SGIP-approved equipment.	5.2.1, 5.3	High (<10kW) Medium (>=10kW)	Medium
(5) Each form or piece of documentation required for the application should have its own upload link. This will help the applicant know if documentation is missing and will help the PA keep track of documentation that has been submitted.	5.2.3	Low	Medium Hard

Study Recommendations (continued)	Report Section	Priority	Difficulty
(6) The PAs should work together to ensure they are aligned in their program requirements. Inconsistent adherence to program requirements makes the process for applicants working across multiple PAs much more difficult and it exasperates discrepancies in the program handbook.	5.2.3	Medium	Medium
(7) The E-Handbook should be updated to allow applicants to more easily look at the program requirements that are applicable to their specific PA, budget category, and/or equipment type.	5.2.4	High	Medium
(8) PAs should increase their offerings of live customer service (i.e., chat functions, monitored phone lines, statewide office hours) to increase their level of accessibility for SGIP participants which will in turn improve the timeliness and helpfulness of their communications.	5.2.4, 5.3	Very High	Medium
(8a) CSE and SCG should offer office hours and SCE should post the date/time of office hours more prominently on the SGIP website.		High	Easy
(8b) A statewide SGIP phone-line (or online chat function) should be made available and messages left after hours should be returned within 1 business day.		High	Medium
(9) Conduct research to examine historical non-residential project timelines to determine whether the current timelines or extension request process are in need of expansion.	5.2.5	Low	Easy
(10) The CPUC should consider what latitude can be granted to the PAs to significantly simplify and streamline the SGIP. Currently the process for PAs to make changes or improvements to the SGIP is a lengthy endeavor, typically requiring a Petition for Modification (PFM). The PAS see SGIP's 23 years of regulatory history as one of the biggest obstacles to program streamlining.	6.1	High	Very Hard
(11) Community based organizations (CBOs) and/or local governments should be leveraged to increase SGIP awareness and increase participation in the equity sector.	6.2	High	Hard

2 INTRODUCTION

California's Self-Generation Incentive Program (SGIP) provides financial incentives for the installation of distributed generation and energy storage technologies that meet all or a portion of a customer's electricity needs. The SGIP is funded by California's ratepayers and managed by Program Administrators (PAs) representing California's investor-owned utilities (IOUs). The PAs are Pacific Gas and Electric Company (PG&E), Southern California Edison (SCE), Southern California Gas Company (SoCalGas), and the Center for Sustainable Energy (CSE), which implements the SGIP for San Diego Gas and Electric (SDG&E) customers. The California Public Utilities Commission (CPUC) provides oversight and guidance on the SGIP.

2.1 PROGRAM OVERVIEW

The SGIP was originally designed in 2001 in response to the California electricity crisis. Since then, the SGIP has undergone numerous revisions to its incentive levels, eligibility rules, application process, and technology offerings. The SGIP Handbook¹¹ describes the application process, technology eligibility requirements, and incentive levels for projects submitting applications in Program Year (PY) 2023.

2.1.1 Program Changes During 2023

Changes made to the program in 2023 focused on program streamlining. Statewide, the key changes included the development of an electronic handbook (E-Handbook) and several other statewide changes that were made through the petition for modification requests (PFM).

- **Electronic handbook (E-Handbook) initiative.** The Program Administrators rolled out the new SGIP E-Handbook in 2023. The objectives were to improve Handbook readability and comprehension by clarifying policies and eligibility requirements. The E-Handbook was submitted for CPUC review in late Q1 2023. The E-Handbook is identical to the 2023 PDF version, but provides easy navigation to select different sections, along with a search function to navigate through to areas of the handbook relevant to the search topic. It further attempts to narrow down the search results through the selection of a budget category and technology to applicable sections.

Along with the E-handbook, a checklist was developed to help customers know what is needed for the application submittal. Users are directed to input basic information about the project, such as PA, equipment type, budget category, system size, estimated project cost, and whether the application will opt into resiliency. The checklist then highlights different pieces of documentation that need to be provided with the application. The checklist, however, does not provide direct links where specific pieces of documentation are discussed, nor does it provide links to where a form can be downloaded.

Through the CPUC regulatory process, the program also changed the following processes:

¹¹ The SGIP E-Handbook is updated regularly and available at: <https://www.sgiphandbook.com/>

- **Post-Installation Inspection sampling protocol.** A program modification request was submitted to the SGIP WG by Tesla in 2023 to address highly configurable systems such as Tesla Megapack systems.
- **Process to deal with developers that go out of business.** Developers who went out of business requirement (related to the requirement exceptions for a 10-year service warrantee and developer GHG compliance reporting) went into effect in 2023 so that they could continue to serve customers with developers who go out of business.
- **Generation capacity factors.** Eligible dispatchable renewable fuel projects can operate at a lower (15%) capacity factor and limits annual PBI payments to no more than 25 percent of the expected total PBI payment.

The PAs also made changes to streamline their internal processes.

- **SCE streamlined customer communications, added staff and made changes to their verification processes.** According to SCE, in 2023, SCE reviewed all communications and created templates so that they were always responding in the same manner. They also provided FAQs to their contact center to help them communicate with customers to minimize the frequency with which customers passed around between various groups in SCE. In addition, SCE added staff to help customers. SCE also streamlined their verification process to ensure that customers were verified (by the SCE processing team) before going to the technical team (AESC, a third party).
- **SoCalGas worked on improving processing times, brought in technical expertise in-house , and tried to clarify eligibility requirements on their website.** According to SoCalGas, they actively worked to improve the timeliness of their application processing by adding internal metrics to track every stage of the application process in real time, including tracking inspections. They also started proactively reaching out to applicants who were experiencing delays or problems with their application (they regularly update a list of applicants who are experiencing problems). In 2022, they brought in technical assistance in-house to be more actively involved with program applicants. They began paying more attention to Performance-Based Incentive (PBI) projects in 2023 by reviewing monthly PBI project data and addressing anomalies early in the process. SoCalGas also reported updating their website in 2023 to ensure that all budget categories and qualifications are clear (see SoCalGas website <https://www.socalgas.com/for-your-business/power-generation/self-generation-incentive>).
- **PG&E made small adjustments (e.g., communications through contact center) but didn't make any big changes to their implementation of the SGIP in 2023** since none of the program rules changed. PG&E staff mentioned that they continuously evaluate their SGIP program processes to identify areas needing improvement. For example, customers were complaining about switching to SGIP-approved rates and so the PG&E PA worked with the contact center to help customers with this issue.
- **CSE made a number of changes to improve their application processing.** This included establishing an internal process to ensure applications were reviewed within 10 days of a status change date, integrating inspections into their internal tracking software to streamline communication and processing, and focusing on creating redundancy in staff skillsets to better prepare for fluctuations in demand throughout the application process.

2.1.2 Budget

The authorized incentive collections through the end of 2024 total \$813,400,000.¹² Table 2-1 summarizes the allocation by PA. The relative share of SGIP funds across PAs is based on the size of the PA's IOU service territory and SGIP administration budgets are tied to the allotted authorized incentive collections. Administration budgets are 7% of authorized collections for PG&E, SCE and SoCalGas and 10% for CSE.

TABLE 2-1: STATEWIDE SGIP BUDGET AND PROGRAM ADMINISTRATOR ALLOCATIONS

Program Administrator	Authorized Incentive Collections	% of Total Authorized Incentive Collections*
PG&E	\$360,000,000	44%
SCE	\$280,000,000	34%
SoCalGas	\$74,400,000	9%
CSE	\$99,000,000	12%

*Percentages do not sum to 100 due to rounding.

Incentive allocations by budget category for the 2020-2024 SGIP budget cycle are shown in Table 2-2 below (per the SGIP E-Handbook Section 1.2).

TABLE 2-2: SGIP 2020-2024 INCENTIVE ALLOCATION

Budget Category	Budget Grouping	Share of Allocated Budget	Share of Allocated Budget by Budget Category	Normalized Share of Allocated Budget versus 2023 Non-Cancelled Applications
Large Scale Storage	Energy Storage	88%	10%	11% / 18%
Small Residential Storage			7%	7% / 7%
Residential Equity			3%	3% / 2%
Non-residential Equity			0%*	0% / 27%
Equity Resiliency			63%	66% / 44%
San Joaquin Valley Pilot			0%**	0% / <1%
Heat Pump Water Heater			5%	***
Generation	Generation	12%	12%	13% / 1%

*2020-2024 authorized collections suspend further collections for non-residential equity once existing carryover is exhausted.

**Pursuant to D.19-09-027, San Joaquin Valley Pilot has a \$10 million set-aside funded by SCE and PG&E's unused non-residential equity budget.

***The Heat Pump Water Heater (HPWH) budget category is tracked differently from the rest of the SGIP. In order to compare the allocated budgets to the 2023 calculated incentives (for non-cancelled applications), we removed the HPWH category and normalized the remaining allocated budgets.

¹² SGIP E-Handbook, Section 1.1

The energy storage budget is broken out into seven budget categories:

1. **Large-Scale Storage:** Non-residential projects or residential projects greater than 10 kW.
2. **Small Residential Storage:** Residential projects less than or equal to 10 kW.
3. **Residential Equity:** Single-family low-income housing or multi-family low-income housing, regardless of project size. The stated objective of the equity budget is to: 1) bring positive economic and workforce development opportunities to disadvantaged communities, 2) reduce the need to operate conventional gas facilities in these communities due to poor air quality, and 3) to ensure disadvantaged customers have access to energy storage resources incentivized through SGIP.
4. **Non-Residential Equity:** Local, state, or tribal government agencies, educational institutions, non-profit organizations, or small businesses. Additionally, the project site must either be located in or provide service to a disadvantaged community.
5. **Equity Resiliency:** Intended for vulnerable households located in Tier 2 and Tier 3 High Fire Threat Districts (HFTDs) or customers who have been subjected to two or more Public Safety Power Shutoff (PSPS) events, critical services facilities serving those districts, and customers located in those districts that participate in low-income programs.
6. **San Joaquin Valley Pilot (Residential and Non-Residential):** The San Joaquin Valley assigned commissioner's ruling reasoned that a dedicated SGIP budget for the pilot communities would improve the reliability of electric service and would strengthen community resiliency in the face of extended electric outages.
7. **Heat Pump Water Heaters:** To stimulate growth in the California heat pump water heater market, CPUC Decision 19-09-027, in September 2019, directed the transfer of \$4 million in accumulated unused incentive funds into a set-aside for heat pump water heaters for equity budget customers. Following this decision, the 2020-2024 budget defined in D.20-01-021 (issued January 2020) allocated 5% of the overall 2020-2024 budget to heat pump water heaters. CPUC D. 22-04-036 allocated an additional \$40M in Cap-and-Trade funds to the SGIP HPWH budget, which is administered separately by a single statewide PA. The SGIP HPWH program is considered out of scope for this evaluation.

In addition to the seven energy storage budget categories, the **generation budget** category offers incentives for technologies such as wind turbines, pressure reduction turbines, waste heat to power, combined heat and power, fuel cells, and as of 2023, linear generators. All new generation projects must be 100 percent renewable.

2.2 STUDY POPULATION

A copy of the SGIP statewide project list was downloaded from www.selfgenca.com on January 30th, 2024, and all applications with Program Year equal to 2023 were included in this evaluation. The study population is divided into two types of participants: applicants and host customers.

- **Applicants:** An applicant is the person or entity that is responsible for completing and submitting the SGIP application and serves as the main point of contact for the SGIP PA throughout the application process. Host customers may act as the applicant, or they may designate a third party to act as the applicant on their behalf.¹³ In 2023, the applicant was most often (92% of the time) also the project developer (the entity that holds the contract for purchase and installation of the system and/or alternative system ownership agreement with the host customer and handles the project's development activities).
- **Host Customers:** Any retail electric or gas distribution customer (industrial, agricultural, commercial or residential) of PG&E, SCE, SoCalGas, or SDG&E is eligible to be the host customer and receive incentives from the SGIP.¹⁴ The host customer is the exclusive incentive reservation holder who is party to the SGIP contract. The host customer has the authority to designate the applicant, system owner (if not host customer, e.g., a leased system), energy service provider, and/or developer.¹⁵

In 2023, there were 8,332 applications¹⁶ submitted to the SGIP program by a total of 366 applicants¹⁷ representing 7,771 host customers. The breakout of applicants and host customers by PA and budget category is shown in Table 2-3 and Table 2-4. The total column and row are less than sum of the cells as a single applicant may have projects in multiple territories and/or budget categories. The "Total" column and row represents the unique count of applicants across these domains.

TABLE 2-3: 2023 SGIP APPLICANT COUNT BY BUDGET CATEGORY AND PROGRAM ADMINISTRATOR

Budget Category	PG&E	SCE	SoCalGas	CSE	Total
Small Residential Storage	118	93	42	45	205
Equity Resiliency	96	87	29	44	186
Large-Scale Storage	98	51	21	27	151
Residential Storage Equity	10	6	2	4	16
Non-Residential Storage Equity	4	2	7	0	11
San Joaquin Valley Residential	1	1	0	0	1
Generation	3	1	0	0	4
Total	214	149	62	76	366

¹³ SGIP E-Handbook: Section 3.1

¹⁴ AB 209 expands the SGIP program to non-IOU customers who were previously in-eligible to participate. As non-IOU customers have not yet participated in SGIP, they will be excluded for the host customer study population.

¹⁵ SGIP E-Handbook: Section 3.1

¹⁶ Including cancelled and waitlisted applications.

¹⁷ 56 of the 366 applicants were also the HC and were included in the Applicant web survey.

TABLE 2-4: 2023 SGIP HOST CUSTOMER COUNT BY BUDGET CATEGORY AND PROGRAM ADMINISTRATOR

Budget Category	PG&E	SCE	SoCalGas	CSE	Total
Small Residential Storage	1,629	2,274	692	711	5,306
Equity Resiliency	1,041	427	172	120	1,760
Large-Scale Storage	264	173	72	74	583
Residential Storage Equity	26	28	14	4	72
Non-Residential Storage Equity	13	1	6	1	21
San Joaquin Valley Residential	7	18	0	0	25
Generation	3	1	0	0	4
Total	2,983	2,922	956	910	7,771

Table 2-5 below breaks down the 2023 SGIP applications by budget category and application status (completed, active, waitlisted, or cancelled) as of March 26, 2024.¹⁸ As this table shows, at this time the majority of 2023 applications were still active (47%), with 36% completed, 6% waitlisted and 11% cancelled. Of the 366 applicants who submitted a project in 2023, 51% had at least one application cancelled and 15% had all their applications cancelled. The rate cancellations varied significantly by budget category, with generation, residential storage equity, and large-scale storage being the highest (75%, 44%, and 20% respectively). Due to the sizable share of applications that have been cancelled in 2023, we expanded our study population to include applicants and host customers with cancelled applications to learn more about the primary causes of cancellations, the impact these cancellations have on applicants (and host customers) and to identify what can be done to limit them in the future. We also included applicants and host customers with waitlisted projects to learn more about the status of these projects (installed or on-hold pending the SGIP waitlist) and the probability that these projects will move forward.

¹⁸ It is expected the cancellation rate for the SGIP projects submitted in 2023 will continue to climb as it can take months from project submittal to project cancellation.

TABLE 2-5: APPLICATIONS SUBMITTED IN 2023 BY CURRENT STATUS AND BUDGET CATEGORY

Budget Category	Active		Completed		Waitlist		Cancelled		Total
	#	%	#	%	#	%	#	%	#
Small Res Storage	2,284	41%	2,439	44%	335	6%	488	9%	5,546
Equity Resiliency	1,091	60%	449	25%	120	7%	168	9%	1,828
Large-Scale Storage	480	62%	127	16%	14	2%	159	20%	780
Res Storage Equity	53	50%	6	6%	0	0%	47	44%	106
Non-Res Storage Equity	25	58%	0	0%	11	26%	7	16%	43
SVJ Res	22	88%	0	0%	0	0%	3	12%	25
Generation	1	25%	0	0%	0	0%	3	75%	4
Total	3,956	47%	3,021	36%	480	6%	875	11%	8,332

2.3 EVALUATION GOALS

The goals of this evaluation were to provide longitudinal findings on PA performance;¹⁹ provide feedback on the overarching structure of the program and identify potential improvements related to each budget category; and gain a deeper understanding of the participant experience. In addition, given the statutory directive from AB209 aimed at low-income, the 2023 evaluation emphasized the residential equity pathways to determine recommendations to better serve low-income customers.

The following research questions were addressed by this evaluation.

Research Questions

Timeliness, Clarity, Accessibility and Helpfulness (PA Performance Assessment)

- How clear and timely were the communications from the PAs to SGIP participants in 2023?
 - What plans do the PAs have to address the 2021-2022 PA evaluation recommendations?
 - For communications that have not been clear and timely, what are the biggest challenges? What needs to change in the future?
- How accessible were the PAs to SGIP participants in 2023 during the application process? And how helpful are the PAs to applicants submitting and completing applications?
 - What plans do the PAs have to address the 2021-2022 PA evaluation recommendations?

¹⁹ The CPUC measurement and evaluation plan calls for “an annual review of the administrative performance of each PA. The reports are to include, at minimum, a survey of program participants regarding the PA’s clarity and timeliness of oral and written communications, their accessibility, their helpfulness to applicants submitting and processing applications, and the clarity and helpfulness of their websites.”

- For areas where the PAs have not been accessible or helpful, what are the biggest issues and what needs to change in the future?
- How has the participant experience and satisfaction with the PAs' helpfulness, accessibility, and timeliness changed from previous program years?
 - For those who remain less than fully satisfied, what are the biggest changes that could improve satisfaction?
- What improvements can be made to the administration of the SGIP with respect to PA timeliness, accessibility, helpfulness?

Additional PPPE Lenses and Topics

Host Customer Lens

- What types of host customers are accessing the incentives, by customer class, geographic location, on-site load, etc.?
- How have applicants/developers been marketing the SGIP to customers eligible for the equity budget categories? How can participation in these categories be increased?
- What is motivating them to participate and what are the barriers to participation (from the participant perspective)? What are the primary reasons for project cancellation and what can be done to reduce these cancellations?
- Are host customers satisfied with the performance of their SGIP system? Are they using it as they had anticipated?
- How can host customers' participation experience be improved?

Applicant/Developer Lens

- What are the biggest hurdles from the applicant/developer perspective (by budget category) and how can their participation experience be improved?
- Is the program bringing in new project applicants/developers (particularly with the addition of the equity budget categories) and if so, what are the characteristics of these new entrants to the program?
- How have applicants/developers been marketing the SGIP to customers eligible for the equity budget categories? How can participation in these categories be increased?
- Why have past cancellations been so high? How can cancellations be prevented in the future?

Overarching Program

- What do the PAs see as the biggest hurdles to running an efficient program? What program processes need to be changed or streamlined (both overall and by budget category) to make the program more effective?

- What improvements can be made to the program to help the program be both targeted and nimbler in the future?
- Specifically for the equity budget categories, are there additional lessons learned for the future? Is the addition of the equity budget categories “bring[ing] positive economic and workforce development opportunities to disadvantaged communities”²⁰, and if so, how is this being tracked and what have you learned?

2.4 REPORT CONTENTS

The remainder of this report includes the following:

- **Section 3** describes the research methods and data sources used in this study.
- **Section 4** presents findings from the PA assessment regarding applicant and host customer satisfaction with the PAs overall as well as their accessibility, helpfulness and timeliness and clarity of communications.
- **Section 5** presents process evaluation findings from host customer and applicant (“participants”) lenses.
- **Section 6** presents process evaluation findings from market and regulatory lenses.
- **Appendix A** presents the survey instruments used for the PA and Applicant in-depth-interviews, and the Applicant and Host Customer web surveys.
- **Appendix B** presents the Host Customer survey response frequencies by PA.
- **Appendix C** presents the Applicant survey response frequencies by PA.
- **Appendix D** highlights the similarities and differences naming convention for various required documentation between the handbook, the web portal upload link, the online checklist, and the forms themselves.
- **Appendix E** provides a summary of study recommendations.

²⁰ Decision 17-10-004, *The Decision Establishing Equity Budget for Self-Generation Incentive Program*, page 28.

3 DATA AND METHODS

This section summarizes the research activities and sources of data used in this study. The primary data sources used in this evaluation include:

Pre-existing data sources:

- The SGIP Statewide Project Database²¹ managed by the PAs.
- Past SGIP PA evaluation reports.

Data from research activities:

- In-depth interviews (IDIs) conducted with PAs by Verdant evaluation staff (Section 3.2)
- In-depth interviews (IDIs) conducted with Applicant/Developers by Verdant evaluation staff and Web surveys completed by SGIP applicants (Section 3.3)
- Web surveys completed by SGIP host customers (Section 3.4)

The research activities outlined above enabled the evaluation team to study participants' experience with and perceptions of the program. The PA IDIs gave context to the evaluation team regarding administrative practices and changes to the program in 2023 and the IDIs and web surveys with applicants/developers and host customers allowed for direct feedback to be collected from those who had experience participating in the program in 2023.

3.1 TRACKING DATA REVIEW AND REVIEW OF PAST FINDINGS

Verdant reviewed the number and types of applicants and host customers by budget category both to understand participation and to inform the survey samples. In addition, the evaluation team analyzed the SGIP tracking data to understand:

- Timing of the application process, specifically how long it takes applications to move through each step of the application process in 2023 and how this has changed from prior program years.
- Characteristics of applications by budget category, including average system size (kW) and incentive (\$), whether the storage is paired with PV and host or third-party owned, geography, and DAC status.

²¹ Accessed January 30, 2024, to define the sample population and updated on March 26, 2024, prior to the launch of host customer and applicant web surveys, to ensure the data reflected the current/recent status of the SGIP applications.

- Applicant/developer characteristics, including volume of applications submitted, cross budget category participation, whether the equity budget categories have brought in new developers/installers.
- Host customer characteristics and pathways to participation (i.e., characteristics, such as medical baseline, well pump, PSPS events, that qualified host customers for the program).
- Reasons for cancellations, by PA, LSE, manufacturer, developer, size of system, geography and budget category, and whether there have been changes to application cancellations (i.e., frequency, stage of the process, reasons for cancellations) during 2023 compared to prior program years.

3.2 PROGRAM ADMINISTRATOR IN-DEPTH INTERVIEWS

Verdant conducted in-depth interviews with each of the four program administrators (PG&E, SCE, SoCalGas, and CSE). The purpose of the PA in-depth interviews is to learn directly from each of the PAs about their administration of the program in 2023. PAs were interviewed on various topics relating to program operations and management including changes to the program design and implementation in 2023 based on past recommendations, program challenges faced in 2023 and changes planned for the program in 2024 and beyond. The in-depth interviews provide Verdant with a deeper understanding of the program and ideas for program streamlining and improvement in the future. Appendix A.1.1 presents the list of questions used to guide the PA interviews.

3.3 APPLICANT/DEVELOPER IN-DEPTH INTERVIEWS AND WEB SURVEYS

The 2023 PPPE evaluation gathered information from SGIP applicants through a combination of in-depth interviews and quantitative web survey. In-depth interviews with applicants/developers were added to the evaluation in 2023 to gain a deeper understanding of the program and the applicant's experience.²² Prior to the commencement of the applicant data collection efforts, all 2023 applicants were sent an email containing a letter from the CPUC explaining the purpose and validity of the study.

In addition to assessing the performance of the PAs, the applicant/developer interviews and web surveys explored their experience with the program and areas where the program could be improved and/or streamlined. Primary research questions included:

- What challenges have they encountered with the program? What has been the biggest challenge? How does their experience vary by budget category (if they have experience with more than one)?
- What concerns or hesitations do they see from the host customers' perspective? Does this vary by budget category or PA?

²² As noted above, for the majority of 2023 applications (92%) the applicant was also the developer.

- What marketing channels and messaging work best? Is ME&O different between equity and non-equity customers?
- [IF EXPERIENCED WITH CANCELLATIONS] Why were their projects cancelled? What additional support could have helped to allow them to either screen these projects out earlier or provide more support to get these projects through the process?
- [IF EXPERIENCED WITH WAITLISTS] Do they currently have projects that are waitlisted? How many and in what budget categories? What percentage of their waitlisted projects tend to proceed even without the SGIP funds? What type of communication or improvements are needed from the PA regarding their waitlisted application(s).
- Where would they recommend changes to streamline the program and make participation easier for developers and host customers?

Applicant/Developer Interviews

An initial wave of applicant/developer interviews was conducted with a mix of prolific and non-prolific applicants/developers who have served multiple budget categories to understand the most pressing issues facing applicants and to determine whether these issues warrant expanding the topics explored in the quantitative web survey. These initial interviews also explored cancellations across the budget categories to better understand barriers to participation (both from the applicant/developer and host customer²³ perspective). These interviews provided the opportunity for applicants/developers to identify challenges and make recommendations not covered in past evaluation efforts. The findings of the first wave of in-depth applicant/developer interviews were used to adjust the web survey instruments.

A second wave of applicant/developer interviews occurred after the launch of the applicant web survey. These interviews allowed the evaluation team to dig deeper into issues identified in the web survey.

Applicant/Developer Web Surveys

All 2023 SGIP applicants with active applications (i.e. at least application that was not cancelled or waitlisted²⁴) who were not contacted for the in-depth interviews were included in the web surveying effort. Each applicant in the survey population was sent an initial email invitation to participate in the survey and those who did not respond to the initial invite were sent up to two reminder emails.

Table 3-1 summarizes the applicant population and the number of in-depth interview and survey completes by PA. Surveyed applicants were asked to respond to questions about each PA they interacted with in 2023. The achieved relative precision was estimated for each PA based on the responses provided

²³ This would be according to the applicant.

²⁴ Applicants with only cancelled or waitlisted applications were removed from the applicant sample due to their limited interaction with the program.

to a 1-5 scalar question about their satisfaction with the PA as an SGIP administrator. Overall, the relative precision target of 10% or less was achieved or nearly achieved for all PAs except CSE and a response rate of 21% was achieved including the interviews and web surveys (representing 45% of the applications submitted in 2023). Response frequency tables for each closed-ended question in the applicant survey are included in Appendix C.

TABLE 3-1: SUMMARY OF APPLICANT DATA COLLECTION BY PROGRAM ADMINISTRATOR

PA	Applicant Population ²⁵	Interview Completes	Web Survey Completes	Total Completes	Achieved RP ²⁶
PG&E	168	12	25	37	9%
SCE	134	13	13	26	12%
SoCalGas	61	9	4	13	11%
CSE	57	6	6	12	21%
Total	281	17	42	59	

The total number of completed applicant interviews and surveys by budget category is provided in Table 3-2. Throughout this report responses to scalar questions are reported as both weighted on non-weighted averages. Weights are based on the proportional number of applicants in each budget category. For example, if 25% of applicants represented small residential storage, the responses from these applicants represent 25% of the overall score. The responses to non-scalar questions are unweighted.

²⁵ A single applicant could have applications in multiple PA service territories or for multiple technology types. Therefore, the applicant population and target sample totals do not equal the sum of each PA's subtotals.

²⁶ Achieved relative precision was calculated from results of the applicant survey question: How would you rate your experience with [PA] overall, in relation to their role as an SGIP administrator in 2023 (Please rate your satisfaction on a 1 to 5 scale, where 1 is not at all satisfied and 5 is extremely satisfied)? Three interviewee respondents were excluded from this RP calculation as they did not provide a response to this question.

TABLE 3-2: APPLICANT DATA COLLECTION BY BUDGET CATEGORY

Budget Category*	Applicant Population	% of Applicant Population	Interview Completes	Web Survey Completes	Total Completes	Achieved Sample Distribution
Small Residential Storage	181	64%	12	24	36	20%
Equity Resiliency	161	57%	8	25	33	20%
Large-Scale Storage	117	42%	11	16	27	23%
Res Storage Equity	15	5%	3	0	3	20%
Non-Res Storage Equity	11	4%	3	1	4	36%
San Joaquin Valley Res	1	0.4%	0	0	0	0%
Total	281	100%	17	42	59	21%

* Two applicants were interviewed who submitted applications to the Generation budget category in years other than 2023 and thus are not included in this table.

Applicants that submitted 100 or more projects in a calendar year are referred to as “prolific” applicants. In 2023 there were 14 prolific applicants who submitted 63% of the applications submitted. Verdant attempted to interview or survey all prolific applicants and was able to complete interviews/surveys with nine of them.

3.4 HOST CUSTOMER SURVEY

SGIP host customers were surveyed via web surveys and topics included their experience and satisfaction with the application process, PA communications, and SGIP websites and Handbook. New questions were asked in 2023 related to participation barriers, how to best raise awareness and promote the program in the future, and suggestions for program improvement. Two additional surveys were fielded in 2023 with host customers whose SGIP application had been cancelled or waitlisted. The host customer cancellation survey focused on identifying the primary reason for cancellation and plans to install a battery storage system in the future. The host customer waitlisted survey focused on current status of the battery storage project (whether it had been installed or was on-holding pending the SGIP application) and the customers understanding of the likelihood of receiving the SGIP incentive in the future.

Prior to the commencement of the host customer data collection efforts, all 2023 host customers were sent a message through the SGIP web portal (sent by Energy Solutions from selfgenca.com) which contained a letter from the CPUC explaining the purpose and validity of the study. After this notification message was sent out, email survey invitations which included a web link were sent to 4,386 host customers with active or completed applications, 646 with cancelled applications and 456 with waitlisted applications. Email survey reminders were sent to those who had not responded to achieve the desired number of responses. Appendix A.2.2 presents the host customer survey instruments.

Like the applicant survey, the host customer surveys were sent to a sample of customers so results can be reported with high confidence for each individual PA. For sampling purposes, host customers were aggregated based on customer name, contact information, and location and were assigned to a single budget category based on the category with the highest application count for a given host customer.²⁷ Table 3-3 summarizes the host customer survey completes for each PA and survey type (participant, cancelled, and waitlisted). Response frequency tables for each closed-ended question in the host customer survey are included in Appendix B.

TABLE 3-3: HOST CUSTOMER SURVEY COMPLETES BY PA

PA	Host Customer Population	Participant Survey Completes	Achieved RP ²⁸	Cancelled Survey Completes	Waitlisted Survey Completes	Total Completes
PG&E	2,980	280	5%	91	1	372
SCE	2,921	182	6%	67	0	249
SoCalGas	962	122	8%	14	0	136
CSE	910	57	16%	9	203	269
Total	7,767	641		181	204	1,026

Attention was also paid to the distribution of surveys across budget categories and applicant prolific status to ensure the survey results were representative of the different application types and host customers with applicants with various amounts of experience. The distribution of the 2023 host customer population and participant survey completes (excluding the cancelled and waitlisted surveys) across the seven budget categories are provided in Table 3-4. Responses to all 5-point scalar questions reported by PA throughout this report are weighted by the host customer population distribution. All other host customer responses are unweighted. In total 70% of 2023 population of host customers had an applicant who was classified as prolific, similarly 65% of host customer survey respondents had a prolific applicant indicating the representativeness of host customers with prolific applicants was adequate.

²⁷ The majority of host customers (97%) only submitted a single SGIP application in 2023.

²⁸ Achieved relative precision was calculated from results of the host customer survey question: How satisfied are you with your experience with [PAs] in relation to the SGIP? The relative precision estimate is based only on the participant completes as they were the only respondents who were asked this question.

TABLE 3-4: HOST CUSTOMER PARTICIPANT SURVEY COMPLETES BY BUDGET CATEGORY

Budget Category	Host Customer Population	% of Host Customer Population	n Completes	Achieved Sample Distribution
Small Residential Storage	5,306	68%	400	8%
Equity Resiliency	1,760	23%	194	11%
Large-Scale Storage	583	8%	39	7%
Res Storage Equity	72	1%	4	6%
Non-Res Storage Equity	21	0.3%	2	10%
San Joaquin Valley Residential	25	0.3%	2	8%
Total	7,761	100%	641	

4 PA ASSESSMENT RESULTS

This section presents the results from the 2023 PA Assessment which focused on applicant and host customer overall satisfaction with each of the PAs and applicant satisfaction with the PAs' accessibility, helpfulness, and timeliness of communications. We also present an overview of the time it took in 2023 for applications to move through the full application process. Recommendations related to increasing SGIP participants satisfaction with the PAs accessibility, helpfulness and timeliness are woven into the next chapter (Section 5) which explores from a process perspective the journey host customers and applicants go through as they participate in the SGIP.

4.1 OVERALL SATISFACTION WITH SGIP PROGRAM ADMINISTRATOR

Satisfaction with the SGIP PAs in all areas explored by this evaluation has not changed significantly since the prior evaluation, although some participants (mostly prolific) who have participated in the SGIP in past years reported that some things seem to be improving. Applicant's average satisfaction across the board tends to be moderate (ranging from 2.7 to 3.9) mostly due to the complexity of the program, the difficulty applicants often being unable to speak with PA staff to efficiently resolve questions or issues with their application(s), and inconsistencies with the way program rules seem to be applied.²⁹

Host customers reported higher levels of satisfaction with the SGIP PAs (ranging from 3.2 to 3.7), however their interactions were generally limited as the applicants primarily interfaced with the PAs throughout the application process.

During the applicant in-depth interviews, several applicants indicated that their experience participating in the SGIP was very different across the four PAs. Throughout the remainder of this section, we explore the differences in applicant and host customer satisfaction by PAs, as well as by the budget category they applied to and whether the project applicant was prolific or not.

4.1.1 Applicant

As shown in Table 4-1, the average applicant ratings of overall satisfaction with the SGIP PAs in 2023 were lower than those reported in the prior PA evaluation (2021/2022), however the majority of 2023 applicant respondents who had also participated in the SGIP in prior years reported being either more or equally

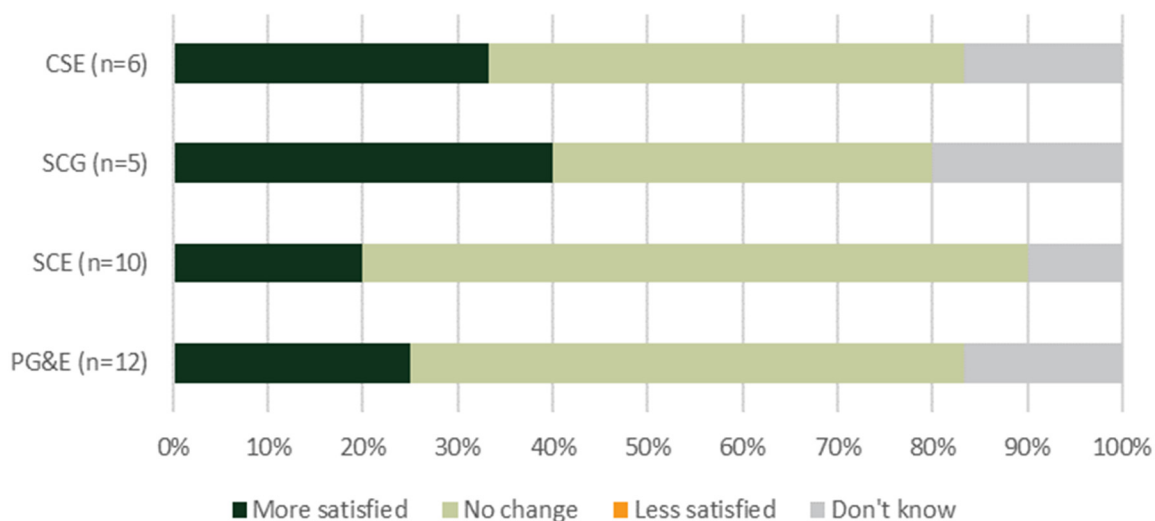
²⁹ As a point of comparison, Verdant evaluated California's SOMAH Program (Solar on Multifamily Affordable Housing) and found that while contractors' satisfaction with the program was moderate (6.6 on a 0-10 scale) primarily due to the application process being burdensome, they were highly satisfied with SOMAH PA. One SGIP applicant who was very familiar with other solar programs (New Solar Homes Program, CSI, SOMAH, LIWP, SASH, and MASH) reported *"the SGIP is no better than these programs and actually worse than several."*

satisfied with the PAs in 2023 (Figure 4-1, no one reported being less satisfied). Due to the change in applicant data collection methods in the 2023 evaluation (in-depth interviews were conducted in addition to web surveys), the table below (as well as similar tables presented later in this section on the PAs' accessibility, helpfulness, and timeliness) provides reported unweighted average satisfaction ratings by data collection method. Interviewed applicants included a larger share of prolific applicants (6 of the 18 interviewed applicants were prolific versus 3 of the 42 surveyed applicants) and submitted an average of 154 applications per applicant (versus surveyed applicants who on average submitted 26 applications per applicant). It is interesting that the satisfaction scores provided by the interviewed applicants were higher for PG&E but lower for the other three PAs. Notably, SoCalGas continued to receive the highest overall rating. The lowest overall average rating (2.6) was from interviewees who had worked with CSE.

TABLE 4-1: APPLICANT OVERALL SATISFACTION WITH SGIP PROGRAM ADMINISTRATORS

PA	YOY comparison (Weighted)		Interviews (Unweighted)			Web Surveys (Unweighted)		
	2023	2021-2022	n	Score	% Respondents Rating 1	n	Score	% Respondents Rating 1
PG&E	3.1	3.5	10	3.4	10%	25	2.9	16%
SCE	2.9	3.2	12	2.8	17%	13	2.9	23%
SoCalGas	3.9	4.1	8	3.9	13%	4	4.5	0%
CSE	3.1	3.4	5	2.6	40%	6	3.7	17%

FIGURE 4-1: APPLICANT OVERALL SATISFACTION WITH PA COMPARED TO PRIOR YEARS



Applicants who provided low satisfaction rankings (1 or 2) were asked why they were dissatisfied with

their PA. Primary reasons were related to PA unresponsiveness (ranging from very slow to no response at all), a lack of customer support, and unclear communication. Further exploration of these types of communication issues are explored as part of the process evaluation in 5.2.4.

4.1.2 Host Customer

Host customers who reported interacting with their PA regarding their battery storage project were also asked about their overall satisfaction with the PAs regarding their administration of the SGIP.³⁰ As shown in Table 4-2, host customers again reported moderate to moderately high levels of satisfaction with the PAs whom they interacted with (the means were virtually unchanged from the prior PA evaluation). While many host customers were satisfied with the PAs, several grievances were common among those who were dissatisfied. Most frequently these were a lack of transparency in the application process or timeline (43%), difficulty communicating with the PAs (43%), and SGIP materials that were difficult to understand (33%). A quarter of host customers were dissatisfied that feedback on their application was provided inefficiently (i.e., a single issue at a time) and nearly 20% reported frustration that they had received conflicting or inconsistent information from various PA staff. We note that host customers interact with applicants rather than PAs - less than half of all host customers indicated that they interacted with the PA, and among the CSE respondents, only 8 of 55 respondents (15%) had any interaction with the PA.

TABLE 4-2: HOST CUSTOMER SATISFACTION WITH SGIP PA AMONG THOSE INTERACTED WITH THEIR PA

PA	Average Rating 2023	Rel Prec 90% Conf	# (and %) of Respondents who Interacted with PA	% Respondents Rate 5	% Respondents Rate 1	Average Rating 2021-2022
PG&E	3.2	5%	117 (48%)	21%	16%	3.1
SCE	3.3	6%	78 (46%)	32%	12%	3.4
SoCalGas	3.7	8%	33 (31%)	33%	6%	3.8
CSE	3.7	16%	8 (15%)	38%	0%	3.6

4.2 TIMELINE OF PROGRAM PROCESSES

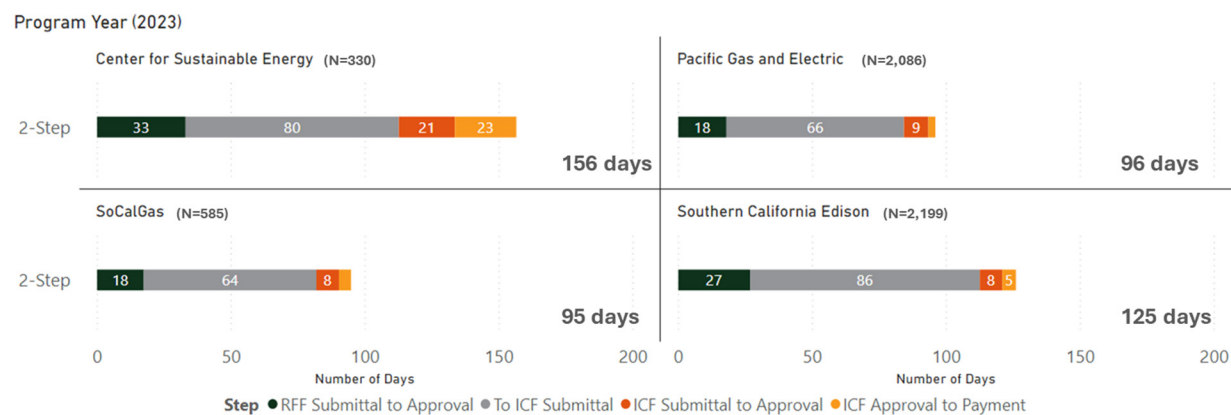
The SGIP program tracking data contains the dates when an application reaches or completes key steps in the SGIP application process. The evaluation team analyzed this data and calculated the time (in days) the average application spent in each SGIP step. Figure 4-2 presents the average number of days applications³¹ (non-waitlisted and non-cancelled) spent in each of the steps of the two-step application

³⁰ Overall, 41% of host customers reported interacting with their PA regarding their battery storage project. This rate varied significantly by PA from a high of 48% for PG&E to a low of 15% for CSE. SCE and SoCalGas host customers reported 46% and 31%, respectively.

³¹ To ensure adequate time for applications to move through the process, only applications submitted prior to the end of Q3 2023 were included in this analysis. Data was pulled on 3/26/2024 to complete this analysis.

process in 2023.³² In 2021 the average two-step application spent 276 days moving through the application process. This was reduced significantly in 2022 to around 130 days and it appears that PG&E and SoCalGas have made even further timeline improvements since then. CSE, who had the fewest applications in 2023 (CSE had roughly a quarter of the number of applications submitted in 2023 that PG&E had), is taking more than 50% longer to process two-step applications than PG&E or SoCalGas and SCE is taking 25% longer. It is important to note that the documentation requirements differ between PAs and as CSE administers the program on behalf of an IOU (as opposed to being the IOU) they do not have access to SDG&E's systems. Due to this lack of access they are unable to verify that the host customer is on an approved TOU rate, nor do they have access to customers' bills, load data or PTO letter. We recommend CSE (and any future third-parties who implement the SGIP on behalf of an IOU) work with SDG&E to identify processes where by this information can be provided to CSE directly from SDG&E in order to remove some of the application burden from the applicant or host customer. Reducing SGIP application burden will become even more important as the program increases its focus on the equity segment (AB 209).

FIGURE 4-2: TWO-STEP PROCESS AVERAGE TIME (IN DAYS) SPENT WITHIN EACH STEP IN 2023



In our in-depth interviews, we heard information that supports the finding that CSE's process has slowed. Respondents mentioned that "CSE processors are very slow and this doesn't seem to be improving over time." Another stated that "CSE takes a long time to review applications - other utilities usually review them within two weeks, but CSE it usually takes a month or more. And after the incentive claim gets approved, all the other utilities issue payments within 30 days, but for SDG&E it takes 45 business days." (And one applicant reported a customer waiting more than 60 business days without getting any rebate.)

4.3 APPLICANT SATISFACTION WITH PA ACCESSIBILITY, HELPFULNESS AND

³² This analysis was only conducted on two-step applications. No PY2023 three-step made it all the way from RRF to payment at the time these data were pulled.

TIMELINESS

The SGIP application process has many steps and requires a significant amount of documentation to be provided to ensure program compliance (an in-depth review and discussion of the application process is provided in Section 5.2.3). Applicants and host customers, over the course of their SGIP participation, typically interact with the PA in some manner to ask clarifying questions or to resolve an issue with application. PAs can influence participants' experience with the SGIP through helpful, clear, and timely communications as applicants and host customers often relying on these communications to learn about issues holding up their application, important deadlines pertaining to program milestones, and changes that have been made to program incentives or eligibility. The interactions they have with PAs can significantly affect their overall outlook and satisfaction with the SGIP. This section explores applicant satisfaction with the PAs with respect to their ability to gain access to them (accessibility), the value of the information they provide (helpfulness), and the time it takes to get their issues resolved (timeliness).

Applicants were asked to rate their satisfaction with the PAs they had interacted with in 2023 regarding their accessibility, helpfulness, and timeliness. Table 4-3 below is color coded, where green represents the highest scores and red represents the lowest scores, highlighting applicant satisfaction in these three areas. Applicant satisfaction was moderate in 2023, hovering around 3.0 for all PAs except SoCalGas which received satisfaction ratings averaging in the upper 3's in all categories. Satisfaction ratings across all PAs and all three program aspects were slighted lower than reported in the 2021—2022 PA evaluation, however virtually all applicants who had participated in the SGIP in past program years (which represented less than half of survey respondents) reported no change or an increase in their level of satisfaction with the PAs in these areas (Table 4-4). It is interesting to note that across all PAs applicants reported satisfaction with the PA's helpfulness was higher than their accessibility or timeliness. The one very low rating (1.8) was with the timeliness of CSE communications (from the in-depth interview respondents who are most often prolific applicants who have submitted applications to all PAs, web survey respondents who are less likely to be prolific and have experience with other PAs provided relatively high ratings of timeliness for CSE). This is consistent with the findings about project timelines by PA, described above.

TABLE 4-3: APPLICANT SATISFACTION WITH ACCESSIBILITY, HELPFULNESS, AND TIMELINESS BY PA

	Program Aspect	# of Respondents	Average Wt'd Rating 2023	Average Rating 2021-2022	Interview	Web Survey
PG&E	Accessibility	37	2.9	3.3	2.9	2.8
	Helpfulness	36	3.1	3.6	3.2	2.9
	Timeliness	38	2.9	3.0	2.7	2.8
SCE	Accessibility	24	2.7	3.1	2.5	2.7
	Helpfulness	25	3.3	3.4	3.0	3.4
	Timeliness	26	2.9	2.9	2.7	2.7
SoCalGas	Accessibility	12	3.7	4.2	3.9	3.8
	Helpfulness	12	3.9	4.2	3.9	4.5
	Timeliness	11	3.6	4.1	3.7	4.0
CSE	Accessibility	10	3.2	3.6	2.8	3.8
	Helpfulness	11	3.4	3.5	2.6	4.2
	Timeliness	10	2.9	3.3	1.8	3.8

TABLE 4-4: APPLICANT REPORTED CHANGE IN SATISFACTION WITH PA ACCESSIBILITY, HELPFULNESS, AND TIMELINESS IN 2023 VS. PRIOR YEARS

Program Administrator	Change in Satisfaction with...	More Satisfied in 2023	Less Satisfied in 2023	No Change	Don't Know	n
PG&E	Accessibility	27%	0%	64%	9%	11
	Helpfulness	31%	0%	62%	8%	13
	Timeliness	31%	0%	54%	15%	13
SCE	Accessibility	20%	0%	70%	10%	10
	Helpfulness	25%	0%	67%	8%	12
	Timeliness	42%	0%	42%	17%	12
SoCalGas	Accessibility	40%	0%	40%	20%	5
	Helpfulness	43%	0%	43%	14%	7
	Timeliness	57%	0%	29%	14%	7
CSE	Accessibility	33%	0%	50%	17%	6
	Helpfulness	25%	0%	75%	0%	8
	Timeliness	50%	25%	25%	0%	8

The evaluation team compared applicants' satisfaction with the PAs (in terms of their accessibility, helpfulness, timeliness, and overall) by the SGIP budget categories to which they applied (Equity Resiliency, Large Storage, or Small Residential Storage)³³ and their prolific status to determine whether

³³ Due to small sample sizes, Generation, San Joaquin Valley, Residential Storage Equity, and Non-Residential Storage Equity budget category applicants were excluded from budget group breakouts.

any correlation existed. Table 4-5 shows that satisfaction in all areas was highest for applicants with Small Residential Storage applications and lowest for those with Equity Resiliency applications. Prolific applicants (those who submitted 100 or more applications in 2023) reported higher satisfaction in all areas than those who were not prolific. As addressed further in Section 5.2 (Applicant Lens), these results indicate that prolific applicants, who have spent considerable time working with the program and in many cases developed personal relationships with the PAs (many of the prolific applicants interviewed named PA staff they can reach out to if they have issues), were better able to navigate the program and thus reported significantly higher levels of satisfaction (although often the process was still described as difficult). Unfortunately, the results below also show that for non-prolific applicants the program is harder to navigate, and they view the PAs as unhelpful, inaccessible, and slow to respond to their many issues.

TABLE 4-5: APPLICANT SATISFACTION (UN-WEIGHTED) BY BUDGET CATEGORY AND PROLIFIC STATUS

	Accessibility		Helpfulness		Timeliness		Overall Satisfaction	
	n	Rating	n	Rating	n	Rating	n	Rating
Budget Category								
Equity Resiliency	14	2.5	15	2.6	17	2.4	15	2.5
Small Res Storage	26	3.4	27	3.6	27	3.2	26	3.5
Large Scale Storage	9	2.6	9	3.1	9	3	8	2.9
Prolific Status								
Prolific Applicant	9	3.8	9	4.1	9	3.5	9	4
Non-Prolific Applicant	44	2.5	46	2.8	48	2.6	44	2.7

The moderate levels of satisfaction presented above are consistent with the findings presented in the process evaluation results (Section 5.2.4 Sources of SGIP Information and Communications Methods) which found there is a need for improvements in PAs communication methods and timeliness. While most applicants (84%) reported PAs responded to their inquiries within 10 business days (a long time to wait for an email response to a what could be a simple question that could be answered in minutes on the phone and compounded by the fact that 20% to 40% of applicants (by PA) reported typically having 10 or more questions per SGIP application), 18% of SCE applicants and 12% of PG&E applicants reported it taking longer than six months for the PA to resolve an issue with one of their applications.

Reasons applicants provided for dissatisfaction with the PAs (ratings of 1 or 2 on a 1-5 scale) in these areas included:

- **Accessibility** - Applicants who reported low levels of satisfaction with the PA's accessibility continued to report a significant frustration with the inability to reach the PA by phone (the phone line always goes directly to voicemail) and the lack (or incredibly delayed) response to emails or voicemails.

“

Very hard to get in touch with a PA. You send an email into the abyss and just have to wait. You never know if the email was received or reviewed

It is very hard when you are not able to call and speak to an administrator. Relying solely on email communication makes it so you never know if your inquiry was received and/or being worked on. I understand the administrators are busy, but some issues are straightforward and take months to get resolved when they seemingly could be resolved in hours or days

”

- **Helpfulness** - Applicants who were dissatisfied with PA helpfulness report their dissatisfaction was primarily related to unclear, vague, inconsistent, inaccessible (i.e. overly technical) or unhelpful program support.

“

the response didn't seem to answer the questions... sort of generic responses

A lot of the information required is highly technical and the instructions are not very helpful

Every time I had a legitimate question I would get a vague response. I then asked a different question only to get the [same] response

”

- **Timeliness** - Reasons provided by applicants for their low levels of satisfaction with PA timeliness in 2023 were related to long timelines to get responses to questions or to get projects reviewed.

“

They would take several months to review projects at times

This is a complicated process and when you have to wait several business days over each question it makes things painstakingly slow

We have one application that has been about two years. It keeps falling through the cracks and we have to reach out and ask about it. It has been in the inspection phase two times and is stuck there again!

”

The in-depth interviews that were conducted with applicants as part of this year’s evaluation allowed us to go deeper into issues applicants experienced throughout the SGIP application process. It also allowed us to talk about the experiences they had with each of the PAs and gain a better understanding of their perceptions of how each of the PAs were doing as program administrators. Throughout these discussions multiple respondents mentioned significant frustrations and deficiencies with the program processes, but

many³⁴ specifically called out deficiencies with CSE as a PA. The feedback provided by applicants specifically on CSE included:

- CSE is too strict, and their requirements cause customers to get upset as they can lead to long project delays. Notably, many of the requirements where they feel CSE is too strict they find the other PAs will work with them on. Applicants felt that CSE needs to be more flexible to accommodate customers. CSE claims they follow the exact requirements included in the SGIP Handbook, however it seems that some requirements may be subject to interpretation and the PAs have differing approaches to those interpretations which can impact project timelines and burden.
- CSE's application review process has gotten worse in the past year (one applicant hypothesized this was due to staff turnover at CSE however CSE states they have had some downsizing but little turnover). Applicants felt CSE used to have consistent reviewers who understood the program and would work with them, but find the new reviewers are less informed about the process and now applicants are often in the position of having to educate them.
- CSE has overcomplicated application processes, they "nitpick at the wrong things", and they "lack flexibility with project documentation submissions", according to applicants. As there is no way for applicants to speak with anyone at CSE to discuss their application challenges, the progress made on CSE applications is very slow. Multiple applicants requested CSE consider offering office hours, so they have a forum to discuss their issues. It should be noted that as CSE administers this program on behalf of SDG&E and they are not an IOU as the other PAs are, they lack access to some information (such as customer bills, rates, etc.) that the other PAs have internal access to. CSE should work with SDG&E to see if they can provide some of this information to CSE such that the application and documentation burden is lowered on applicants and host customers.
- One applicant blames the slowdown in CSE applications on the way they have been handling the program, which they described as different from other PAs. The PAs should arrange meetings periodically to ensure they are in alignment with how they are administering the program and processing and approving program applications.

³⁴ Of the 18 interviews completed, six had submitted applications to CSE in 2023. Five of the six provided satisfaction ratings for all four of the PAs (they were all prolific and had worked with all of the PAs in 2023). The sixth was not prolific and did not provide satisfaction ratings as he ran out of time for the interview. All but one of these prolific applicants were significantly less satisfied with CSE as a PA.

5 PROCESS ASSESSMENT THROUGH PARTICIPANT LENSES

This section describes both the host customer journey and the applicant journey. Most of this section focuses on 2023 battery storage participants (as opposed to the generation participants) as they made up nearly 100% of 2023 applications.

- **Customers** are primarily interacting with the applicant, not the PA. Because the applicant is usually the one doing the application (except in the case where the host customer is the applicant), they are protected a bit from the application process; however, many of the requests and delays trickle down to the customers.
- **Applicants** interact most frequently with the program and the PA. Since they are responsible for completing the application (and have more experience with the program) we describe the full application process within the applicant section of this write up.

5.1 HOST CUSTOMER LENS – THE CUSTOMER JOURNEY

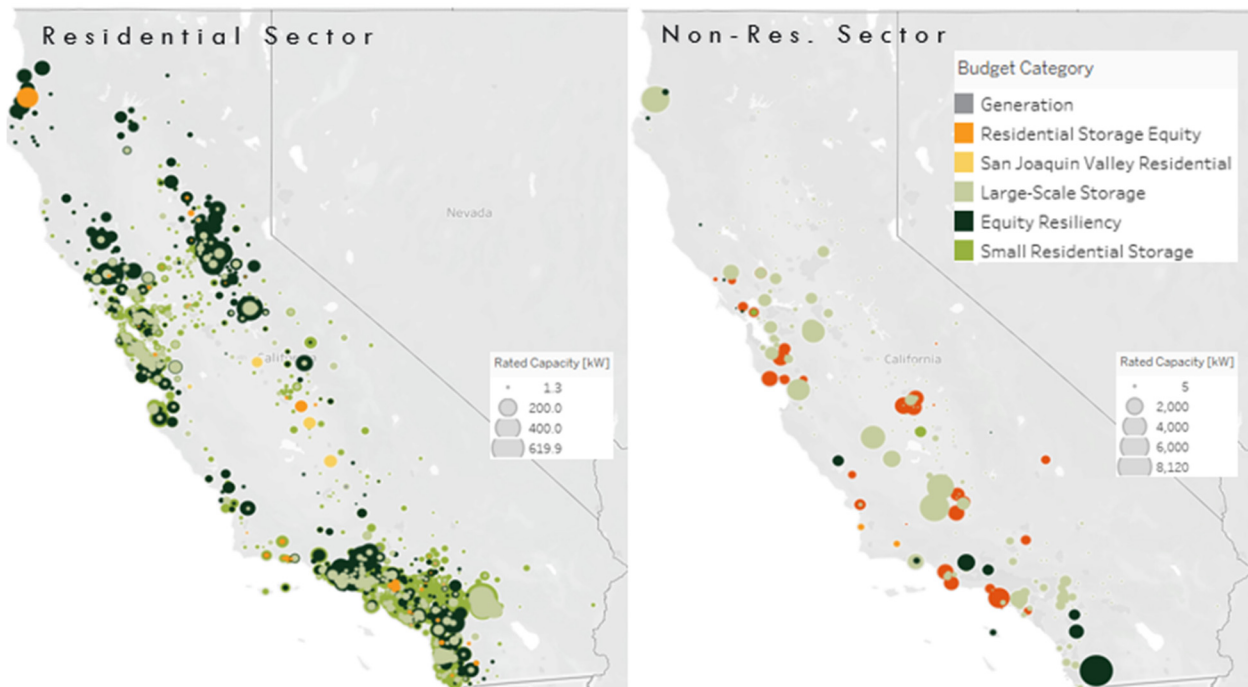
The visual below presents the Host Customer Journey discussed throughout the rest of this section.



5.1.1 Who is participating and what are they installing?

Residential customers applying to the SGIP are located across three geographic regions: 1) the San Francisco Bay Area, 2) the Central Valley, and 3) the Southern California Coastal Region. The figure below shows the distribution across California. Non-residential applicants (shown on the right) are less concentrated than residential applicants (on the left), largely due to the smaller volume of applications.

FIGURE 5-1: WHERE HOST CUSTOMERS ARE LOCATED THROUGHOUT THE STATE



In 2023, residential storage projects accounted for 96% of the applications during this period, with non-residential applications comprising only 4%.^{35, 36} Most projects applied for the program under two budget programs; Small Residential Storage made up 69% of the residential applications while Equity Resiliency made up 22%. Interestingly, there were also another 6% of residential customer applications which applied under the Large-Scale Storage budget program, suggesting a number of larger-than-average residential systems (the remaining 3% applied to one of the other budget categories). Most of the non-

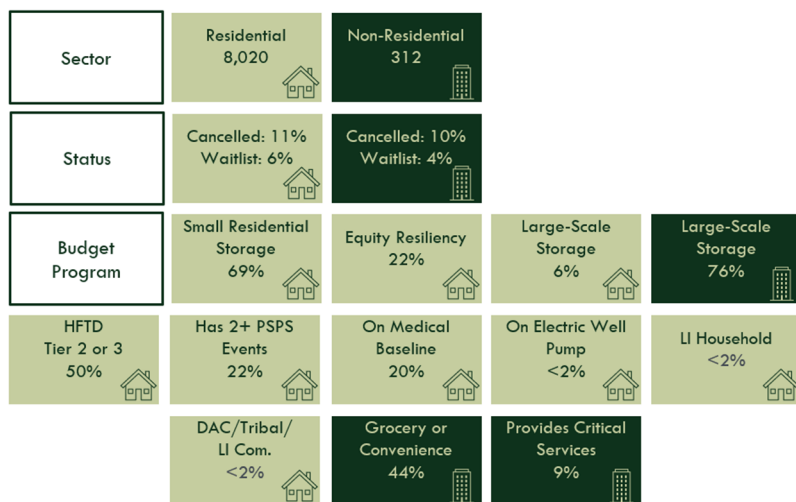
³⁵ 76% of the nonresidential applications were submitted to Large-Scale storage and 14% were submitted Non-Residential Equity. As noted by one applicant, there currently isn't a pathway for non-equity non-residential customers with systems smaller than 10kW to participate in the SGIP.

³⁶ As of the end of March 2024, 17% of 2023 residential applications were either cancelled or waitlisted, while 14% of 2023 applications in the non-residential sector were cancelled or waitlisted. Further insights into these applications are delineated in Section 5.3 below.

residential customers applied under the Large-Scale Storage budget category (76%).

Exploring other key characteristics, we found half of the residential projects were situated in a Tier 2 or Tier 3 High Fire Threat District (HFTD), and 22% of residential projects had experienced two or more Public Service Power Shutoff (PSPS) events in the last year. Roughly 20% of residential households who submitted applications were on a medical baseline and 2% rely on an electric well pump. Notably, most of the available SGIP funds fall under the

FIGURE 5-2: HOST CUSTOMER DEMOGRAPHICS



Equity Resiliency budget category, for which eligibility requires a HFTD or PSPS classification to be eligible. Only three applications were interconnected under a virtual net energy metering (VNEM) tariff. Of the non-residential applications, 64% were identified as ‘commercial’, 44% had a Grocery or Convenience Store NAICS, and 9% provided critical services (gas, electric, water, wastewater, or flood control). Finally, only four generation projects applied to the program during 2023 with three of them have been cancelled.

In addition to the findings above, it is interesting to highlight the demographics of customers who do not appear to be participating in the SGIP. Only one percent of applications fell under the Residential Equity budget category, indicating that low-income households or households located within a disadvantaged community (DAC), tribal area, or low-income community do not seem to be applying to the program. The upcoming program changes stipulated by the AB 209 Decision (D. 24-03-071) were designed to increase participation in these communities.

Figure 5-3 highlights the breakdown of the equipment slated to be installed at a host customers site during 2023. Most host customers planned to, or installed, Tesla systems, with an average residential capacity of 23 kWh. There were also many Enphase Energy and SunPower systems installed or planned. Of the 81 non-residential systems applying for SGIP incentives in 2023, the average rebated capacity was 2.6 MWh. LG EnergySolution only had one SGIP project, but the system size was 7.6 MWh. Non-residential systems grouped into the “Other” manufacturer category applied for incentives based on rated capacities as large as 28 MWh. The distribution of projects and capacity stays largely consistent across all residential and nonresidential budget categories.

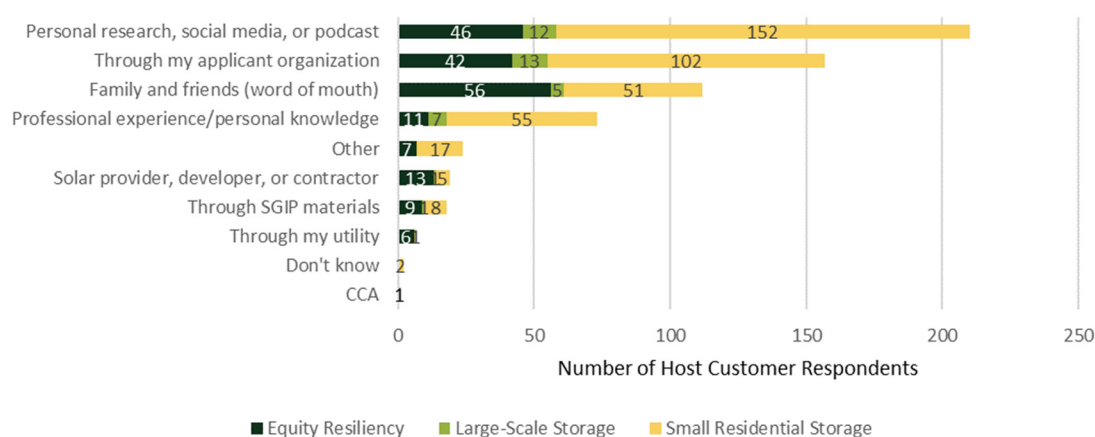
FIGURE 5-3: COUNT OF SYSTEMS AND AVERAGE KWH CAPACITY



5.1.2 How do customers find out about storage options?

Participating customers often seek out storage options (through personal research or information from friends and family), however, many also find out about battery storage from applicants (such as a solar installer during the installation of their PV system). Looking at sources of battery storage awareness by budget category we see the primary source of awareness varies by budget category with Small Residential customers most often learning through personal research (39% vs. 34% across all categories), Large Scale Storage learn through their applicant (33% vs. 25% overall) and Equity Resiliency customers learn through friends and family (29% vs. 18% overall). While most host customer respondents were residential customers, three non-residential customers reported learning about storage through their applicant, personal research, social media, and professional experience.

FIGURE 5-4: HOW HOST CUSTOMERS LEARNED ABOUT STORAGE BY BUDGET CATEGORY



Generally, customers pursue solar (with or without storage), not SGIP, according to applicants. “They

come for solar.” From a review of developer websites, marketing messages include:

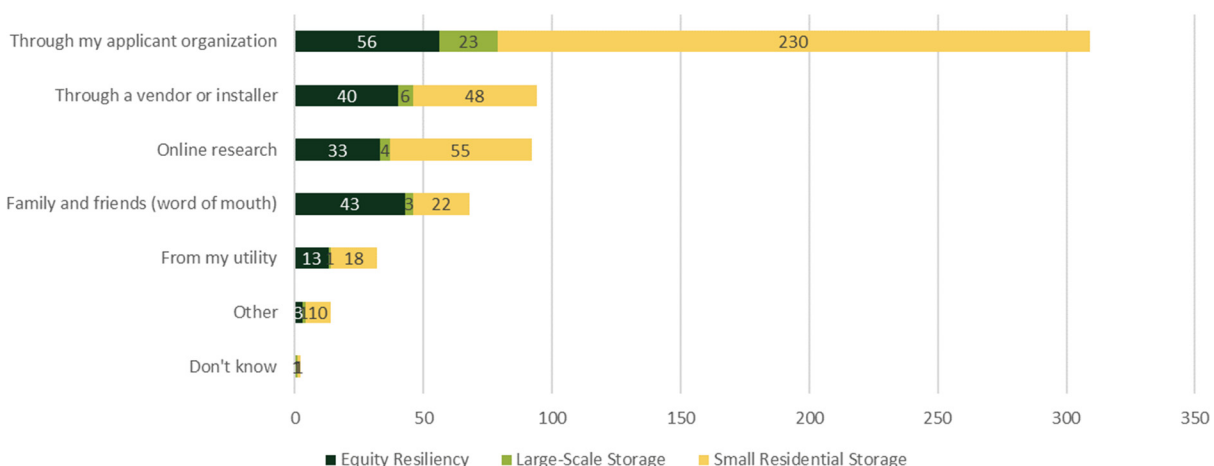
- “Your Electric Bills Is Rigged! Let us pay it for you, while you go solar plus battery now!”
- “Make, use, save, and sell your own power!”
- “Battery Storage’s Time to Shine”
- “Save money. Power your sustainability goals.”
- “Power Life on Your Terms. Get ahead of your energy needs with cutting-edge solar and home backup.”

Notably, with the combination of funding restrictions and limited funding in 2023, applicants stated that they no longer directly market SGIP to customers. While some applicants indicated that they had used SGIP as a marketing tool in the past when the funding was guaranteed (i.e., there was more Equity Resiliency budget), the volatility of the funding source and the lack of clear information about the incentive amounts causes many applicants to be cautious about how they present the SGIP funds.

5.1.3 How do customers find out about the SGIP?

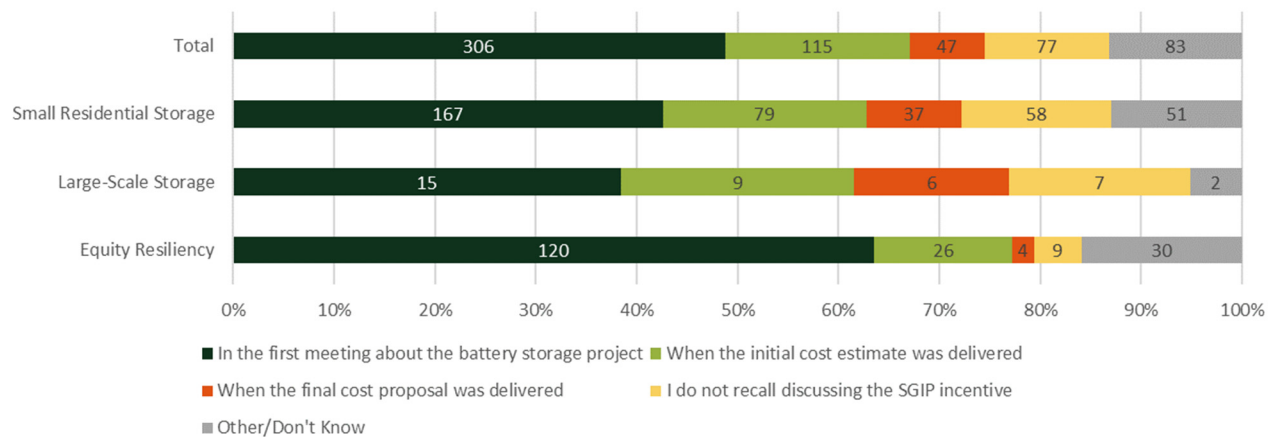
While participants seek out solar (or solar/storage) options, they usually find out about the SGIP from their applicant or vendor/installer when they go to pursue a storage or solar project (Figure 5-5). Although Equity Resiliency customers also most often reported their applicant was how they first learned about the SGIP, they were also much more likely to report hearing about it through friends and family than Small Residential Storage customers. According to applicants interviewed, when applicants/installers do talk about SGIP, some mention that it is an incentive for participation rather than a rebate and almost all make sure that their customers understand the caveats that the money is only available if the project gets accepted...it is not guaranteed. Generally, SGIP is explained as a way to help pay for the project.

FIGURE 5-5: FROM WHOM HOST CUSTOMERS FIRST HEARD ABOUT THE SGIP



Most host customers recall talking about the SGIP incentive in their first meeting to discuss the battery storage project, however some reported they didn't find out the SGIP until later (e.g., when the final cost proposal is delivered). Some applicants reported presenting host customers with cost proposals that show pricing with and without the SGIP incentive since the funding cannot be guaranteed. One developer mentioned that they always provide *"the potential for SGIP"* in the bid, including the possible rebate amount, the *"projected after rebate total,"* and the payback period.

FIGURE 5-6: WHEN HOST CUSTOMER'S FIRST DISCUSSED THE SGIP INCENTIVE



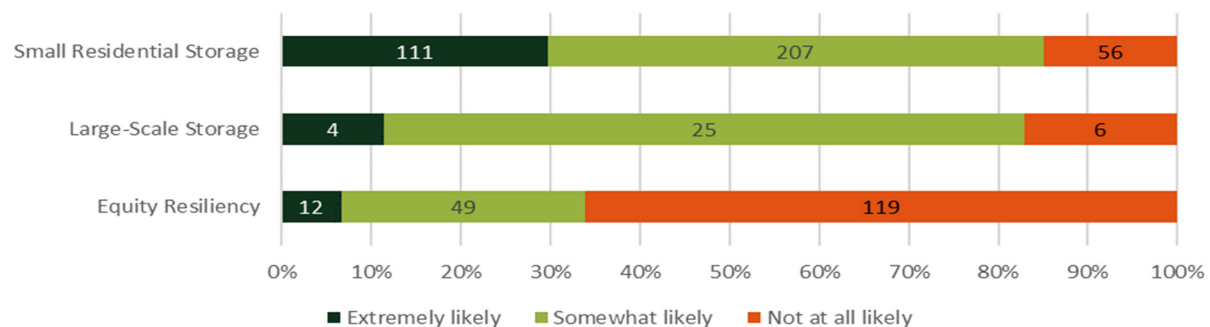
A couple of applicants described challenges related to their presentation of SGIP. According to one applicant, because the website indicates that there is money in every category *"The website makes it seem like the developer is lying to [the host customer]."* The website will indicate that there is funding available even when the category is not open (typically due to the Soft Target Caps). Host customers also aren't always able to understand why they won't qualify for specific budget categories. Another applicant mentioned that when their customers go to the SGIP website, they don't realize they need to focus their attention on the specific budget category they are eligible for to really understand whether there is funding available and what the incentives levels are. It is also confusing since it looks like there may be funding available when there is not (due to waitlists).

According to one applicant who markets directly to low- and moderate-income customers, *"it's not an SGIP conversation...the discussion is about interconnection."* Whatever they are doing for SGIP is also required for solar/interconnection. *"SGIP means nothing to customers."* The discussion is about the utility and how metering works. *"The customer has to do permitting through the city – the customer understands this. Then the customer finds out they have to work with the utility, and they are somewhat frustrated. SGIP is about the same as the interconnection, so it doesn't matter at that point. It's the same data: Everyone wants the same information but in a different format."*

5.1.4 What is the influence of the SGIP incentive on battery storage decision making?

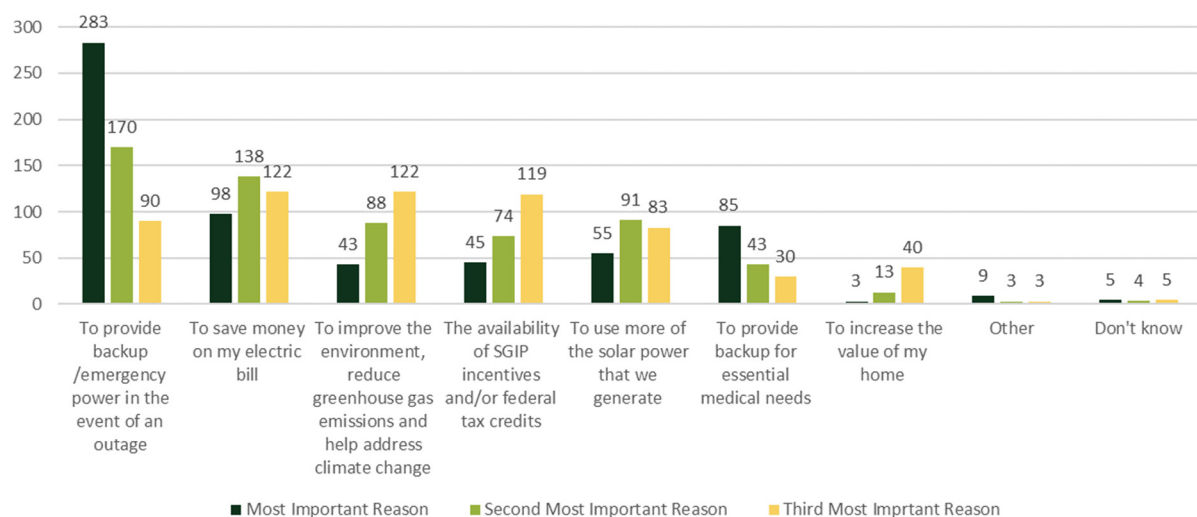
Many of the 2023 participating host customers stated that they were not influenced by the SGIP incentive, but this varied significantly by budget category. Fewer than 20% of participating host customers in the Small Residential Storage and Large-Scale Storage categories indicated that they would have installed the battery systems without participating in the SGIP (i.e., ‘not at all likely’ to have installed without the program). The program had a much larger influence on the Equity Resiliency category, where about two-thirds of respondents indicated that the program had a significant influence on their decision.

FIGURE 5-7: HOST CUSTOMER LIKELIHOOD OF INSTALLING BATTERY STORAGE WITHOUT THE SGIP INCENTIVE



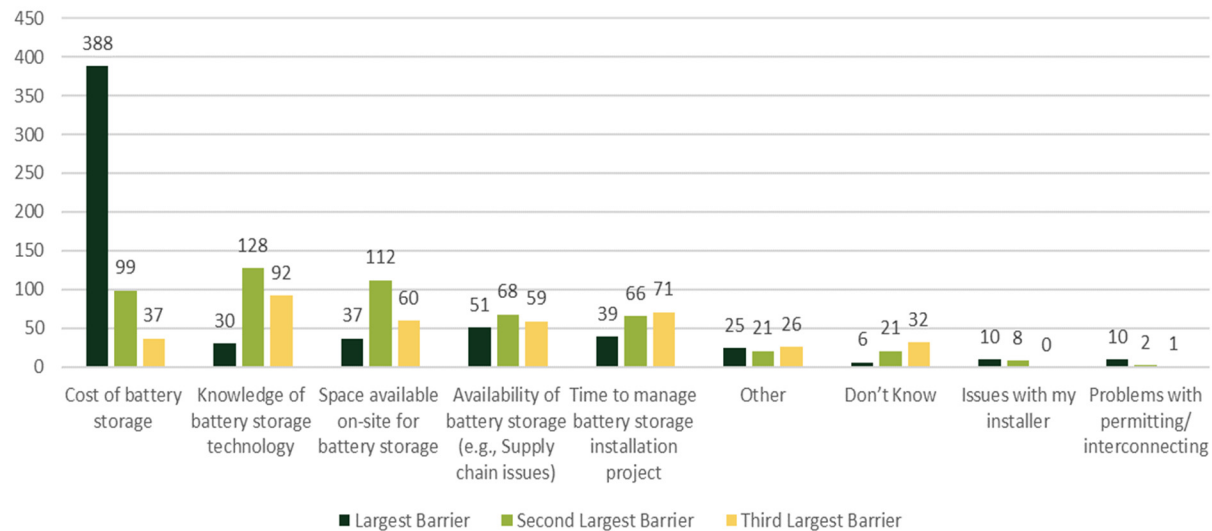
The most frequently mentioned reason for installing battery storage was “to provide backup/emergency power in the event of an outage.” As shown in the figure below, this reason was given three times more frequently than the second and third top reasons.

FIGURE 5-8: TOP 3 REASONS HOST CUSTOMERS INSTALL BATTERY STORAGE



Participating customers indicated the cost of battery storage was the large barrier they faced (Figure 5-9).

FIGURE 5-9: TOP 3 BARRIERS FOR HOST CUSTOMERS GETTING BATTERY STORAGE



Additional views regarding the importance of SGIP incentives from the applicant perspective are provided in Section 5.2.6.

5.1.5 Who are they interacting with and are the program requirements clear?

Host customers report they are primarily interacting with the applicant, not the PA, regarding their SGIP applications (90% of host customers reported primarily interacting with their applicant/developer or an installer versus 5% who primarily interacted with their PA.)³⁷ Because the applicant is usually the one completing the online application and submitting the required documentation (except in the case where the host customer is also the applicant), host customers are protected a bit from the SGIP application process; however, many of the requests and delays trickle down to the customers.

To gauge host customers perspectives on the clarity of the program (as presented to them from either their applicant or PA) they rated their clarity of various program aspects (documentation requirements, program timelines, application status, and the division of responsibility with their applicant). Table 5-1 shows the clarity ratings reported by host customers for the information provided by their applicant or their PA grouped by PA. Host customers' ratings around the clarity of program aspects were higher than other ratings, which may reflect the fact that they are partly protected since they primarily interact with

³⁷ Across all PAs, 41% of host customers reported having some interaction with their PA regarding their battery storage project (although for most it was not the primary party they interacted with). Host customers were far more likely to interact with SCE (48%) or PG&E (41%) than with SoCalGas (31%) or CSE (15%).

applicants. Host customer satisfaction with applicant communications (the primary interaction for most host customers) is generally shown in green across all PAs (indicating high average scores). For all program aspects, clarity was rated lower for information provided by the PA than it was for information provided by the applicant, except for CSE.³⁸ Note that a much smaller percentage of host customers reported interacting with CSE (15% compared to 50% for some of the other PAs). The clarity ratings provided for information provided by the PA in 2023 were generally lower than the clarity ratings reported during the 2021-2022 PA evaluation.³⁹ Clarity of program timelines was typically rated the lowest of the various program aspects.

TABLE 5-1: HOST CUSTOMER CLARITY WITH PROGRAM ASPECTS

	Program Aspect	Source of Information				Average PA Rating 2021-2022
		PA		Applicant		
		Rating	n	Rating	n	
PG&E	Documentation requirements	2.8	119	3.9	218	3.1
	Program timelines	2.6	117	3.6	220	2.8
	Application status	3.1	120	3.6	222	3.2
	Division of responsibility	3	117	3.8	219	3.1
SCE	Documentation requirements	3.1	77	3.9	151	3.3
	Program timelines	2.9	75	3.5	149	3
	Application status	3.4	79	3.7	148	3.3
	Division of responsibility	3.4	74	3.8	150	3.3
SoCalGas	Documentation requirements	3.5	32	3.7	96	3.7
	Program timelines	3.3	34	3.6	99	3.3
	Application status	3.7	35	3.6	99	3.6
	Division of responsibility	3.5	32	3.6	102	3.3
CSE	Documentation requirements	3.9	6	4	51	3.5
	Program timelines	4	8	3.9	52	3
	Application status	3.7	8	3.8	52	3.3
	Division of responsibility	3.4	8	3.9	52	3.4

The primary reasons for host customer dissatisfaction with PA communications were that they received insufficient information (38%), they did not know what to do upon receiving feedback from the PA (29%), or the written communications they received were unclear (28%), used confusing language (24%), or were

³⁸ Attention should be paid to the very small sample size of CSE host customers reporting on the clarity of program aspects as communicated to them by their PA as the majority of CSE host customers reported they did not interact with CSE regarding their battery storage application and thus were not asked the PA clarity questions.

³⁹ In the 2021-2022 evaluation host customers were only asked about the clarity of program aspects as communicated to them by their program administrator.

too infrequent (23%).

Both PAs and applicants mentioned that there is concern around communications with host customers – particularly when an application is waiting for approval or receiving corrections. According to applicants, a lot of the problems with the communication between the program and the host customers is confusion caused by the PA. Host customers often needlessly worry about losing the SGIP incentive, especially when they receive emails that mention application delays or suspensions. While the applicant may understand what is required, the host customer may lack the context needed to understand these emails to their applicant that they are copied on. Frustration with communications can grow if the applicant doesn't have the manpower to put significant resources towards corrections and the host customer feels that they need to reach out directly to the PA to get issues resolved.

5.1.6 What are the challenges from the customer perspective?

Roughly half of host customers (51%) recalled experiencing issues or delays with their SGIP application or battery storage project. From the customer perspective, the primary issues experienced were delays with either their SGIP application (45%), their system installation (41%), or interconnection (24%⁴⁰). An additional 6% of host customers reported having issues with their battery storage system and 1% reported their developer or installer went out of business. The issues or delays experienced were resolved or partially resolved for most customers (66% totally resolved, 15% partially resolved).


Another challenge host customers may face is the need to enroll in a new SGIP rate. According to applicants, host customers are concerned about the new rate being *“a lot higher,”* and telling the host customer to contact their utility to request a rate change is challenging. After all the requirements they had to meet to get a solar and/or storage system installed, this request is often met with frustration; *“You are telling me that I have to call PG&E myself now?”*

The majority of host customers reported being aware of the program requirement to enroll in an SGIP-approved rate (only 16% reported being unaware), most stating they learned about this requirement from their applicant (55%), their PA (22%), or through their own research (7%). Despite this high level of awareness of the need to go on an SGIP-approved rate, host customer reported understanding of the potential impact of this rate on their electric bill was moderate (3.5 on a 1-5 scale and 21% of host customers reported they had a poor or very poor level of understanding).

Applicants also mentioned that host customers are concerned about discharging their battery, especially

⁴⁰ Interconnection delays were most reported by SoCalGas and CSE host customers (36% and 35%, respectively), and less frequently by SCE and PG&E host customers (27% and 17%).

when they have medical needs.

 *The SGIP PAs should look to reduce the application burden placed on applicants and host customers by looking for areas where they can streamline the process and take on additional responsibilities (such as helping host customers switch to new SGIP-approved rates). Reducing host customer burden will be even more important as the program transitions to serve more Equity customers.*

5.1.7 Are customers satisfied with SGIP-incentivized battery storage equipment?

Host customers whose battery storage system has been installed report very high levels of satisfaction with their SGIP-incentivized battery (4.6 on a 1-5 scale, 71% rated it a 5 and only 1% rated it a 1). The few who were unsatisfied reported wanting more control over the battery's operation or its physical location and being unhappy as they did not achieve their expected financial savings. One customer complained that the battery drained too quickly.

Only half of host customers had used their battery to provide backup power during a power outage that lasted longer than an hour (54%). Those who had were very satisfied with the battery's performance during the outage (4.8 on a 1-5 scale, 83% rated it a 5).

5.1.8 Did they receive the SGIP incentive?

Roughly 40% of the host customers surveyed reported that the SGIP incentive for their project had been paid out at the time of the survey. Of those, most reported the SGIP incentive was paid to them (89%). Host customers who had not yet received the SGIP incentive were less likely to think it would be paid to them (75%) and more likely to think it would be paid to another party (17%).

Most host customers who had completed their SGIP project and received the SGIP incentive reported that both the final SGIP incentive and the final cost of the battery storage systems were similar to initial estimates (79% and 88%, respectively, of those who were aware of the final amounts). Only 14% of customers reported the SGIP incentive was less than the initial estimate (this rate was highest for SCE, 28%, and lowest for PG&E, 7%) and only 6% reported the final system cost was greater than the initial cost estimate.

5.2 APPLICANT LENS – THE APPLICANT JOURNEY

The journey that an applicant goes through as they participate in the SGIP is the focus of this section. This journey, however, only begins for applicants/developers that choose to participate in the program. One

research questions for this evaluation was “Is the program bringing in new project applicants/developers (particularly with the addition of the equity budget categories) and if so, what are the characteristics of these new entrants to the program?” We conducted an exploration of the SGIP tracking data from 2019 through 2023 and grouped applicants into three categories: Experienced (those who had submitted 100 or more SGIP applications in total over this five year period, 2019 – 2023), Non-Experienced (those who had submitted fewer than 100 applications during this period but were not Self-Applicants), and Self-Applicants (those who submitted an SGIP application on their own behalf).⁴¹

As shown in Table 5-2, over this five-year period more than 61,000 applications were submitted to the SGIP. Most of these applications (89%) were submitted by a small share of Experienced applicants (7%).

TABLE 5-2: 2019-2023 APPLICANT EXPERIENCE LEVEL VS. APPLICATIONS SUBMITTED AND PARTICIPATION

Applicant Experience Level	Applications Submitted		Applicants	
	#	%	#	%
Experienced	54,410	89%	73	7%
Non-Experienced	6,335	10%	679	66%
Self-Applicants ⁴²	351	1%	280	27%
Total	61,096	100%	1,032	100%

Comparing Experienced, Non-Experienced, and Self-Applicants we find significant differences (shown in Table 5-3 below). Whereas Experienced applicants tend to participate in the program year-after-year (97%), Non-Experienced and Self-Applicants are more likely to only participate in a single year (only 44% of Non-Experienced and 4% of Self-Applicants have participated in more than a single year). Similarly, Experienced applicants tend to participate in more than one budget category (90%) and with more than one PA (78%), whereas Non-Experienced and Self-Applicants are more likely to only participate in a single budget category (only 41% of Non-Experienced and 4% of Self-Applicants have participated in more than one budget category) and with a single PA (only 27% of Non-Experienced and 2% of Self-Applicants have participated with more than one PA). This illustrates that while the program may bring in new project applicants/developers from year to year, the majority of these do not stick with the program for more than a year. The complexity of the application process is also evident by the businesses that have been created to support project developers, contractors, or host customers submit SGIP applications as many of these parties are not able to handle the complexity on their own. Three of these businesses were interviewed as part of the applicant in-depth interviews completed for this evaluation.

⁴¹ This differs from the definition of “prolific” as prolific only looks at applications submitted during a single year and so excludes applicants who have significant experience with the program but over a number of years.

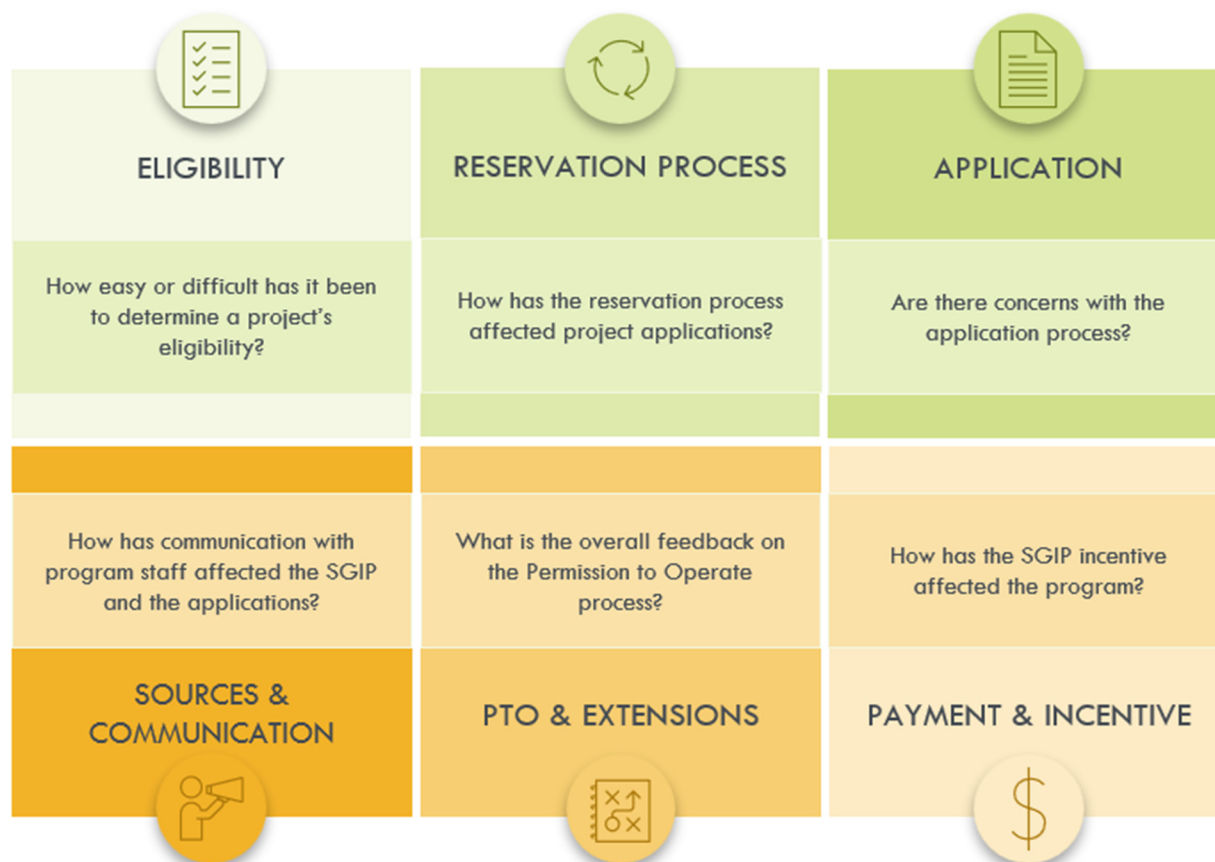
⁴² Self-Applicants were identified as those who list a name as the applicant company name instead of an actual company (e.g., ‘John Doe’).

TABLE 5-3: APPLICANT EXPERIENCE LEVEL VS. PARTICIPATION IN MULTIPLE PROGRAM YEARS (PY), BUDGET CATEGORIES (BC), AND PAS

Experience Level	2019 – 2023 Applicants	Participated in more than 1 PY		Participated in more than 1 BC		Participated with more than 1 PA	
	#	#	%	#	%	#	%
Experienced	73	71	97%	66	90%	57	78%
Non-Experienced	679	302	44%	278	41%	180	27%
Self-Applicants	280	11	4%	10	4%	5	2%
Total	1,032	384	37%	354	34%	242	23%

In the 2023 SGIP, we found 64 of the 366 applicants (17%) were Experienced, 214 were Non-Experienced (59%), and 88 were Self-Applicants (24%). Twenty-nine percent of these Non-Experienced applicants (63) were new to program in 2023 (versus only 2 of the Experienced). While it is encouraging that 63 new Non-Experienced applicants (and non-Self-Applicants) applied to the program in 2023, history tells us the likelihood of these new entrants to the program coming back for a second year is unlikely.

The visual below presents the Applicant Journey discussed in detail throughout the rest of this section.



5.2.1 Eligibility Challenges

Determining what budget category an application should be submitted to was a challenge reported by many applicants. The challenge of trying to determine the right eligibility category was also observable within the program tracking data. Roughly half of all applicants (47%) reported they had reached out to the SGIP PAs to ask questions or get clarifications on SGIP eligibility requirements. Of those who had asked questions on SGIP eligibility, 64% had questions about resiliency or general market eligibility and 43% had questions about equity eligibility.

Applicants reported moderate satisfaction with the clarity of eligibility requirements (3.2 on a 1-5 scale), however the level of satisfaction was significantly lower for PG&E applicants (2.7) versus the other PAs who all received ratings of 3.5 or higher (3.5 SCE, 3.8 SoCalGas, and 4.6 CSE⁴³). Applicant dissatisfaction was primarily a result of the eligibility requirements (as stated on the website(s) and in the handbook) were confusing, long, and not easy to decipher and that help was not available from the PAs for those who needed it. A few mentioned that with experience things became clearer, *“There is a learning curve to understanding the program eligibility ...that would require several projects to master”* but at least one applicant said having to gain experience through repeated application rejections and cancellations has hurt the image with customers and another reported *“several experienced firms were on the ‘office hours’ calls EVERY SINGLE week sorting out their eligibility.”* One applicant suggested creating a screening tool to determine program eligibility easier, *“I wish there was a tool that took you screen by screen and asked you questions in order to whittle[sic] down what budget a customer should be applying for.”*

During our applicant interviews we talked to several applicants who had one or more SGIP applications cancelled (or awaiting cancellation) as they faced confusion over which budget category to apply to. The confusion over budget category eligibility included:

- Participation pathway for small (<10kW) non-residential systems. One applicant spent considerable time trying to determine where in the SGIP handbook it states Small Residential Storage projects must be installed in residential locations. They had CALSSA⁴⁴ backing of their position but later had their project cancelled. We received conflicting reports from other applicants, some of whom claimed they successfully completed non-residential projects in the Small Residential budget category, and others who said such an application would most certainly be denied.
- Two projects being installed in the common areas of low-income multi-family properties were

⁴³ It should be noted that while the difference between PG&E and SoCalGas/CSE was significant, the applicant respondent sample size for SoCalGas and CSE were 5 and 6 respondents, respectively.

⁴⁴ The applicant stated *“the interchangeability [the] CPUC uses with Stakeholders in D.16-06-055 (pg. 25- 33) make abundantly clear that <10kW is named small-scale (aka residential) and opposite of Large-scale (>10kW) ONLY based on size and not Tariff.”*

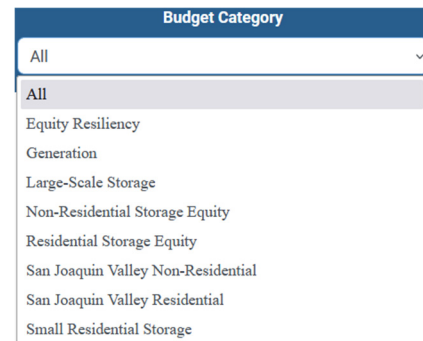
submitted to the Non-Residential Equity category. Two additional applications were later submitted to the Residential Equity category for the same projects and currently all four applications (for these two projects) remain open as the applicant is unable to cancel the first two submitted.

- One project (submitted by an applicant who was not a developer) submitted to the Generation budget category (for an Electric Fuel Cell) that upon further inspection of the tracking data was for an Enphase Energy battery storage system. This applicant, who at the time of the interview did not understand why the application had been suspended) reported extreme frustration that they were unable to speak with anyone about the project that had been submitted months earlier.


Based on our team’s review of the written documentation, it may not be clear to a customer whether they are applicable for a specific budget category. Note at the beginning of the online RRF states " Please ensure your project meets Host Customer eligibility requirements outlined in SGIP Handbook section 4.1.1.1 before applying to the Equity Budget. Any changes to the customer sector and/or budget category will require a new application." In our review, we could not locate Section 4.1.1.1. yet eligibility appears to be in section 3.2, which describes the eligibility criteria for each budget program individually. For some criteria, the applicant is directed to external websites. This approach overly complicates eligibility and has caused confusion for many potential applicants and customers.

To add to this confusion, there are eight budget categories in the online handbook dropdown (see screenshot to the right), but nowhere in the handbook is there a section on what would be eligible under Large Scale Storage. The SoCalGas website states; “Residential projects sites installing a system size greater than 10kW are eligible for the Large-Scale Storage Budget. Commercial projects not eligible for the Equity Resiliency Energy Storage Budget or Equity Energy Storage Budgets is eligible for the Large-Scale Energy Storage Budget”⁴⁵, however the team was unable to find these same details in the SGIP handbook.

FIGURE 5-10: BUDGET CATEGORY FROM HANDBOOK



 **Create an interactive decision tree pathway to direct host customers and/or applicants to the correct budget category where their project is eligible.**

 **Incorporating the current application checklist directly into the application process and including references to the program handbook requirements and direct links to application forms that must be submitted would simplify the process for applicants and decrease the volume of corrections requested by the PA.**

⁴⁵ <https://www.socalgas.com/for-your-business/power-generation/self-generation-incentive>

Equipment Eligibility

A number of applicants also expressed frustration regarding the process to get their battery storage equipment approved and deemed eligible for the program by their PA. As shown in Section 5.1.1, 84% of residential systems are either Tesla, Enphase Energy or SunPower systems and yet the documentation requirements for these systems are significant. Other frustration regarding equipment eligibility cited by applicants included:

- **Why if they install a battery storage system on the CEC qualified equipment list do they have to go through a separate qualification process for SGIP?** The CEC has a process to qualify equipment and some applicants reported frustration that some modules and batteries on CEC list were not eligible for the SGIP. The PAs should consider including information or an explanation on reasons why CEC qualified equipment does not equate to SGIP eligibility.
- **Why is there inconsistency across PAs regarding equipment approval?** One applicant reported working with one of the PAs through a long and arduous process to get approval for a specific battery system configuration. This applicant expressed being frustrated stating *“the other PAs understand the equipment configuration and would approve the system”*. The PAs should ensure they are in alignment regarding determining SGIP equipment eligibility.
- **Why is AESC system approval not enough?** A number of applicants reported they had worked closely with AESC to get a system approved and have manually entered it into the application only to have the PA rejected it and they had to go back to square one. *“It is a never-ending cycling since it is not in the system”*.
- **Why are separate approvals needed for configurations of the same equipment?** There can be endless configurations of the same equipment – *“why can’t there just be a blanket approval for all?”*

 **Review and simplify the process to confirm the eligibility of SGIP-approved equipment (most notably for smaller residential systems).**

5.2.2 The Reservation Process, Available Funding, and the Waitlist

Many of the applicants mentioned that they are challenged by the fact that the funding changes over time. Applicants mentioned that much of the 2023 funding was through project attrition, meaning that the funding is not guaranteed. Challenges related to available funding and the waitlist cited by applicants included:

- According to one applicant, the small residential storage applications are not waitlisted, rather they are rejected and thus they must resubmit it every day (through the lottery system) until it is accepted. According to this applicant, they had *“more than 30 projects that are being rejected and resubmitted nearly every day. So that’s hard.”* This applicant recommended creating a waitlist for the Small Residential Storage budget category to eliminate the need for applicants to resubmit applications.

- Notably, other applicants indicated that it's not worth the effort to submit an application to the lottery as there is significant additional work required upfront to try to get the incentive money through the lottery. One reported not telling customers about the SGIP incentives unless they know for certain the project or host customer will qualify. These applicants/installers don't see the point of submitting if they are not sure if funding is available for the project.
- The Soft Target Caps for the Small Residential Storage budget category can create confusion for applicants and host customers. Applicants and host customers who visit the SGIP website (selfgenca.com) may see the Small Residential Storage budget category is currently open but then are confused and frustrated when their application is rejected due to the additional resiliency eligibility criteria that applies to this budget category after the Soft Target Cap has been reached.
- One applicant reported that because funding was so limited in the Residential Storage budget category (and filled up with non-fire zone projects – i.e., Soft Target Cap), many projects would get rejected. PG&E, however, allowed applicants to resubmit applications for the projects that got PTO more than a year ago if the initial application was submitted within one year of PTO. This effectively extends the project eligibility period in the event that additional funding becomes available. They did note that PG&E is the only PA that will allow this.

Further findings regarding waitlisted applications are provided in Section 5.3 which provides results from the Host Customer Waitlisted web survey.

5.2.3 Application Process, Forms and Documentation

Almost all applicants felt that the application process is too complicated. There were some who called out specific forms, while others (e.g., prolific applicants) stated that there are no real issues with the forms but the approval process was *very difficult*. Some with experience made comments such as “*the process isn't hard, it's just lengthy*” but for those without experience, it was “*almost impossible*” to navigate on their own.

Some developers tried to get through the process but couldn't, so they have teamed up with companies that do the paperwork and apply on their behalf. In the list of applicants, there appear to be several of these – some of which were established for other rebate and incentive program offerings but also support those who want to submit applications through SGIP. These include: YourSolar Mate (180 applications in 2023), Solar Journey (76 applications), and SGIP Consultant Group (44 applications). While the exact pricing structure of how this work was not explored through this evaluation, one developer indicated that a standard residential application cost him \$400 while a more complicated equity application was around \$1,200 per application. There are also manufacturers, such as Enphase Energy (122 applications in 2023), who complete the application on behalf of developers who install Enphase Energy batteries.

In addition to those who had challenges in 2023, there were also several comments about **applicants who have given up on the program**, such as “*My installer has been working in CA for 20 years, and work for*

PG&E for 20 years ... he advises his clients to forget trying to complete the application ... in the last 10 years none of his clients have completed the process; they simply give up trying to check all of the "boxes" and paperwork required to be successful."

Based on survey data, among those who did apply in 2023, more than three-quarters of applicants (77%) reported reaching out to the SGIP PAs to get clarifications on SGIP's documentation requirements and the mean satisfaction rating provided for the clarity of documentation requirements was low, a 2.8 (on a 1-5 scale).⁴⁶

Reasons provided by applicants for their dissatisfaction with the clarity of the SGIP documentation requirements included redundant, unclear or nonintuitive documentation requirements. Based on the feedback, there is a need for improvements in both (1) the required documentation and (2) the process of reviewing, communicating, and approving the applications. Below we describe the challenges with the application process followed by specific challenges related to the documentation required.

Many of the challenges around the application process deal with inconsistencies across reviewers (and PAs) and the "corrections" process. Comments made by applicants also indicated that the program rules are being applied inconsistently across PAs, reviewers and projects.

⁴⁶ The variation in satisfaction across PAs was not as great as for the eligibility requirements, however PG&E and SCE applicants continued to provide the lowest ratings (2.5 and 2.7, respectively).

- Variability by reviewer and new uninformed reviewers led to difficulties.** According to applicants, not everyone has the same interpretation of what is needed and it is nearly impossible to talk to the same person. In addition, when there are new PA reviewers they go in an endless cycles issuing corrections when they shouldn't. CSE was specifically called out by several applicants for having reviewers that were not aware of the program process (and attributed it to them perhaps being new),⁴⁷ but this was also a general comment made about the program. According to some applicants, often the applicants must educate the new reviewers. The theme of “lots of inconsistencies across reviewers” was mentioned by applicants repeatedly in both the interviews and in comments within the survey.

“ You shouldn't keep hiring interns that have no experience with the program to try getting through the process ... until one of them actually makes it through. If you should click on the wrong summary and get that printed out and signed, you'll then need to go back and redo it and get the contractors to sign. The time that it takes to fill things out, then fill them out again once a minor issue is found, and get it signed by everyone is silly. The contractor is done with the install, they're not getting paid more to KEEP filling out paperwork and signing it. There is no recourse if the contractor isn't willing to volunteer their time, unless they go out of business. I'm an energy professional with advanced degrees and licenses. I've set up rebate/incentive programs. I've never seen anything this awful, even from small utilities, the energy commission, or ARB. Might make more sense to trash the whole thing and start over. ”

- The corrections process was referred to as lengthy, nit-picky, inconsistent and cryptic.** According to applicants, many of the corrections are too cryptic and sometimes not related to what the reviewer needed. Applicants often need to spend a lot of time to understand the correction and what they really need (and what the PA misunderstood) to “correct the correction.” Need better communication to improve this process “you submit an application, then 3 weeks later they tell you that you have a comma in the wrong place” so it was just too long and too hard to navigate - especially for smaller companies. Applicants suggested that rather than reviewers looking at the information piecemeal, they should review all of the information together and provide just one set of corrections.

⁴⁷ CSE indicated that they do not have new reviewers.

“It seemed to me that the SGIP reviewer would find an issue then send out a correction thus stoppoing he [sic] entire process. Once corrected and resubmitted, the SGIP reviewer would continue their review and find additional issues thus slowing down the whole process. This iteration took several corrections. If they had gone through the entire application and summarized the numerous issues THEN sent it back to me for correction, that would have been much more efficient and less time consuming and would've sped up the backlog.

“Several times my application would get rejected because of little dumb issues that seemed to be problems on their side and not with my project.”

There were a number of times I had a form rejected on one correction that was previously accepted on another [and] extremely unclear and not sensible restrictions placed on how e-signature or RRF forms were to be submitted that were not talked about in the handbook and seem arbitrary. For instance, being told I couldn't use Adobe fill and sign as opposed to DocuSign because there wasn't time and IP stamps (we filled the documents together) or being forced to print a web page on a correction for RRF because the SGIP representative didn't make it possible to print using the preferred interface, and then having my correction rejected because I didn't use the preferred format, which was not able to happen. All told, it took many months to get through the RRF corrections process, often at the fault of the SGIP rep. There was no continuity from one correction to another.”

There were also lots of challenges around the application forms including a general lack of clarity because of the naming of the documents and the complexity of the language used by the program. According to applicants, the names of the documents are unclear. The language is also unclear for many, “*they expected me to understand the inside lingo with SGIP.*” Based on the evaluation team’s review of the process, we also found the following issues.

- **Disorganized and inconsistent guidance on required documents.** Even though there is a checklist of requirements, it is unclear what information is needed. This may be in part because the written information states that certain documents are not required but reviewers ask for this documentation anyway. For example, load documentation, proof of authorization to connect and building permit inspection reports are not required by PG&E or SCE customers (according to Section 8 of the SGIP handbook) but respondents indicated that this information was asked for by the PA.
- **Duplicative requirements and “just too much documentation.”** The same information needs to be filled out multiple times, in different forms, at different stages. For example, the energy storage equipment details are requested as part of the RRF application and in the PMP and elsewhere. Or, for example, there are multiple monitoring plans (a preliminary, proposed, and final monitoring schematic), which potentially could just be one document that is updated, as needed. Similarly, there are lots of documents required at the Incentive Claim Phase (such as stamped plans, final building permits, etc.) According to one applicant, these documents are all required to process the interconnection application and so if a project received interconnection why do they need to submit all these documents again? Why isn’t show proof of PTO enough? (And relatedly why do they have to show PTO at all, can’t the PAs check that on their end?)
- **Inability to cleanly cancel a project (which leads to multiple records for same project).** If a project is cancelled, or wrong budget program is selected, or something else happens, and a customer needs to resubmit, they can't make edits to the existing application. They need to resubmit a whole new


project. In several cases, customers have reported answering questions for the wrong application, because they've had to create multiple new ones for the same project.

- **Multiple signatures required on lots of different forms.** Initially, host customer initials, and host customer, system owner, applicant, and developer signatures are required on the RRF printed application. However, the following list also provides additional places where signatures are required throughout the application process:
 - Signatures also needed on the following forms (RRF):
 - Well Pump Attestation
 - Authorization to receive customer information on a customer's behalf
 - Residential Storage Affidavit
 - Medical Baseline Affidavit
 - Small Business Affidavit
 - Multifamily LI Cover Sheet
 - Customer Resiliency Attestation
 - Signatures also needed on the following forms (PPM):
 - Renewable Fuel Affidavit
 - Waste Gas Affidavit
 - Directed Gas Supplier Attestation (both signed by host customer and by fuel provider)
 - Signatures also needed on the following forms (ICF):
 - Project Cost Affidavit


In addition, some of the PAs only accept certain signature platforms and those accepted do not allow for multiple signature requests to combined (requiring separate emails for each document to be signed, this was particularly challenging for a client with 132 applications.) Alternative options are available that could greatly simplify the process of collecting multiple signatures but are disallowed by some PAs. Another applicant mentioned that along with the signed documents you have to provide the signing history (which shows the IP address and timestamp associated with each signature). This can be very hard to track down from contractors who are unfamiliar with how to obtain this history and they have lost potential projects over this.

- **Burdensome data requests that require external knowledge about the region and the grid,** e.g., the customer must have Google Earth installed to verify if their project site is in the West LA Basin Local Reliability Area; customers must go to an external website to confirm if they are in DAC or Tribal Lands; customers are required to have information on high fire threat districts and the type of PSPS event (specifically, whether it was a de-energization or power outage from actual wildfire). While the SGIP handbook provides links where the applicant can type in an address or an electric meter and find out about the PSPS events in their area, the application itself just provides a link to a spreadsheet, highlighting which circuits have been de-energized, including start and end times, requiring the applicant to know which circuit a home would be on, which is not general knowledge.
- **Submitting documents for information that utilities should have access to** – Applicants mentioned frustration with having to provide utility billing statements or proof of being on a medical baseline, receiving PTO (which was issued by the PA), or being on an SGIP-Approved rate for applications submitted to the three PAs that are also the utility. It was unclear to applicants why the PA couldn't just access the information within their own organization. Moreover, applicants sometimes received the same corrections over and over and some of these are for areas that are not at the discretion of

the applicant (e.g., utility or meter ID, which sometimes changes during interconnection). Multiple applicants mentioned that sometimes, the PA has to change the meter ID, but then issues a correction notice; however, depending on the stage, the applicant can't always update this because the fields are locked applicants are unable to make changes. This sometimes also trickles down to the host customers, who get frustrated with the process.

 *The IOUs are good administrators for this type of program given the need for interconnection and coordination with DR programs, but there are many areas where they could further tap into the customer data they already have in house (proof of interconnection, being on an SGIP-approved rate, etc.) to reduce the burden on program applicants and streamline the program.*

- **Form names are not consistently labeled or referred to between the forms, the handbook, the web portal used to upload documentation, and the checklist.** The naming conventions of these forms differ throughout the application process, making it difficult to keep track of exactly what needs to be filled out, and how the documentation or form should be included in the application. Appendix D displays the differences between how forms are named and referred to throughout the different aspects of the application process. These differences make it difficult for an applicant to know exactly which forms need to be provided, and how to provide the form as part of the application.

 *At a minimum, each form or piece of documentation should have its own upload link. This will help both the applicant know if documentation is missing and the PA keep track of documentation that has been uploaded.*

There were also some specific forms mentioned by applicants that appeared to be irrelevant. This included **attestation forms for medical baselines** (which is already on the customer's utility bill), **attestation for well pumps** (which they already say they have in the application), the **preliminary monitoring plans** (which was needed during the lottery, but the information is available elsewhere), and a **tax form required for public entities**. The tax forms for Public Entity adds time and is not needed since public agencies would meet the requirements even without these forms.

Applicants mentioned that they felt that they had inadequate training to understand how to submit SGIP applications, and that the online training available to them (by video) is old and only explains a simple single scenario. Applicants desired help understanding the PA staff


There is also very little to no help in understanding why things get rejected or how to get them corrected. You call the number listed on the website or email looking for help, and no one will answer the phone or return a call. This is starting to feel like a scam or a system designed to ensure it will never pay out. Working with the company who installed my system and out of the few hundred they have now installed, 0 of them have had any success in getting [through] the SGIP eligibility process. They are working closely with me because so far I'm the only one who has made it this far. Not sure who runs this, but they should be ashamed and embarrassed at this process.

member vetting the application, but that there is little to no help understanding why things get rejected or how to get them corrected.

The Large-Scale Storage Process

The Large-Scale storage process (specifically the requirements for Green Button data and the PPM step) was mentioned by several applicants as being particularly challenging – so challenging that it’s not always worth applying. According to applicants, the Large-Scale approval process has changed over the years, and it is currently too much of a hassle to get the Green Button data, so they don’t apply unless they can get the Green Button data first. According to applicants, the handbook states that they only need to show one peak (one hour worth of data). However, in the past, PAs have had problems with gaming this, so the PAs have changed the processes - but not consistently. The PAs should work together to come up with a process they all agree on and will all consistently use to review this data so that applicants don’t feel that project approval is arbitrary and being handled on a case-by-case basis.

“ *it makes it confusing, like, how do I know how many times it has to basically pass the threshold to be considered valid. So, when the customer sends me the green button data, I analyze it, and I'm like, maybe you will be approved for four batteries. But we'll see what they say.* ” *tough to get host customers to log in [and the applicant] only wants to do the application if [they] know for sure that [they] can get the rebate* ”

 ***The PAs should work together to ensure they are aligned in their program requirements. Inconsistent adherence to program requirements makes the process for applicants working across multiple PAs much more difficult and it exasperates discrepancies in the program handbook.***

5.2.4 Sources of SGIP Information and Communications Methods

The program uses the SGIP and PA websites and the E-Handbook as the primary methods for describing program requirements. In 2023, applicants reported getting information about the SGIP from a variety of sources, notably through SGIP website updates (61%), the SGIP handbook (41%), email (39%), and application portal notifications (34%).⁴⁸ These sources of information on the SGIP were similar to the prior PA evaluation with exception an increased emphasis on the SGIP websites (up 15% from 2021/2022) and a decreased emphasis on the application portal (down 17% from last year). Below we provide feedback

⁴⁸ Applicants also reported receiving program updates from quarterly workshops (22%), webinars (22%), other organizations (17%), and mail notifications (15%).

on these two methods, followed by feedback on applicant interactions with PAs through other modes of communication.

Website and E-Handbook

SGIP Websites

The website operated by the SGIP program (www.selfgenCA.com, also known as the statewide portal) and the PA-specific websites are important resources for applicants to obtain program documentation and tools, upload applications, check application statuses, and learn about program updates. The statewide portal and PA websites are updated with new program information and/or materials when relevant program changes are made. Overall, the SGIP PA websites have not changed substantially although the PAs may have made small changes. SoCalGas, for example, updated their website in 2023 to ensure that all of the budget categories and qualifications were a bit clearer.

Surveyed applicants were asked to rate the usefulness of the SGIP statewide portal and the PAs' SGIP websites, using a 1 to 5 scale. Applicants provided low to moderate ratings of the PA websites with the lowest ratings being provided for PG&E and SCE websites (both 2.4 out of 5) and the highest ratings going to SoCalGas and CSE websites (3.0 and 3.5, respectively). The SGIP statewide portal received an average score of 3.2 on a 1-5 scale.

Those who had visited one or more of the SGIP websites were asked for recommendations on how the websites could be improved and suggestions were primarily focused on increasing clarity of the application process by providing checklists of submission requirements, examples or templates of complicated forms, and clean up to remove old or conflicting information.

“ *Redesign the websites with the assumption that the viewer doesn't come in with lots of knowledge about this or other rebate programs, and isn't a contractor. Make the YouTube videos a series that actually allows people who know nothing to complete the process.*

[add a] questions and answer section ... [with] common issues and pooled answers.

It would be helpful to have the current PSPS lookup tool on the selfgenca.com website and make the tool easier to find on the CSE SGIP program website. Right now, outdated PSPS information is on the selfgenca.com website.

clarify some of the technical terms

”

SGIP E-Handbook

Throughout 2022 the SGIP PAs worked to streamline the SGIP Handbook to improve the Handbook's readability and increase comprehension by clarifying policies and eligibility requirements. The Handbook streamlining was completed and submitted for CPUC review in late Q1 2023. In addition to the Handbook's streamlining, an effort was completed to transition the Handbook to an electronic format and in October of 2023, the E-Handbook was made public. Surveyed applicants were asked about their awareness of this new online E-Handbook and 67% of respondents reported they were aware of it and had used it, an additional 13% were aware of it but had not yet used it, and 21%⁴⁹ reported they were not aware of the new E-Handbook. Applicants who reported having used the new E-Handbook were asked to compare its usability to the old Handbook and most reported they had either not used it or didn't know (42%). Of those who had used it, 60% thought it easier to use than the old SGIP Handbook, 27% thought its ease of use was similar, and 14% thought it was more difficult to use. Recommendations from applicants on future improvements to the E-Handbook included expanding the definitions and glossary section and increasing clarity by focusing on shortening it (as written it is currently "extremely wordy" making it "confusing when trying to read it").



While the new E-Handbook appears to be a step in the right direction, a key piece missing is the ability to look solely at program requirements that are applicable to a specific PA, budget category, and/or equipment type. The E-Handbook currently limits Handbook sections that are entirely not applicable to a specific budget category, but still displays all of the information from the PDF version of the Handbook, even if certain sections or subsections are not applicable to the selected filters.

Active Communication with PAs

To gauge the effectiveness of PA communications, applicants were asked a series of questions on the frequency and content of their communications with the PAs. Applicants need additional methods of communication due to the large number of questions and requests. While the typical number of questions an applicant had for the PA ranged from applicant to applicant, between 20% and 40% of applicants (by PA) reported they typically had 10 or more questions.

Applicants who had questions for the PAs about their applications reported the questions primarily concerned the SGIP's documentation requirements (77%), technical requirements (73%), application process (66%), project timeline (50%) or eligibility requirements (47%). The proportion of applicants reporting having questions concerning program eligibility increased by two-thirds since the last evaluation (2021-2022).

⁴⁹ Percents sum to 101% due to rounding.

PA Response Times

Surveyed applicants were asked how long it took their PA(s) to initially respond to an inquiry (on average) and the longest it took to resolve an inquiry. Most applicants (84%) reported the time to an initial PA response in 2023 was 10 days or less (similar to the 2021/2022 PA evaluation), however SCE continued to struggle more than the other PAs to meet this 10-day goal with 29% of applicants reporting it took more than 10 days for an initial response. The longest amount of time applicants reported it took their PA(s) to resolve an issue significantly improved in 2023 with 78% percent of applicants reporting it never took longer than one month to resolve an issue (up from 60% in 2021/2022 and 36% in 2020). Despite these improvements, SCE and PG&E both had a significant share of applicants who reported it took over six months to resolve their issue (18% and 12%, respectively).

Office Hours

As shown previously in Table 2-1, PG&E and SCE are allocated 78% of the incentive funds and have historically had the largest numbers of SGIP applications submitted annually (in 2023 they made up 77% of the applications). To help make themselves more available, PG&E and SCE began holding weekly office hours in 2021 providing SGIP applicants a forum to ask questions directly. In 2023, 32% of PG&E and 43% of SCE applicants reported that they had attended office hours either with one or both PAs. Applicants who attended office hours reported they were generally satisfied with them, rating them a 3.9 on a scale from 1 to 5, with no respondents providing a rating below 3. One issue reported by SCE applicants and confirmed by evaluation team staff is that locating the dates and times of SCE office hours was difficult. The date, time and call-in numbers for PG&E office hours are posted on the selfgenca.com website but the evaluation team was unable to find information for the SCE hours on either the selfgenca.com website or the SGIP page of SCE's website.

Office hours are helpful for those who participated – these respondents generally found them very helpful, but still not enough (insufficient) for fully dealing with all the communication needs around applications and approval processes, according to those providing feedback through in-depth interviews.

Respondents also provided comments about the frequency and the timing of office hours, indicating that once a week is not enough or that office hours are not always at a time that fits with applicant schedules. A couple of applicants recommended that PAs offer office hours at least two different times (morning and afternoon) because their staff is on the East Coast or because they have a standing meeting at the same time as the current office hours.

Several CSE applicants we interviewed mentioned specifically a desire for CSE to offer office hours to make them more accessible. One respondent also indicated that they would prefer the more open forum of office hours to trying to get CSE on the phone every time.

Quarterly Workshops

Quarterly workshops are conducted by the SGIP PAs as a means of dispersing information about program rules and procedures, updates to incentive levels and budget categories, as well as any other topics needing to be addressed. Workshops can be attended in person or online and slides from past workshops can be found on the statewide portal. Surveyed applicants were asked about the frequency of their workshop attendance in 2023 and 55% reported having attended at least one quarterly workshop (up from 53% in 2021/2022). Applicants that attended at least one workshop reported moderate levels of satisfaction (2.9 on a 5-point scale, down from 3.4 in 2021/2022).

Applicants who didn't attend any workshops in 2023 were asked why and the most common reason was that they didn't know about them (58%) or that their schedule didn't allow it (21%). An additional 11% reported they didn't attend as they didn't think they were relevant to their role as an applicant.


Those who attended a workshop in 2023 were asked for recommendations on how the workshops could be improved and suggestions included better audio for the presenters, using less acronyms for those who are newer to the program or less familiar with the lingo, and posting agendas (with time slots) prior to the workshop and recordings afterwards.⁵⁰ Those who did not attend a workshop were asked what changes could be made to encourage them to attend and one respondent requested providing a better explanation on why applicants should attend (which could be interpreted as advertising them with the agenda and letting applicants know how they can benefit from attending).

General Feedback on Communications

There appears to be a need for improvements in PAs communication methods. Nearly all applicants interviewed for this study mentioned finding it difficult to communicate with the PAs. Many reported it was nearly impossible to talk directly to anyone from the PAs. The PAs all have SGIP phone numbers listed online but these numbers all go directly to voicemail and the voicemail messages recommend emailing the PAs for a faster response. Relying on email as the primary mode of communication has, according to applicants, resulted in frustrating and inefficient back and forth email threads (often with significant PA email response times) to resolve application issues. This inefficient communication method has both elongated and added significant burden to the application process. One applicant mentioned that if you call the PA phone number *"it always goes to straight to voicemail"*, and that they tried office hours but *"they sat in the waiting room and no one let them in"*. Another suggested that the PAs should add a monitored phone number or live chat function and that *"all national companies have this now"*.

⁵⁰ SGIP Workshop agendas are posted on the SGIP website (selfgenca.com) and sent to the R.20-05-012 service list prior to the Workshop and presentation slides are posted after the workshop. This suggestion indicates not all applicants are familiar with SGIP website.

“ I never felt that I had any kind of support from any administrator. I got vague emails [from] people that didn't seem to understand what their own handbook said. This is a program designed by people who are ignorant of survey design, user interface, industry terminology, and technical documentation, that is staffed by the unwilling in service of a captive audience of contractors. You shouldn't have to give your contractor 10% of the rebate to do the paperwork because it's virtually impossible to do it yourself but I'd recommend that 100% to anyone I know who is considering handling it themselves. There is complicated, over complicated and then there is the SGIP eligibility requirements. I've been working on this since 2020. Every time I try to submit the "required" documents, there is always something wrong, something new required or a new eligibility requirements... There is also very little to no help in understanding why things get rejected or how to get them corrected. You call the number listed on the website or email looking for help, and no one will answer the phone or return a call. Generally, delayed [and] unclear responses. ”

 **The PAs should increase their offerings of live customer service (i.e., chat functions, monitored phone lines, statewide office hours) to increase their level of accessibility for SGIP participants which will in turn improve the timeliness and helpfulness of their communications.**

5.2.5 Extensions and the Length of Time for the Project

There were also some comments from applicants related to the project timeline, and the need for extensions, particularly for non-residential projects.

According to the handbook, all projects are limited to a maximum of three six-month extensions of the reservation expiration date. The first extension is generally easy to get from the PA, but the second or third extension requires approval from all PAs, (i.e., “unanimous SGIP Working Group approval”). Some applicants commented on the timing of receiving an extension. Applicants mentioned that the second and third extension can sometimes take months to approve (even though they are only allowed to submit the application 30 days in advance⁵¹), which can lead to a cancellation.

At least one prolific applicant submits extension requests in bulk and, due to this timing, they often get a notice of application cancellation which requires them to follow up with the PA to remind the PA that they have already requested an extension. Unfortunately, according to the applicant, these application cancellation notices also go to homeowners who then freak out and send a million emails. This applicant suggestion that there should be an option to not auto send cancellation notice if extension has been requested.

Some applicants mentioned issues that would lead to extensions. In addition to COVID, for residential

⁵¹ Some PAs that will accept extensions 45-60 days in advance.

homeowners, it is sometimes difficult for the applicant to get the homeowner to get onto the new rate. One applicant indicated that their host customer mentioned being on hold for hours, but that the applicant has nothing to show for that (and the homeowner still wasn't on the correct rate) so they had to file for an extension.

For non-residential, they may need more extensions. Ideally, applicants would like a longer timeline or more flexibility/more extensions if you can show that your project is still underway. According to applicants, commercial projects take a long time, and the timeline seems really tight. Some applicants that have experienced this would recommend having a longer timeline or additional extensions (unlimited extensions if you can show it's a real project that you intend to build).



Conduct further research to examine historical non-residential project timelines to determine whether the current timelines or extension request process are adequate or are in need of expansion.

5.2.6 SGIP Incentive

Some applicants and developers report feeling that the SGIP can have a positive effect on the market, as the incentives can increase customers interested in storage. Additionally, one developer indicated specifically targeting states with incentives (the SGIP encourages them to work in California) – thus developers may not be serving the California market without the program. However, applicants also indicated that the influence of the program varies by budget category. One applicant who focuses on Small Residential projects stated, “[the customer is] basically getting it as a bonus, so it is not the main factor in their decision making.” However, for the Equity Resiliency projects, “most of our customers are very eager to participate in it. ... they want to do everything they can to ensure that they get this.” The applicant indicated that customers in the equity categories tend to move forward only if approved. Findings from the host customer survey confirm this. As mentioned previously, two-thirds of Equity Resiliency host customers stated that they would not have completed the storage project without the SGIP incentive compared to roughly 15% in the Small Residential Storage budget category.

5.3 CANCELLATIONS AND WAITLISTS

Looking at a snapshot of the SGIP database as of the end of March 2024, 11% of the applications submitted in 2023 had been cancelled and 6% had been waitlisted. As shown in Table 5-4, most cancellations occurred in the Small Residential Storage category (488 projects), but the Residential Storage Equity category had the largest share of projects cancelled (44%).⁵² The largest number of waitlisted projects occurred in the Small Residential Storage category (335 projects); however, the largest share of waitlisted

⁵² This does not include generation projects, where 3 of 4 projects were cancelled.

projects was in the Non-residential Storage Equity category (26% of all applications had been waitlisted).

TABLE 5-4: APPLICATIONS SUBMITTED IN 2023 BY APPLICATION STATUS AND BUDGET CATEGORY

Budget Category*	Active		Completed		Waitlist		Cancelled		Total
	#	%	#	%	#	%	#	%	#
Small Res Storage	2,284	41%	2,439	44%	335	6%	488	9%	5,546
Equity Resiliency	1,091	60%	449	25%	120	7%	168	9%	1,828
Large-Scale Storage	480	62%	127	16%	14	2%	159	20%	780
Residential Storage Equity	53	50%	6	6%	0	0%	47	44%	106
Non-Residential Storage Equity	25	58%	0	0%	11	26%	7	16%	43
San Joaquin Valley Pilot	22	88%	0	0%	0	0%	3	12%	25
Generation	1	25%	0	0%	0	0%	3	75%	4
Total	3,956	47%	3,021	36%	480	6%	875	11%	8,332

* The 2023 applications submitted to the SJV (25) and Generation (4) budget categories are not represented by the cancelled or waitlisted web surveys as no host customers in these categories responded to the cancelled survey and neither of these budget categories had waitlisted applications.

Looking at the status of applications submitted in 2023 by PA, we found that PG&E had the largest number and highest percentage of cancelled projects (407 projects, 13% of 2023 applications), while CSE had the fewest (49 projects, 5%). However, 51% of CSE projects were waitlisted⁵³ (469 projects) and thus have not truly begun the application process. Less than 10 projects were waitlisted across the other three PAs. SoCalGas had both the largest percentage of active and completed projects (54% and 40%, respectively).

TABLE 5-5: APPLICATIONS SUBMITTED IN 2023 BY APPLICATION STATUS AND PA

PA	Active		Completed		Waitlist		Cancelled		Total
	#	%	#	%	#	%	#	%	#
PG&E	1,595	49%	1,239	38%	9	0%	407	13%	3,250
SCE	1,654	52%	1,148	36%	2	0%	352	11%	3,156
SoCalGas	537	54%	395	40%	0	0%	67	7%	999
CSE	170	18%	239	26%	469	51%	49	5%	927
Total	3,956	47%	3,021	36%	480	6%	875	11%	8,332

The evaluation team also conducted an analysis looking at application status by the applicant's prolific status. As Table 5-6 below shows, the cancellation rate of Non-Prolific applicants is more than double that of Prolific applicants (18% vs. 7%).

⁵³ These projects are waitlisted because of a motion CSE submitted with the Commission to seek a ruling that would require SDG&E to fully fund the SGIP in its service territory.

TABLE 5-6: APPLICATIONS SUBMITTED IN 2023 BY APPLICATION STATUS AND PROLIFIC STATUS OF PA

Prolific Status	Active		Completed		Waitlist		Cancelled		Total
	#	%	#	%	#	%	#	%	#
Prolific	2,832	50%	2,090	37%	351	6%	408	7%	5,681
Non-Prolific	1,124	42%	931	35%	129	5%	467	18%	2,651
Total	3,956	47%	3,021	36%	480	6%	875	11%	8,332

The host customer survey received responses from 182 prospective SGIP host customers with cancelled projects, and 204 customers with waitlisted projects. Customers with cancelled applications were asked ‘What was the primary reason your SGIP application was cancelled?’, and ‘Do you still plan to install a battery storage system at your home?’ while customers with waitlisted projects were asked ‘Has the battery storage system been installed?’ and if not, ‘Is your understanding that the project will eventually come off the waitlist and receive the SGIP incentive?’

Cancellation Survey Analysis

The primary reason that a host customer reported their application was cancelled had to do with the project being ineligible (28%, an additional 9% were duplicate applications many of which had to be resubmitted since they were ineligible for the first budget category they were submitted to). The second most frequent response (23% of respondents) illustrated that host customers often do not know why their SGIP application was cancelled. Fifteen percent of respondents reported the application process was too burdensome or too long. Another nine percent of respondents indicated that they had issues with the installer or applicant, mostly regarding the lack of follow-through on processing the application. Three of these respondents also noted that their contractor went bankrupt, and they were unable to find someone else to finalize the paperwork. As Table 5-6 above shows, Non-Prolific applicant cancellation rates are higher than Prolific applicant cancellation rates. The evaluation team found that 60% of the respondents to the Cancellation Survey had a Non-Prolific applicant while most participating survey respondents worked with Prolific applicants (69%). This difference in applicant experience with the SGIP could be contributing to Cancellation Survey respondents reporting large percentages of project ineligibility as Non-Prolific applicants may not be as familiar with the program eligibility rules.

TABLE 5-7: CANCELLATIONS: WHAT WAS THE PRIMARY REASON YOUR SGIP APPLICATION WAS CANCELLED?

Response	Count of Responses	Percent of Responses
Project was deemed ineligible for an SGIP incentive	50	28%
Don't know	41	23%
SGIP Application process was too burdensome or took too long	24	14%
Issues with Installer/Applicant	15	9%
Duplicate application	14	8%
I am no longer interested in installing a battery storage system	8	5%
Other	7	4%
PAs did not provide sufficient support to process application	7	4%
Concerned with rate plan	3	2%
Could not afford it	3	2%
Installation Issues	2	1%
Issues with paperwork	2	1%

Notable responses are highlighted below. This customer feedback span many of the response topics in the table above, and highlight, in the customer's own words, some of the issues they faced while applying to the program.

“


PG&E put up roadblocks again and again. They couldn't find the connection to our house, we had to remove a deck above the main panel, etc. The costs got too high and interest rates doubled.

The developer who installed the system found the requirements for becoming Approved Developer too invasive (e.g., financial data) and refused to apply.

They require stamped plans from the city and the city of Santa Barbara does not stamp these plans anymore, so they cancelled my application

SGIP application process was too complicated, too long, and I ended up missing the deadline that I had no idea existed.

”

 **Improving tools to help applicants determine participant and technology eligibility (including ensuring projects are submitted to the correct budget category), streamlining the SGIP application to reduce application burden, and increasing PA support to assist applicants and host customers with the streamlined application can help to reduce future cancellations.**

Despite the SGIP issues respondents faced, when asked about whether the respondent was still planning on installing a battery storage system the vast majority (62%) reported that they had already installed a

storage system without the SGIP incentive. An additional four percent indicated they plan to install one without the SGIP incentive, three percent had the system installed and were under the impression that they would still receive an incentive, and one percent reported they were still waiting on the incentive. Seven percent of respondents are still considering whether to install a battery storage system, but out of these, most of them will only do so if they are able to receive an incentive. The responses are found below in Table 5-8.

TABLE 5-8: CANCELLATIONS: DO YOU STILL PLAN TO INSTALL A BATTERY STORAGE SYSTEM AT YOUR HOME?

Response	Count of Responses	Percent of Responses
Yes – I have installed a battery storage system without an incentive	93	62%
Don't know	14	9%
No - I am no longer interested in installing a battery storage system	10	7%
Considering, only with incentive	7	5%
Duplicate Application	6	4%
Yes – I plan to install a battery storage system without an incentive	6	4%
Already installed - thought I'd receive an incentive.	5	3%
Considering	3	2%
Other	3	2%
Already installed - waiting for incentive	2	1%

In total, 69% of respondents with cancelled applications had installed a battery storage system. Of these respondents, 31 (22% of all respondents) indicated that their project was deemed to be ineligible for an SGIP incentive. Ten respondents (7%) indicated that the SGIP application process was too burdensome, eight respondents (5%) noted the SGIP application process took too long, and six respondents (4%) noted that the PAs did not provide sufficient support to process the application.

Waitlisted Survey Analysis

The survey results from respondents with waitlisted applications are summarized in the following two tables. Of the 204 respondents, 85% of respondents noted that their battery storage system had already been installed (or was partially installed), and another 2% said it would be installed soon. There were 23 respondents (11%) which indicated that their project would not be installed unless it got off the waitlist, indicating a need for the incentive to move forward with the battery storage project.

TABLE 5-9: WAITLIST: HAS THE BATTERY STORAGE SYSTEM BEEN INSTALLED?

Response	Count of Responses	Percent of Responses
It is fully installed and operational	168	82%
It has not been installed and will not be installed unless the project gets off the waitlist	23	11%
It has not yet been installed but will be installed soon	4	2%
It is fully installed but is not yet operational	4	2%
It is partially installed	2	1%
Don't know	2	1%

Respondents were also asked whether they believed they would be receiving an incentive. The majority of respondents (57%) did believe they would be receiving an incentive in the future, while only 25 percent realized it was not certain if they would receive one or not. One respondent noted they were not even aware of an incentive, and another didn't realize they were on the waitlist. The range of responses indicate a potential disconnect between the host customer expectations and the reality of the program.

TABLE 5-10: WAITLIST: IS YOUR UNDERSTANDING THAT THE PROJECT WILL EVENTUALLY COME OFF THE WAITLIST AND RECEIVE THE SGIP INCENTIVE?

Response	Count of Responses	Percent of Responses
It is our understanding that the incentive will be paid in the future	96	57%
It is our hope that the incentive is paid in the future, but we know it is not certain	41	25%
Don't know	17	10%
We are doubtful that it will receive an incentive	10	6%
Did not know about an incentive	1	1%
I did not know it was on the waitlist.	1	1%
Other	1	1%

6 OVERARCHING PROCESS ASSESSMENT

The process evaluation also examined the SGIP from an overarching perspective, namely, what are the biggest hurdles to running an efficient program? Section 5 examined the program from a participant's lens (both host customers and applicants) and presented numerous areas where the program was inefficient (i.e., burdensome, slow, and/or confusing). In this section we present hurdles the program faces from a regulatory perspective as well as challenges that are specific to the equity budget categories.

6.1 REGULATORY PROCESS

The SGIP's long history is both a blessing and a curse. Its longevity increases awareness of the program amongst developers and contractors; however, the program has gone through significant changes during its 23 years in existence and it can be held captive by its history and the significant regulatory process that surrounds it.

Table 6-1 illustrates the major technology and/or market changes that have occurred throughout the history of the program such as when the program expanded to include battery storage, the residential sector, and the equity segments. The SGIP was originally conceived as a program to provide incentives for installing large generation technologies (with an average capacity of 629 kW and incentives of nearly \$800,000) and large solar PV systems (with an average capacity of 157 kW and incentives of more than \$500,000). Combined, those projects only account for 3% of all SGIP projects since the program's inception. Annual volumes of applications significantly increased for the first time in 2017 with the introduction of the Small Residential Storage budget category. This budget category now accounts for 62% of the total applications submitted to the program and the average size (in rated kW) of one of these Small Residential Storage projects was 1% of the size of an average generation project (the average Small Residential Storage incentive was 0.4% of a generation project incentive). The program significantly expanded again in 2020 when the Equity Resiliency budget category was introduced. The residential sector of this category now accounts for 21% of total program applications, and while these projects are nearly twice the size of an average Small Residential Storage project (due to the need for additional capacity for the purpose of resiliency) and receive incentives that are nearly 10 times larger, they remain just a fraction of the size (both in kW and incentive dollars) of generation projects. Looking at the program in its entirety (all years and all budget categories), 71% of projects fall into categories where the average incentive is less than \$10,000 and an additional 22% are in categories where the average incentive is between \$10,000 and \$30,000. Looking solely at the 2023 applications, we found that only 395 applications or 5% of the 7,457 non-cancelled applications had incentives that exceeded \$30,000 and the average incentive for projects in the Small Residential Storage budget category (68% of the non-cancelled projects in 2023) was just over \$2,000.

TABLE 6-1: SGIP MARKET FOCUS TIMELINE, INCLUDING MARKET SIZE (PROJECTS, CAPACITY, AND INCENTIVES) *

SGIP Market Focus or Budget Category	Years	Total Projects	Total Projects (%)	Average Project Capacity (kW)**	Average Project Incentive (\$)***
Generation	2001 - 2023	991	2%	629 kW	\$795,500
Photovoltaic	2001 - 2006	920	1%	157 kW	\$520,000
Standalone Storage - NonRes	2011 - 2016	618	1%	179 kW	\$287,000
Standalone Storage - Res	2011 - 2016	3,011	5%	6 kW	\$3,700
Small Residential Storage	2017 – 2023	38,291	62%	6.2 kW	\$3,100
Large-Scale Storage - NonRes	2017 – 2023	1,360	2%	330 kW	\$395,000
Large-Scale Storage - Res	2017 – 2023	2,581	4%	15.5 kW	\$9,800
Equity Resiliency - Res	2020 - 2023	13,016	21%	11 kW	\$28,000
Equity Resiliency - NonRes	2020 - 2023	391	1%	272 kW	\$918,000
Res Storage Equity - SF	2020 - 2023	192	0.3%	9.1 kW	\$19,700
Res Storage Equity - MF	2020 - 2023	59	0.1%	95 kW	\$229,000
Non-Res Storage Equity	2020 - 2023	231	0.4%	467 kW	\$867,000
SJV Residential	2020 - 2023	207	0.3%	10 kW	\$26,400

* This table excludes projects that have been cancelled.

** Based on the Rated Capacity [kW] in the tracking database. This variable was also used for storage projects for ease of comparison with generation projects.

*** Based on the Current Incentive variable in the tracking database.

What this all implies is that the current SGIP application process is likely out of scale with the current program. It has processes in place and requests documentation that are overly burdensome to most applicants and host customers and are likely out of alignment with the current program's projects and applications. An example of this is the length of the SGIP Handbook, the 2023 version of the Handbook (v3) was 139 pages long. And while the E-Handbook initiative aimed to make the handbook more accessible to applicants and it still extremely long and does not provide applicants the functionality to review only the sections applicable to the budget category they are applying to. The scale of the application process was designed for projects that received incentives in the hundreds of thousands of dollars, while in 2023 the median SGIP project incentive was just over \$2,500.


The complexity of the application process is also evident by the businesses that have been created (or that have lines of business) to support project developers, contractors, or host customers submit incentive applications as many of these parties are not able to handle the complexity on their own.⁵⁴ Some of these “applicant only” companies have been conducting this work for the SGIP since 2021.

The PAs also expressed that the regulatory process as it is currently outdated and needs to change.

⁵⁴ <https://www.canarymedia.com/articles/electrification/these-startups-help-busy-contractors-get-electrification-rebates-faster>

According to the PAs, the process for making changes to the program isn't currently effective. An example of this was PAs desire to bring CBOs into the program to help with outreach efforts to the equity budget categories. The PAs filed an Advice Letter to make this change, however while they were waiting for the CPUC to respond to the Advice Letter the budget categories ran out of money and thus the CBOs were never brought into the program. This is an example of inefficient and wasted efforts resulting from the program's inability to be nimble and adjust quickly to the needs of the program.

All the PAs mentioned that the greatest challenge to updating the program is SGIP's long regulatory and legislative history. According to several PAs, making improvements to the program requires a lengthy process through a Petition for Modification (PFM).. One PA mentioned that while they have been discussing changes with the CPUC in working group meetings, and that has led to some changes, there is a need for more streamlining because they recognize that the application process is too complicated. While they want to make changes, PAs expressed that "there needs to be a way to address changes in a more efficient manner." The PAs are currently proposing Tier 2 Advice Letters to get changes approved, but even that process means some inefficiencies. PAs also indicated that the 23 years of regulatory history that need to be considered every time the program wants to make a change is the biggest obstacle to streamlining the program. "Any time you need to make a change, need to go back 23 years to see whether it was in a Decision that required the current process." While SCG created a very thorough workbook summarizing the SGIP-related legislative background in 2023 to try to deal with this,⁵⁵ sifting through the myriad of SGIP history is still quite challenging.

 ***The CPUC should consider what latitude can be granted to the PAs to significantly simplify and streamline the SGIP. Currently the process for PAs to make changes or improvements to the SGIP is a lengthy endeavor, typically requiring a Petition for Modification (PFM). The PAs recognize the need to reduce what is a complicated and burdensome application process and see the 23 years of regulatory history as one of the biggest obstacles to program streamlining.***

6.2 EQUITY LENS

The Commission has a goal of ensuring that low-income customers in disadvantaged or low-income communities have access to energy storage resources incentivized through the SGIP.⁵⁶ The current SGIP has two existing budget categories targeted in whole or in part to low-income residential customers: Equity Resiliency⁵⁷ and Residential Storage Equity, which was renamed the Residential Solar and Storage

⁵⁵ https://www.selfgenca.com/documents/handbook/legislation_background

⁵⁶ D.17-10-004 at Finding of Fact (FOF) 1 and 2; D.19-09-027 at 5.

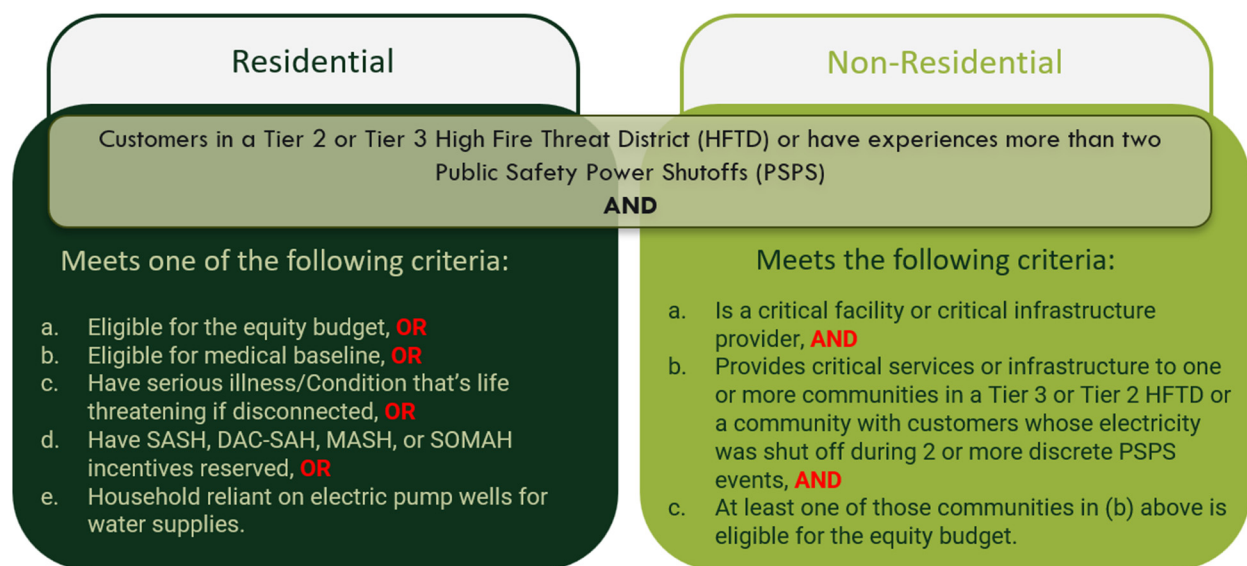
⁵⁷ 97% of 2023 applications to the Equity Resiliency budget category were from residential customers.

Equity budget category in 2024. The history of these programs is briefly described below.

In 2017, through D.17-10-004, the Commission established the SGIP **Residential Storage Equity** budget category. Residential Storage Equity targets single-family and multi-family low-income housing, regardless of project size.

In 2019, the **Equity Resiliency** budget category (ERB) was created by D.19-09-027 to provide incentives to customers with critical resiliency needs, meeting the following criteria listed in the figure below:

FIGURE 6-1: EQUITY RESILIENCY BUDGET CATEGORY REQUIREMENTS



Verdant's impact evaluation through 2020 showed that only one percent of the incentives under the ERB was received by customers qualifying via the low-income eligibility pathway (criteria a), with the vast majority of incentives going to customers qualifying via the medical baseline program (criteria b) or relying on an electric well pump for access to incentives (criteria e, electric well pump program eligibility was later amended to be restricted to low income).⁵⁸ As such, very little went to the intended target.

The Residential Storage Equity budget category, which is targeted only to low-income, has been significantly underused through 2023. There has been a total of 26 single-family and two (2) multi-family Residential Storage Equity projects completed since 2020 – spread roughly evenly across the four years.⁵⁹

⁵⁸ Verdant Assoc., 2020 SGIP Energy Storage Impact Evaluation, <https://www.cpuc.ca.gov/-/media/cpuc-website/divisions/energy-division/documents/self-generation-incentive-program/sgip-2020-energy-storage-impact-evaluation.pdf>

⁵⁹ Six (6) in 2020, 7 in 2021, 8 in 2022 and 7 in 2023. Selfgen.ca.gov also lists 1 in 2018.

Among the single-family projects, 13 were in SCE territory, 9 in PG&E territory, 4 in SoCalGas territory. No single-family residential storage equity projects have been completed in SDG&E territory (under CSE). In total, the residential incentives for these projects total approximately \$385,000. The two (2) multi-family projects were in SDG&E territory under CSE – both 2020 projects – for a total of just over \$206,000.

The single-family projects were completed by just nine developers, some of whom did not submit applications in 2023), ordered below by the number of completed projects in this budget category:

- Swell Services (6 projects – 1 in 2022 and 5 in 2023)
- V3 Electric (5 projects – 4 in 2020 and 1 in 2023)
- ElectrIQ Power (4 projects in 2021 and 2022 – also applications in 2023)
- Freedom Forever (3 projects in 2021, 1 project in 2022)
- SolarMax Renewables (2 projects in 2021)
- Semper Solaris (1 project 2022)
- Bland A/C & Heat (1 projects in 2022)
- Option One Corp (1 project in 2022)
- Tesla Inc. (1 project in 2021)

To better support reaching low-income customers in the future, the recent AB 209 Decision (D. 24-03-071) allocated \$280 million from the Greenhouse Gas Reduction Fund to the Residential Solar and Storage Equity budget. The recent decision also increases the incentives per kW for this category, removes some eligibility restrictions (e.g., deed restriction) and allows for customers to demonstrate eligibility by providing documentation that they have been income verified as a result of participation in CARE, FERA or ESA (among other programs listed). It also directs the PAs to submit a proposal (through a Tier 2 AL) that would provide developers an upfront payment of 50% of the incentive allowing them to access program funds earlier in the application process.

According to the PAs, marketing to low-income is a challenge that does not yet have a solution. This is supported by the data above as well as by feedback from applicants. Survey and interview data with applicants indicate that many applicants do not market to equity customers – only four responding applicants indicated that they market to Residential Equity Budget category customers, which is somewhat consistent with the fact that very few applicants have completed projects in this category. When asked if they plan to market this category in the future, those who are currently marketing stated that they would likely continue; however, most do not plan to market to residential equity customers in

the future.⁶⁰ For some it seems like “too much trouble” or “Because the rebate and subsequent qualification/eligibility is too complicated. Couple that with the new mandate of transferring to NBT and enrolling in Demand Response Programs it isn’t worth the rebate.” Thus, while the new decision has added funds and removed some eligibility barriers, it is still unclear whether low-income customers will be targeted by developers or whether they have the time, knowledge and resources to participate given the challenges discussed in earlier chapters.

According to some PAs and applicants, there may be a need to partner with non-IOU entities like CCAs, municipalities, or POUs to reach these populations. We spoke with two developers that have been successful at completing projects with equity customers. Both applicants have business models that are oriented to equity targeted customers because they work directly with local governments, cities, and school districts. Below we describe one that has successfully targeted low-income residential customers.

RESIDENTIAL ORIENTED CASE STUDY

One developer with four completed Residential Equity Storage projects (and many more applications in 2023) is a developer who works directly with local governments to identify and fund projects. According to the developer, local governments have climate goals and as such, want their community members to pursue these projects and thus make a good partner in reaching this audience. The developer uses a finance company to get the funding for the projects and has an agreement with the local government (or city) to guarantee the loan or power purchase agreement (PPA). As such this model of working with a local government allows them to hit demographics that can’t usually qualify. For example, for the city of Santa Barbara, the developer and city established a PPA that only requires a soft credit check to make sure the customer owns the home (no formal credit check). Within the revenue share – part goes into a reserve to guarantee the PPA in case customers don’t repay. This allows them to market to people who would not really qualify. In this case, “SGIP helps subsidize the cost.” The program is branded with the city – Power Up Santa Barbara - and the developer generally does their own analysis to determine how to market and largely markets through direct mail.



Unlike market rate customers, equity customers may be less likely to pursue solar/storage projects on their own. Leveraging community based organizations (CBOs) or local governments with climate and equity goals to increase SGIP awareness and market further in the equity segments may help to increase participation in the equity sector.

While not a focus of our research efforts, the research team also sought to explore if the equity budget categories are “bring[ing] positive economic and workforce development opportunities to disadvantaged communities”. Note that the small number of projects in these communities, and the limited number of developers and applicants targeted to these sectors, indicates that the economic and workforce development opportunities have not been extensive. Moreover, one respondent described the context for today’s solar workforce. According to this applicant, the policy changes around the NEM3 rates (for

⁶⁰ Note that respondents were generally unfamiliar with the details of the recent CPUC decision when they were answering this.



the solar industry) has led to reductions in the compensation that customers receive. Solar workers were laid off because solar installations went down as a result of the policy change, and many solar companies went out of business. According to the respondent, most companies are working with a skeleton crew. The companies that are surviving are the larger ones with workers in other states. This applicant felt that going forward, SGIP incentives for batteries would be really important for driving more projects.

APPENDIX A INTERVIEW GUIDES

This appendix provides the survey instruments which were used to capture the findings from the PA and Applicant in-depth interviews and the Applicant and Host Customer web surveys.

A.1 IN-DEPTH INTERVIEWS

A.1.1 PA In-Depth Interview Guide

Introduction

The purpose of this interview is to gather information about your experience administering the SGIP during 2023, learn about recent program changes that may influence our study, and hear from you about challenges and process improvements.

1. For each person participating in the interview: What is your title and role? How long have you been on the SGIP team for [PA]?

Follow-up on Prior Recommendations

[The Verdant team will look at the changes in application processing times prior to this interview so that we can explore specific areas]

1. The prior evaluation recommended [see paragraph below]. In 2023, did you make any changes to improve **clarity and timeliness**? What changes did you make? Have you made any changes affecting application processes or the average time for payment processing once the applicant has submitted all required paperwork?

“... improve clarity of responses to facilitate rapid resolution of application issues, continue to track response timelines, and proactively reach out to applicants who have issues that are not resolved within one month. “
2. The prior evaluation recommended [see paragraph below]. In 2023, did you make any changes to improve **accessibility**? What changes did you make? Did your SGIP FTE staffing change in 2023?

“...increase participant awareness of the opportunities to engage directly with PAs, such as quarterly workshops and office hours. Availability of these PA resources could be highlighted on PA websites which are frequently visited by applicants and host customers. “
3. The prior evaluation recommended [see paragraph below]. In 2023, did you make any changes to improve **“helpfulness”**? What changes did you make?

“... **CSE and SCG should consider hosting office hours**. While these PAs generally have a lower application volume than the other PAs, applicants reported often attending workshops to ask the PAs specific questions about their applications. Additionally, applicants were generally

more satisfied with office hours than SGIP workshops and several applicants noted the SGIP is a difficult program to navigate without specific program expertise. Reduced frequency of office hours may be appropriate for CSE and SCG, however providing office hours near step openings would increase PA accessibility.”

“SGIP PA websites should continue to be regularly updated with materials related to the application submission process, recent program changes, and quarterly workshop recordings. A higher share of applicants reported visiting PA websites than in prior years and often visited them looking for SGIP assistance and resources. Almost half of applicants reported learning about SGIP program changes through the PA websites.”

“Enhance clarity and consistency in communications with participants regarding their applications. Again in 2021/2022, applicants and host customers reported confusion with information received from their PA, especially true for new SGIP applicants. Several applicants noted the SGIP is an extremely time-consuming process and there was a lack of clarity regarding reviving suspended applications PAs that hold office hours should notify applicants with suspended projects or rejected paperwork about the availability of office hours.”

“Continue to reinforce to applicants the importance of effective communication with host customers about the SGIP application process and available resources. Applicants are often host customers’ primary point of contact during the application process. While host customers’ satisfaction with applicant communications were generally good (from 3.4 to 3.6 depending on PA), host customers frequently reported having challenges with applicant communications. Challenges include insufficient information from applicants and the role of the SGIP in their project’s development was not adequately explained.”

Key Program Changes and Key Concerns

1. What other changes were made in 2023, if any?
2. What changes are planned for 2024 and beyond? [Probe into both statewide and PA-specific changes]
3. Why have past cancellations been so high? How can cancellations be prevented in the future?

Overall and By Budget Category

We would like to get your feedback about the program overall and by budget category.

1. What do you see as the biggest hurdles to running an efficient program? What program processes need to be changed or streamlined? In your opinion, are there any regulatory hurdles that need to be changed to improve program operations?
2. **[By budget category – non-equity first]** What are the biggest challenges for this budget category? What can be done to improve this element of the program?
3. **[By budget category – equity second]** What are the biggest challenges for this budget category? What can be done to improve this element of the program?

- a. With the new funding, do you anticipate an increase in the number of applications? What are your operational plans for dealing with a potential increase in applications (based on your prior experience with ERB)?
- b. Are you aware of any barriers related to getting applications from equity and income qualified applications?
- c. How did ME&O vary between equity and non-equity segments? In your view, what should the role of SGIP PAs be in providing education and outreach for equity and resiliency segments of the population? Can you provide a bit of background on your past interactions with CBOs (regarding ME&O for SGIP) and any plans for working with CBOs in the future?

Final Questions

1. Are there any other program aspects, events, or changes in 2023, that we haven't already covered, that you think could have an affect applicant's or host customers perception on [PA]'s timeliness, accessibility, and helpfulness?
2. Are there any process related questions you would like to see explored in this evaluation?

A.1.2 Applicant In-Depth Interview Guide

Introduction

The purpose of this interview is to gather information about your experience participating in the SGIP during 2023 and to learn about barriers to participation faced by you and/or your customers and areas where you think the program can be improved and/or streamlined.

1. For each person participating in the interview: What is your title and role with respect to SGIP participation? How long have you been in this role and participating in the SGIP?
 - a. Our records show that your company has [INSERT PROJECT NUMBERS] in [INSERT BUDGET CATEGORIES], what role have you played with these projects.
 - b. [IF APPLICANT AND DEVELOPER ARE SEPARATE ENTITIES] Our records show that your organization served as only the [applicant/developer] for SGIP projects in 2023. Can you explain how your organization worked with the project [developer/applicant] for SGIP projects in 2023. What project roles did your organization play and what roles did they play (including project marketing and outreach)?
2. What challenges have you encountered with the program? What has been the biggest challenge? How has your experience varied by budget category (if they have experience with more than one)?
3. Have any of the SGIP application forms been particularly burdensome? [Probe on CRA (customer resiliency attestation), AHJ (authorities having jurisdiction), PMP (proposed monitoring plan)]

4. What participation concerns or hesitations do you see from the host customers' perspective? Does this vary by budget category or PA?
5. What type of marketing does your organization do for the SGIP? What marketing channels and messaging are most effective? Does your organization's ME&O differ for equity vs. non-equity budget categories? How can participation in the equity categories be increased?
6. [IF 2023 CANCELLED PROJECTS] Our records show your company had [X] projects cancelled in 2023. Why were these projects cancelled? Did reasons for cancellations vary by budget category, manufacturer, size of system, geography)? At what point in the application process were they cancelled? What additional support would have allowed you to either screen these projects out earlier or provide more support to get these projects completed?
7. Do you currently have projects that are waitlisted? How many and in what budget categories? What percentage of your waitlisted projects are likely to proceed absent the SGIP incentive?
8. For the questions below respondent can give an answer for each PA they worked with. Create response line items for each PA.

T4. On a scale of 1 to 5, where 1 is not satisfied and 5 is extremely satisfied, how satisfied are you with the timeliness of the SGIP PA(s) communications in 2023? (1-5, N/A, DK)

[IF T4< 3] T4a. Why were you unsatisfied with <PA>'s timeliness of communication? [open end]

[If prior part] H4. How satisfied were you with the timeliness of the SGIP PA's communications in 2023 in comparison to prior years? (More Satisfied in 2023, Less Satisfied in 2023, No Change, DK)

H1. On a scale of 1 to 5, where 1 is not at all helpful and 5 is extremely helpful, how helpful was/were the SGIP PA(s) in 2023? (1-5, N/A)

9. **[ASK IF H1< 3] H1a.** In what ways was/were the PA(s) not helpful? [open end]

10.

H5. How helpful were the SGIP program administrators in 2023 in comparison to prior years? (More helpful in 2023, Less Helpful in 2023, No Change, DK)

H2. On a scale of 1 to 5, where 1 is not at all accessible and 5 is very accessible, how accessible was/were the SGIP PA(s) in 2023? (1-5, N/A, DK)

11. **[ASK IF H2<3] H2a.** In what ways was/were the PA(s) not accessible? [open end]

12.

H6. How accessible were the SGIP program administrators in 2023 in comparison to prior years? (More accessible in 2023, Less accessible in 2023, No Change, DK)

H3. On a scale of 1 to 5, where 1 is not at all satisfied and 5 is extremely satisfied, how **satisfied** were you with **(each of) the PA(s)** overall, in relation to their role as an SGIP administrator in 2023? (1-5, N/A, DK)

[ASK IF H3< 3] H3a. Why were you unsatisfied? [open end]

H7. How **satisfied** were you with the SGIP program administrator(s) overall performance in 2023 compared to prior years? (More satisfied in 2023, Less satisfied in 2023, No Change, DK)

- 13.** Where would you recommend changes to the SGIP be made to streamline the program and/or make participation easier for applicants, developers and/or host customers?
- 14.** How do you think AB 209 statutory guidelines will impact your participation in the program?
- 15.** Do you think the equity budget categories are “bringing positive economic and workforce development opportunities to disadvantaged communities”? (i.e., is the program bringing in new applicants/developers?) If so, who and is it being tracked?

A.2 WEB SURVEYS

A.2.1 Applicant Web Survey

This document provides the recruitment email and web survey instrument that will be used to survey 2023 SGIP applicants for the 2023 PPPE.

Recruitment Email

Subject Line: How was your experience with the SGIP?

Thank you for participating in the Self-Generation Incentive Program (SGIP). At the request of the California Public Utilities Commission (CPUC), Verdant Associates is conducting research to assess SGIP applicants’ experience with the SGIP in 2023. Your survey responses will help inform program changes going forward, as well as the future of California’s energy policy.

You can start your survey by clicking on the link below.

[Complete the Survey](#)

If your e-mail software does not support web links or if you have other problems accessing the survey, please enter the following address in your web browser:

[\[survey web address\]](#)



The survey can be taken on a computer, tablet, or smartphone. Your responses are completely confidential and will not be shared other than in combination with other SGIP applicants.

Thank you in advance for your participation.

Amy Buege

Verdant Associates, LLC

surveys@verdantassoc.com



Reminder Email

Subject Line: Don't miss your opportunity to provide feedback on the SGIP

Thank you for participating in the Self-Generation Incentive Program (SGIP). At the request of the California Public Utilities Commission (CPUC) Verdant Associates is conducting research to assess the SGIP. A key part of the research is collecting the experiences and insights of applicants. Your responses are completely confidential and will only be shared in combination with other SGIP applicants' responses. **This opportunity to provide feedback will close on April 10th.**

To share your thoughts on the SGIP, simply click the link below.

[Complete the Survey](#)

If your e-mail software does not support web links or if you have other problems accessing the survey, please enter the following address in your web browser:

[\[survey web address\]](#)

Thank you in advance for your participation.

Amy Buege

Verdant Associates, LLC

surveys@verdantassoc.com



Web Survey Input Variables

Variable	Description
PGE_Flag	IF applicant participated in PG&E territory in 2023
SCE_Flag	IF applicant participated in SCE territory in 2023
SCG_Flag	IF applicant participated in SCG territory in 2023
CSE_Flag	IF applicant participated in CSE (SDG&E) territory in 2023
HomeOwner	IF applicant ONLY had projects where the applicant is also the homeowner (1,0)
Payment	Indicates whether applicant had any project that received a payment in 2023 (1,0)

Confirmation of Measure Volumes

M1a. Our records show that [If HomeOwner = 0 then “your firm” else “you”] submitted SGIP applications in 2023, is that correct?

- 1 Yes
- 2 No

IF M1a = No DISPLAY TEXT BELOW AND THEN TERMINATE SURVEY

“This surveying effort is directed towards organizations who submitted SGIP applications in 2023. Since your organization does not meet this criterion, we have no further questions for you. Thank you very much for your time and willingness to participate in this important study.”

M2. Did [If HomeOwner = 0 then “your firm” else “you”] submit any SGIP battery storage applications prior to 2023? [FORCE RESPONSE]

- 1 Yes, applications were submitted in years prior to 2023
- 2 No, applications were not submitted prior to 2023
- 99 Don’t know

Display: The following questions focus on your experience with the SGIP in 2023. Please try to keep your answers focused on your experience in 2023 only, unless otherwise noted.

Clarity

C6. On a scale of 1 to 5, where 1 is not at all satisfied and 5 is extremely satisfied, how satisfied were you with the clarity of the following SGIP aspects in 2023? [FORCE RESPONSE]

C6a. The SGIP eligibility requirements [1-5, N/A, Don't know]

C6b. The SGIP documentation requirements [1-5, N/A, Don't know]

C6c. Your SGIP application(s) status [1-5, N/A, Don't know]

[ASK IF C6a = (1,2)]

C7a. Why were you unsatisfied with the clarity of the SGIP eligibility requirements?

[RECORD] [FORCE RESPONSE]



[ASK IF C6b = (1,2)]

C7b. Why were you unsatisfied with the clarity of the SGIP documentation requirements?

[RECORD] [FORCE RESPONSE]

[ASK IF C6c = (1,2)]

C7c. Why were you unsatisfied with the clarity of your SGIP application(s) status?

[RECORD] [FORCE RESPONSE]

[Skip to end of block if C1a or C1 = 0 or DK]

[If Homeowner = 1]

C1a. How many clarifying questions or other inquiries did you have in 2023 for your SGIP program administrator? [FORCE RESPONSE]

1 [RECORD #] Number of questions [FORCE NUMERICAL VALUE]

99 Don't know

[If Homeowner = 0]

C1. On an average project, how many clarifying questions or other inquiries did your firm have in 2023 for the SGIP program administrator(s)? [FORCE RESPONSE]

1 [RECORD #] Number of questions [FORCE NUMERICAL VALUE]

99 Don't know

C4. In 2023, what types of questions did you ask the SGIP program administrator(s)? Select all that apply. **[Multi-select, Rotate 1-7] [FORCE RESPONSE]**

1 Clarifications on the SGIP Application Process

2 Clarifications on Project Technical Requirements

3 Clarifications on SGIP Documentation Requirements

4 Clarifications on Project Timelines or Extension Requests

5 Clarifications on SGIP Eligibility

6 Other [RECORD FORCE TEXT ENTRY IF CHOSEN]

99 Don't know [EXCLUSIVE]

[ASK IF C4 = 5]

C5. What types of eligibility requirements did you need clarification on? Select all that apply. **[Multi-select, Rotate 1-3]**

1 Equity eligibility

2 Resiliency eligibility

3 General market eligibility

4 Other [RECORD FORCE TEXT ENTRY IF CHOSEN]

99 Don't know [EXCLUSIVE]

Timeliness

[Matrix Column for each PA T1_<PA> to T4_<PA> for each PA {PGE, SCE, SCG, CSE} where <PA>_Flag =1]

T1_<PA>. In 2023, how long did it take, on average, for the SGIP program administrator to initially reply to an inquiry? [FORCE RESPONSE]

- 1 Within one hour
- 2 Within one day
- 3 Within 3 days
- 4 Within 5 days
- 5 Within 10 days
- 6 More than 10 days
- 77 Not applicable, we had no inquiries
- 99 Don't know

[Show all PA's from T1<PA> if T1_<PA> not equal to 77] [FORCE RESPONSE]

T3_<PA>. In 2023, what is the longest amount of time the SGIP program administrator took to resolve an inquiry?

- 1 A day
- 2 A week
- 3 2 weeks
- 4 A month
- 5 3 months
- 6 3 to 6 months
- 7 6 to 12 months
- 8 More than a year
- 99 Don't know

T4_<PA>. On a scale of 1 to 5, where 1 is not at all satisfied and 5 is extremely satisfied, how satisfied are you with the timeliness of the SGIP program administrator's communications? [Force Response]

- 1 1 Not at all satisfied
- 2 2
- 3 3
- 4 4
- 5 5 Extremely satisfied
- 77 N/A
- 99 Don't know

[ASK IF T4_<PA> = 1 or 2]

T4a_<PA>. Why were you unsatisfied with <PA>'s timeliness of communication?

- 1 [Open end, FORCE TEXT ENTRY IF CHOSEN]

[ASK IF M2 = 1]



H4_<PA>. How satisfied were you with the timeliness of the SGIP program administrator’s communications in 2023 compared to prior years? Were you...

- 1 More satisfied in 2023
- 2 Less satisfied in 2023
- 3 No change
- 99 Don’t know

Workshops and Office Hours

WK0. How [If HomeOwner = 0 then “does your firm” else “did you”] learn about changes to the SGIP (i.e., changes to incentives, eligibility rules, timelines, etc.)? Please select all that apply. **[multi-select, Rotate 1-9]**

- 1 Mail notifications
- 2 SGIP website(s)
- 3 Email
- 4 Webinars
- 5 Quarterly workshops
- 6 SGIP Handbook or E-Handbook
- 7 Update notifications in the application portal
- 8 Updates from other organizations
- 9 **[If PGE_Flag =1 or SCE_Flag =1]** Program administrator office hours
- 10 Other [RECORD, FORCE TEXT ENTRY IF CHOSEN]
- 99 Don’t Know [EXCLUSIVE]

WK1. How many of the SGIP quarterly workshops hosted by the program administrators did you attend in 2023? [FORCE RESPONSE]

- 1 None
- 2 1
- 3 2
- 4 3
- 5 4
- 99 Don’t know

[If WK1 in 2-5]

WK3. On a scale of 1 to 5, where 1 is not at all satisfied and 5 is extremely satisfied, how satisfied are you with the SGIP quarterly workshop(s) overall (including the format, information presented, and timing)?

- 1 1, Not at all satisfied
- 2 2
- 3 3
- 4 4
- 5 5, Extremely satisfied
- 99 Don’t know



[IF WK1 NE 1, DK]

WK3a. Do you have any recommendations for how the SGIP quarterly workshop(s) could be improved?

1 [Open End]

[If WK1 =1]

WK4. Why didn't you attend any quarterly workshops? Select all that apply. [multi-select, Rotate 1-3]

- 1 I didn't know about them
- 2 I wanted to, but my schedule didn't allow me to attend
- 3 I didn't think they were relevant to my role as an applicant
- 4 Other [RECORD, FORCE TEXT ENTRY IF CHOSEN]
- 99 Don't Know [EXCLUSIVE]

[If WK4 = 3 or 4]

WK4a. Do you have any recommendations for changes to the quarterly workshop(s) that would encourage you to attend?

1 [Open End]

[If PGE_Flag =1 or SCE_Flag =1 else skip to H1_<PA>] [FORCE RESPONSE]

OH1. Did you attend SGIP office hours hosted by PG&E or SCE in 2023? [allow respondent to select 1&2]

- 1 Yes, I attended PG&E office hours
- 2 Yes, I attended SCE office hours
- 3 No, I did not attend office hours
- 99 Don't know

[IF OH1= (1,2)]

OH4. On a scale of 1 to 5, where 1 is not at all satisfied and 5 is extremely satisfied, how satisfied were you with the office hours you attended?

- 1 1, Not at all satisfied
- 2 2
- 3 3
- 4 4
- 5 5, Extremely satisfied
- 99 Don't know

[ASK IF OH4 = 1,2]

HO4a. How could office hours be improved to increase your satisfaction with them?

[Open End, FORCE TEXT ENTRY IF CHOSEN]

PA Helpfulness and Accessibility

[Column for each PA: H1_<PA> to H3_<PA> for each PA {PGE, SCE, SCG, CSE} where <PA>_Flag = 1]



[If PA = PG&E, SCE or SCG then display] “The next questions ask you to rate various aspects of your experience with the SGIP administrator(s). When answering these questions, please think specifically about the program administrator’s role within SGIP.”

H1_<PA>. On a scale of 1 to 5, where 1 is not at all helpful and 5 is extremely helpful, how helpful **[if only 1 PA then “was the program administrator”, else “were each of the program administrators”]** in 2023? **[FORCE RESPONSE]**

- 1 1, Not at all helpful
- 2 2
- 3 3
- 4 4
- 5 5, Extremely helpful
- 99 Don’t Know

[ASK IF H1_<PA> = 1,2]

H1a_<PA>. How was <PA> unhelpful in 2023?

[Open End, FORCE TEXT ENTRY IF CHOSEN]

[ASK IF M2 = 1]

H5_<PA>. How helpful were the SGIP administrators in 2023 in comparison to prior years?

- 1 More helpful in 2023
- 2 Less helpful in 2023
- 3 No change
- 99 Don’t know

H2_<PA>. On a scale of 1 to 5, where 1 is not at all accessible and 5 is very accessible, how accessible **[if only 1 PA then “was the program administrator”, else “were each of the program administrators”]** in 2023?

- 1 1, Not at all accessible
- 2 2
- 3 3
- 4 4
- 5 5, Very accessible
- 99 Don’t Know

[ASK IF H2_<PA> =1,2]

H2a_<PA>. Please describe why you felt <PA> was inaccessible in 2023.

[Open end, FORCE TEXT ENTRY IF CHOSEN]

[ASK IF M2 = 1]

H6_<PA>. How accessible were the SGIP administrators in 2023 in comparison to prior years?

- 1 More accessible in 2023
- 2 Less accessible in 2023
- 3 No change
- 99 Don’t know



H3_<PA>. On a scale of 1 to 5, where 1 is not at all satisfied and 5 is extremely satisfied, how satisfied were you overall with the SGIP administrator(s) in 2023?

- 1 1, Not at all satisfied
- 2 2
- 3 3
- 4 4
- 5 5, Extremely satisfied
- 99 Don't know

[ASK IF H3_<PA> = 1,2]

H3a_<PA>. Why were you unsatisfied with <PA> in 2023?

[Open end, FORCE TEXT ENTRY IF CHOSEN]

[ASK IF M2 = 1]

H7_<PA>. How satisfied were you with the SGIP administrator(s) overall performance in 2023 in comparison to prior years?

- 1 More satisfied in 2023
- 2 Less satisfied in 2023
- 3 No change
- 99 Don't know

[ASK IF Payment = 1]

K6. How satisfied were you with the time it takes to receive the upfront incentive in 2023?

- 1 [RECORD 1 to 5]
- 77 No upfront incentives have been received
- 99 Don't know

[ASK IF K6 = (1,2)]

K6a. Why were you unsatisfied with the time it takes to receive the upfront incentive?

[Open End, FORCE TEXT ENTRY IF CHOSEN]

Website

[Column for selfgenca.com and each PA: W4_<PA> to W5_<PA> for each PA {PGE, SCE, SCG, CSE} where <PA>_Flag = 1]

W4_<PA>. On a scale of 1 to 5, where 1 means not at all useful, and 5 means extremely useful, how useful were the SGIP and program administrator's websites in 2023? [FORCE RESPONSE]

- 1 1 Not at all useful
- 2 2
- 3 3
- 4 4
- 5 5 Extremely useful

- 6 Did not visit website
- 98 Don't know

[ASK IF W4_<PA> = {1-5}]

W5. Do you have any recommendations for how the SGIP websites could be improved in the future? (If comment pertains to a specific program administrator's website please note in response)
[Open end]

W6. Have you utilized the new online SGIP E-Handbook? [FORCE RESPONSE]

- 1 Yes
- 2 No – I am aware of the new online SGIP E-Handbook but have not utilized it
- 3 No – I was not aware of the new online SGIP E-Handbook
- 4 Don't Know

[ASK IF W6 = 1]

W7. Is the new SGIP E-Handbook easier or harder to use than the old Handbook?

- 1 The E-Handbook is much easier to use
- 2 The E-Handbook is somewhat easier to use
- 3 The E-Handbook has a similar ease of use
- 4 The E-Handbook is somewhat harder to use
- 5 The E-Handbook is much harder to use
- 6 I have not used the prior SGIP Handbook
- 7 Don't Know

[ASK IF W6=1]

W8. Do you have any recommendations for additional improvements to the SGIP E-Handbook?
[Open end]

Challenges and Recommendations for Program Improvement

[If HomeOwner = 0]

R2. Does your organization currently market to customers eligible for any of the Equity budget categories? Select all that apply. [FORCE RESPONSE]

- 1 Yes – we market to Residential Equity budget category customers
- 2 Yes – we market to Non-Residential Equity budget category customers
- 3 Yes – we market to Equity Resiliency budget category customers
- 4 No – we do not market to Equity budget category customers [Exclusive]
- 5 Other [Open end]
- 99 Don't know [Exclusive]

[If HomeOwner = 0]

R2a. Does your organization plan to market to customers eligible for any of the Equity budget categories in the future? Select all that apply. [FORCE RESPONSE]

- 1 Yes – we plan to continue to market to Residential Equity budget category customers [Display if R2_1 = 1]
- 2 Yes – we plan to market to Residential Equity budget category customers [Display if R2_1 ne 1]
- 3 Yes – we plan to continue to market to Non-Residential Equity budget category customers [Display if R2_2 = 1]
- 4 Yes – we plan to market to Non-Residential Equity budget category customers [Display if R2_2 ne 1]
- 5 Yes – we plan to continue to market to Equity Resiliency budget category customers [Display if R2_3 = 1]
- 6 Yes – we plan to market to Equity Resiliency budget category customers [Display if R2_3 ne 1]
- 7 No – we do not plan to market to Equity budget category customers [Exclusive]
- 8 Other [Open end]
- 99 Don't Know [Exclusive]

[If R2a ne 1 and 2 then ask R2b]

R2b. Why aren't you planning to market to Residential Equity budget category eligible customers?

- 1 We don't serve residential customers
- 2 Other [Open end]
- 99 Don't Know

[If R2a ne 3 and 4 then ask R2c]

R2c. Why aren't you planning to market to Non-Residential Equity budget category eligible customers?

- 1 We don't serve non-residential customers
- 2 Other [Open end]
- 99 Don't Know

[If Homeowner = 0 ask R3]

R3. Has your organization faced any challenges participating in the SGIP? [FORCE RESPONSE]

- 1 Yes
- 2 No
- 99 Don't Know

[If Homeowner = 1 ask R3a]

R3a. Have you faced any challenges participating in the SGIP? [FORCE RESPONSE]

- 1 Yes
- 2 No
- 99 Don't Know

[If R3 = 1]

R4. Please describe the challenges your organization has faced to SGIP participation and indicate if the challenges pertain to a single budget category or all budget categories.

[Open End]



[If R3a = 1]

R4a. Please describe the challenges you have faced to SGIP participation.

[Open End]

R5. Have any of the SGIP application forms been overly burdensome? If yes, please identify the form and describe how it was burdensome. [FORCE RESPONSE]

- 1 Yes [RECORD] [FORCE RESPONSE]
- 2 No
- 99 Don't Know

[If Homeowner = 0]

R6. Do you have any recommendations for SGIP changes that would ease participation for you or your customers?

[Open end]

[If Homeowner = 1]

R6a. Do you have any recommendations for changes to the SGIP that would have eased participation?

[Open end]

R7. Would you be willing to participate in a short 5-minute follow-up call to discuss the SGIP feedback you have provided today?

- 1 Yes
- 2 No
- 99 Don't Know

[If R7 = 1]

R8. Please provide your name, phone number and the best time of day to reach you.

[Name]

[Phone]

[Best time of day to call]

Those are all of the questions we have for you at this time. Thank you very much for your participation in this survey.

A.2.2 Host Customer Web Survey

This document provides the recruitment email and web survey instrument that will be used to survey 2023 SGIP host customers for the 2023 PPPE. It also includes two short 3 question in-email surveys for host customers whose 2023 SGIP application was either cancelled or Waitlisted.

Recruitment Email SGIP Host Customers (excluding Cancelled and Waitlisted HC's)

Subject Line: How was your experience with the SGIP?



Thank you for participating in the Self-Generation Incentive Program (SGIP). At the request of the California Public Utilities Commission (CPUC), Verdant Associates is conducting research to assess SGIP participants' experience with the SGIP in 2023. Your survey responses will help inform program changes going forward, as well as the future of California's energy policy.

You can start your survey by clicking on the link below.

Follow this link to the Survey

If your e-mail software does not support web links or if you have other problems accessing the survey, please enter the following address in your web browser:

[\[survey web address\]](#)

The survey can be taken on a computer, tablet, or smartphone. Your responses are completely confidential and will not be shared other than in combination with other SGIP participants.

Thank you in advance for your participation.

Amy Buege

Verdant Associates, LLC

surveys@verdantassoc.com



Reminder Email

Subject Line: Be a part of shaping the future of the SGIP

Thank you for participating in the Self-Generation Incentive Program (SGIP). At the request of the California Public Utilities Commission (CPUC) Verdant Associates is conducting research to assess the SGIP. A key part of the research is collecting the experiences and insights of customers at every stage of their SGIP journey (even if your project is not complete, we still value any input you provide). Your responses are completely confidential and will only be shared in combination with other SGIP customers' responses.

To share your thoughts on the SGIP, simply click the link below.

[Complete the Survey](#)



If your e-mail software does not support web links or if you have other problems accessing the survey, please enter the following address in your web browser:

[survey web address]

Thank you in advance for your participation.

SURVEY INPUT VARIABLES

Variable	Description
HomeOwner	Flag indicates whether host customer is a homeowner (1) vs. an organization (0)
Company_Name	If Nonresidential: Name of the Host Customer's Company If Residential: N/A
onlyHost	1 if the host customer is only the host customer and NOT the applicant (self-applicant)
ApplicantNoSelf_and_list	Name of the Applicant Company Associated with the Host Customer, if applicant is NOT host customer
PA	PA for application, if more than one application and PA select the PA that has fewest applications (overall) in 2023
InspectionFlag	Indicates if Host Customer got to Inspection Step in 2023
Payment_Flag	Indicates if host customer reached payment stage in 2023
PGE_Flag	Customer submitted SGIP application to PG&E
SCE_Flag	Customer submitted SGIP application to SCE
SCG_Flag	Customer submitted SGIP application to SCG
CSE_Flag	Customer submitted SGIP application to CSE
Payment_Flag	Indicates if host customer reached payment stage in 2023

[IF Homeowner = 0 THEN DISPLAY: "Thank you for agreeing to take this survey regarding your experience with California's Self-Generation Incentive Program (SGIP). Throughout this survey, we will be referencing the battery storage project(s) your organization, <Company_Name>, applied for in 2023.]

[IF Homeowner = 1 THEN DISPLAY: "Thank you for agreeing to take this survey regarding your experience with California's Self-Generation Incentive Program (SGIP). Throughout this survey, we will be referencing the battery storage project(s) you applied for in 2023 for your home.]

Background

A1. Our records shows that you [IF OnlyHost = 1 THEN ", or (<Applicant>) on your behalf,"] applied for an incentive in 2023 from California's Self-Generation Incentive Program (SGIP) for a battery storage system. Is this correct? [FORCE RESPONSE]

- 1 Yes
- 2 No



[ASK IF Homeowner = 1]

A2. Was this battery storage system intended for use at your home? [FORCE RESPONSE]

- 1 Yes, for use at my home or the home of a family member
- 2 No, for use at a customer's home
- 3 No, for use at my company's facility (which is not a home)
- 99 Don't know

[ASK IF Homeowner = 0] [FORCE RESPONSE]

A3. Was this battery storage system intended for use at your company's facility or at a customer's home?

- 1 Yes, for use at a customer's home
- 2 Yes, for use at a company facility
- 3 No, for use at my home or the home of a family member
- 99 Don't know

[IF A1 = No OR (A2 ne 1 and HomeOwner = 1) or (A3 ne 1 and HomeOwner = 2) then DISPLAY TEXT BELOW THEN TERMINATE SURVEY]

You do not meet the criteria for this survey. Thank you very much for your time and willingness to participate in this important study. If you would like to provide any feedback about your experience participating in the SGIP please email your feedback to surveys@verdantassoc.com using the subject line, 'SGIP Customer Feedback'. Please share all feedback by April 10th.

A6_MA. Do you have a solar PV system installed at your [IF Homeowner = 1 "home", IF Homeowner = 0 "organization's facility"]? [FORCE RESPONSE]

- 1 Yes
- 2 No
- 3 Don't Know

[Display if A6_MA =1]

A7_MA. When was the solar PV system purchased?

- 1 At the same time as the storage system
- 2 Before the storage system
- 3 After the storage system
- 4 Portions of the Solar PV were installed before and after the storage system
- 5 Other [RECORD]
- 6 Don't know

A5_MA. How did you first learn about **battery storage systems**? [Rotate 1-6, select one]

- 1 **[IF OnlyHost = 1]** Through <Applicant>
- 2 Through my utility

- 3 Through SGIP materials
- 4 Personal research, social media, or podcast
- 5 Professional experience/personal knowledge
- 6 Family and friends (word of mouth)
- 7 Other [RECORD]
- 8 Don't know

A5. What were the top three reasons you decided to install a battery storage system? Place the top reason in column 1, the second most important in 2 and the third in 3. **[Rotate 1-8]**

- 1 **[IF Homeowner = 1]** To save money on my home's electric bill
- 2 **[IF Homeowner = 0]** To save money on my company's electric bill
- 3 To improve the environment, reduce greenhouse gas emissions and help address climate change
- 4 **[A6_MA =1]** To use more of the solar power that we generate
- 5 To provide backup / emergency power in the event of an outage
- 6 **[IF Homeowner = 1]** To provide backup for essential medical needs
- 7 The availability of SGIP incentives and/or federal tax credits
- 8 **[IF Homeowner = 1]** To increase the value of my home
- 77 Other [RECORD]
- 88 No further reasons
- 99 Don't know [EXCLUSIVE]

Bar1. What were the top three barriers you faced to installing a battery storage system? Please rank the selected barriers from largest (column 1) to smallest (column 3) **[Rotate 1-5]**

- 1 Cost of battery storage
- 2 Availability of battery storage (e.g., Supply chain issues)
- 3 Space available on-site for battery storage
- 4 Time to manage battery storage installation project
- 5 Knowledge of battery storage technology
- 6 Other [RECORD]
- 88 No further barriers
- 99 Don't Know [EXCLUSIVE]

A4. How did you first learn about the **Self-Generation Incentive Program (SGIP)**? **[Rotate 1-7, select one]**

- 1 **[IF OnlyHost = 1]** Through < Applicant >
- 2 From my utility
- 3 Online research
- 4 Family and friends (word of mouth)

- 5 Through a vendor or installer
- 6 I was not aware of the SGIP before taking this survey
- 7 Other [RECORD]
- 99 Don't know

X1. Do you recall when the SGIP incentive was first discussed in relation to your battery storage project?

- 1 In the first meeting about the battery storage project
- 2 When the initial cost estimate was delivered
- 3 When the final cost proposal was delivered
- 4 I do not recall discussing the SGIP incentive
- 5 Other [Open end]
- 6 Don't know

[if Payment_Flag = 1]

X2. Who was the SGIP incentive paid to?

- 1 [If Homeowner = 1] The SGIP incentive was paid to me or someone in my household
- 2 [If Homeowner = 0] The SGIP incentive was paid to my organization
- 3 The SGIP incentive was paid to another party to bring down the final project cost
- 4 Other [Open End]
- 5 Don't know

[if Payment_Flag = 0]

X3. Who will the SGIP incentive be paid to?

- 1 [If Homeowner = 1] The SGIP incentive will be paid to me or someone in my household
- 2 [If Homeowner = 0] The SGIP incentive will be paid to my organization
- 3 The SGIP incentive will be paid to another party to bring down the final project cost
- 4 Other [Open End]
- 5 Don't know

[if Payment_Flag = 1]

X4. How did the final SGIP incentive compare to the initial incentive estimate?

- 1 The final SGIP incentive was **greater** than the initial incentive estimate
- 2 The final SGIP incentive was **less** than the initial incentive estimate
- 3 The final SGIP incentive was **similar** to the initial incentive estimate
- 4 Other [Open end]
- 5 Unsure of the final SGIP incentive amount
- 6 Don't Know

[if Payment_Flag = 1]

X5. How did the final cost of the battery storage system compare to the initial cost estimate?

- 1 The final cost of the battery storage system was **greater** than the initial cost estimate
- 2 The final cost of the battery storage system was **less** than the initial cost estimate
- 3 The final cost of the battery storage system was **similar** to the initial cost estimate
- 4 Other [Open end]
- 5 Unsure of the final cost of the battery storage system
- 6 Don't know

[If X5 = 1 or 2]

X6. What led to the difference between the final cost of the battery storage system and the initial cost estimate?

[Open End]

Like. What is the likelihood that you would have installed (or would install) a battery storage system without participating in the SGIP? [Note: The SGIP provides incentives to bring down the cost of installing battery storage] [FORCE RESPONSE]

- 1 Extremely likely
- 2 Somewhat likely
- 3 Not at all likely
- 4 Don't know

Communication

C1. Who have you primarily interacted with regarding your battery storage project? (Rotate 1 and 2)
[FORCE RESPONSE]

- 1 <Applicant>
- 2 <PA>
- 3 Other [RECORD]

[If C1 = 2] [FORCE RESPONSE]

C1_app. Have you also interacted with <Applicant> regarding your battery storage project?

- 1 Yes
- 2 No
- 3 Don't know

[If C1 = 1] [FORCE RESPONSE]

C1_pa. Have you also interacted with <PA> regarding your battery storage project?

- 1 Yes
- 2 No
- 3 Don't know

[If C1 = 2 or C1_pa = 1]

C2_<PA>. On a scale of 1 to 5, where 1 is not at all clear and 5 is extremely clear, how clear were the following program aspects communicated to you in 2023 by <PA>?

C2b. Project documentation requirements **[1-5, N/A, Don't know]**

C2c. Program timeline **[1-5, N/A, Don't know]**

C2d. SGIP application status **[1-5, N/A, Don't know]**

C2e. **[IF OnlyHost = 1]** Division of responsibility between me and <Applicant> **[1-5, N/A, Don't know]**

[If C1 = 1 or C1_app = 1]

C2_Applicant. On a scale of 1 to 5, where 1 is not at all clear and 5 is extremely clear, how clearly were the following program aspects communicated to you by <Applicant> in 2023?

C2Appb. Project documentation requirements **[1-5, N/A, Don't know]**

C2Appc. Program timeline **[1-5, N/A, Don't know]**

C2Appd. SGIP application status **[1-5, N/A, Don't know]**

C2Appe. **[IF OnlyHost = 1]** Division of responsibility between me and <Applicant> **[1-5, N/A, Don't know]**

[ASK IF C2b = 1 or 2 or C2Appb = 1 or 2]

C2b_Explain. What was unclear about the SGIP **project documentation requirements**? Select all that apply. **[MULTI-SELECT, rotate 1-5]**

- 1 Documentation requirements were too technical
- 2 **[IF C1=2 or C1_pa = 1]** Documentation requirements kept changing based on correspondence with <PA>
- 3 **[IF OnlyHost = 1 and (c1 = 1 or C1_pa =1)]** Documentation requirements kept changing based on correspondence with <Applicant>
- 4 **[IF OnlyHost = 1 and ((c1 = 1 and C1_pa =1) or (c1 = 2 and C1_pa =1))]** I received conflicting information from <PA> and <Applicant> regarding project documentation requirements
- 5 Documentation requirements were too generic
- 6 I was not involved with project documentation requirements **[EXCLUSIVE]**
- 7 Other **[RECORD]**
- 99 Don't know **[EXCLUSIVE]**

[ASK IF C2c = 1 or 2 or C2Appc = 1 or 2]

C2c_Explain. What was unclear about the SGIP **program timelines**?

[Open End]

[ASK IF C2d = 1 or 2 or C2Appd = 1 or 2]

C2d_Explain. What was unclear about the **status of your SGIP application**? Select all that apply. **[MULTI-SELECT, rotate 1-6]**

- 1 I could not determine the status of my SGIP application
- 2 There were long periods of time with no status updates
- 3 I didn't know why my application was not moving to the next step
- 4 I didn't know when my application would move to the next step
- 5 I didn't know how to check the status of my application
- 6 It was unclear why the application entered a particular status
- 7 Other [RECORD]
- 99 Don't know [EXCLUSIVE]

[ASK IF C2e = 1 or 2 or C2Appe = 1 or 2]

C2e_Explain. What was unclear about the **division of responsibility between you and <Applicant>**?

Select all that apply. **[MULTI-SELECT]**

- 1 I thought <Applicant> would handle MORE SGIP responsibilities
- 2 It was unclear who was supposed to respond to SGIP communications: myself or <Applicant>
- 3 Other [RECORD]
- 99 Don't know [EXCLUSIVE]

[ASK IF Homeowner=1 AND OnlyHost = 1] [FORCE RESPONSE]

C4. Did <PA> or <Applicant> notify you of the requirement to enroll in SGIP-approved electricity rates?

Select all that apply. **[MULTI-SELECT]**

- 1 Yes, <PA> notified me
- 2 Yes, <Applicant> notified me
- 3 No, I learned about this requirement on my own
- 4 No, I was not aware that this was an SGIP requirement
- 5 Other [RECORD]
- 99 Don't know [EXCLUSIVE]

[ASK IF Homeowner=1 AND Only Host z= 0] [FORCE RESPONSE]

C4b. Did <PA> notify you of the requirement to enroll in SGIP-approved electricity rates?

- 1 Yes, <PA> notified me
- 2 No, I learned about this requirement on my own
- 3 No, I was not aware that this was an SGIP requirement
- 4 Other [RECORD]
- 100 Don't know [EXCLUSIVE]

[If C4 = 1 – 3 or C4b = 1-2]

C5. On a scale of 1 to 5, where 1 is very poor and 5 is excellent, how would you rate your understanding of the potential impact an SGIP-approved electricity rate could have on your electricity bill?

- 1 1 – Very poor understanding
- 2 2
- 3 3
- 4 4
- 5 5 – Excellent understanding
- 99 Don't know

Website

E1. Please select which of the following SGIP-related websites you visited: **[MULTI-SELECT] [FORCE RESPONSE]**

- 1 SelfGenCA.com
- 2 [if PA = PGE] PGE's SGIP website (PGE.com/SGIP)
- 3 [if PA = CSE] CSE's SGIP website (Sgipsd.org)
- 4 [if PA = SCE] SCE's SGIP website (SCE.com/SGIP)
- 5 [if PA = SCG] SCG's SGIP website (SoCalGas.com/for-your-business/power-generation/self-generation-incentive)
- 6 New E-handbook (sgiphandbook.com)
- 7 None of the above **[EXCLUSIVE ANSWER]**

[Ask if selected at least one choice from E1]

E2. Do you have any recommendations for changes to SGIP websites to make them more useful?
[RECORD]

Satisfaction with participation

[FOR H1a Through H1f, show in a table which allows for selection of: [1-5, N/A, Don't know] [FORCE RESPONSE]

H1. On a scale of 1 to 5, where 1 is not at all satisfied and 5 is extremely satisfied, how satisfied were you in 2023 with the following: **[1-5, N/A, Don't know]**

H1a. [ASK IF InspectionFlag = 1] The inspection scheduling process

H1b. [ASK IF PAYMENT_FLAG = 1] The time it takes to receive the upfront incentive

H1d. Communications from <PA> regarding SGIP

H1e. [ASK IF OnlyHost=1] Communications from <Applicant> regarding SGIP

H1f. [If C1 = 2 or C1_pa = 1] Your experience with <PA> in relation to the SGIP

[ASK IF H1d = 1 or 2]

H1d_Explain. Why were you unsatisfied with the **communications from <PA> regarding SGIP?** Select all that apply. **[MULTI-SELECT, Rotate 1-5]**

- 1 I did not receive enough information
- 2 Written communications did not provide clear information
- 3 Written communications were too infrequent
- 4 The language used in communications was confusing
- 5 I did not know what to do upon receiving certain communications
- 6 Other [RECORD]
- 7 I don't recall receiving any communications from <PA> regarding the SGIP [EXCLUSIVE]
- 99 Don't know [EXCLUSIVE]

[ASK IF H1e = 1 or 2]

H1e_ Explain. Why were you unsatisfied with the **communication provided by <Applicant>?** Select all that apply. **[MULTI-SELECT, Rotate 1-7]**

- 1 They did not provide enough information throughout the SGIP process
- 2 They were not well informed about the SGIP
- 3 They poorly explained the role of the SGIP incentive for my battery storage project
- 4 Other [OPEN]
- 5 I don't recall receiving any information from <Applicant> regarding the SGIP [EXCLUSIVE]
- 99 Don't know [EXCLUSIVE]

[ASK IF H1f = 1 or 2]

H1f_ Explain. What were the primary reasons you were unsatisfied with **<PA> in relation to the SGIP?** (Rotate 1 – 5, multi-select)

- 1 Difficult and/or time-consuming to reach <PA> staff
- 2 Conflicting information was routinely provided by <PA> staff
- 3 Application feedback provided inefficiently (e.g., a single issue at a time)
- 4 Lack of transparency in application process or timelines
- 5 Difficult to understand SGIP materials (e.g., overly technical or SGIP jargon)
- 6 Other [Record]
- 99 Don't Know [Exclusive]

Satisfaction with battery storage system

H7. If your battery storage system has been installed, please rate on a scale of 1 to 5, where 1 is not at all satisfied and 5 is extremely satisfied, your satisfaction with the battery storage system. **[1-5, Battery storage not yet installed, Don't know] [FORCE RESPONSE]**

[ASK IF H7 = 1 or 2]

H7_ Explain. What were the top three reasons why you were unsatisfied with the battery storage system? Please rank the selected reasons from most important (column 1) to least important (column 3).

- | | |
|----|--|
| 1 | The battery storage system did not work as expected |
| 2 | Dealer misrepresented the operational capabilities of battery storage system |
| 3 | Would like more control over the battery storage system's operation |
| 4 | Did not achieve the expected financial savings |
| 5 | Battery storage physical size or appearance is undesirable |
| 6 | Other [RECORD] |
| 7 | No further reasons |
| 99 | Don't know [EXCLUSIVE] |

[ASK IF H7 not equal to "not installed"] [FORCE RESPONSE]

Perf6. Have you used your battery storage system to provide backup power during an outage lasting longer than one hour?

- | | |
|----|------------|
| 1 | Yes |
| 2 | No |
| 99 | Don't know |

[ASK IF Perf6=Yes]

Perf10: How satisfied were you, where 1 is not at all satisfied and 5 is extremely satisfied, with the performance of the battery storage system during the outage? **[1-5, N/A, Don't know]**

Process

B1. In 2023, did you experience any issues or delays with your SGIP application or battery storage project? **[FORCE RESPONSE]**

- | | |
|----|------------|
| 1 | Yes |
| 2 | No |
| 99 | Don't know |

[IF B1= 1 then Ask B2, ELSE SKIP TO Res1]

B2. What issues or delays did you experience? Select all that apply. **[MULTI-SELECT]**

- | | |
|---|---|
| 1 | Issue or delay with SGIP application |
| 2 | Delay in system installation |
| 3 | Delay in system interconnection |
| 4 | Problem with the battery storage system |
| 5 | My developer/installer went out of business |
| 6 | Other [RECORD] |

99 Don't know [EXCLUSIVE]

B5. Were your issues or delays resolved?

- 1 Yes
- 2 No
- 3 Some yes, some no
- 99 Don't know

[ASK IF Homeowner = 1]

Res1. Does anyone in your household drive an electric vehicle (EV)?

- 1 Yes
- 2 No
- 99 Don't know

[ASK IF Homeowner = 1]

Res3. Does anyone in your household have health conditions that require electricity to power medical equipment?

- 1 Yes
- 2 No
- 99 Don't know

[ASK IF Homeowner = 1]

Res7. Compared to others, which description best describes you or your household?

- 1 Usually the last to try a new product
- 2 Usually among the last to try a new product
- 3 Usually in the middle when it comes to trying a new product
- 4 Usually among the first to try a new product
- 5 Usually the first to try a new product
- 6 Don't know

[ASK IF Homeowner = 1]

Res4. Which of the following best represents your annual household income from all sources before taxes?

- 1 Less than \$50,000
- 2 \$50,000 or more but less than \$75,000
- 3 \$75,000 or more but less than \$100,000
- 4 \$100,000 or more but less than \$200,000
- 5 \$200,000 or more but less than \$300,000
- 6 \$300,000 or more
- 7 Don't know



END: The survey has completed. Thank you for taking the time to provide your feedback on the Self-Generation Incentive Program.



Recruitment Email for SGIP Host Customers with Cancelled Applications

Subject Line: Why was your SGIP application cancelled?

At the request of the California Public Utilities Commission (CPUC), Verdant Associates is conducting research to assess the Self-Generation Incentive Program (SGIP). According to the data we received, your **[household/organization]** submitted an SGIP incentive application that was cancelled and we have a couple questions about this cancelled application. Your responses are completely confidential and will not be shared other than in combination with other customers who have submitted SGIP applications.

What was the primary reason your SGIP application was cancelled?

1. Project was deemed ineligible for an SGIP incentive
2. I am no longer interested in installing a battery storage system at my **[home/business]**
3. SGIP application process was too burdensome
4. SGIP application process took too long
5. Other [RECORD]
6. Don't Know

[Questions below appears if first question is answered and response is not equal to #2]

Do you still plan to install a battery storage system at your **[home/business]**?

1. Yes – I have installed a battery storage system at my **[home/business]** without an incentive
2. Yes – I plan to install a battery storage system at my **[home/business]** without an incentive
3. No - I am no longer interested in installing a battery storage system at my **[home/business]**
4. Other [RECORD]
5. Don't Know

Thank you for your participation.

Amy Buege
Verdant Associates, LLC
surveys@verdantassoc.com

Recruitment Email for SGIP Host Customers with Waitlisted Applications

Subject Line: Waitlisted SGIP Battery Storage Project



At the request of the California Public Utilities Commission (CPUC), Verdant Associates is conducting research to assess the Self-Generation Incentive Program (SGIP). According to the data we received, your **[household/organization]** submitted an SGIP incentive application that was waitlisted and we have a couple questions about this waitlisted application. Your responses are completely confidential and will not be shared other than in combination with other customers who have submitted SGIP applications.

Has the battery storage system been installed?

1. It is fully installed and operational
2. It is fully installed but is not yet operational
3. It is partially installed
4. It has not yet been installed but will be installed soon
5. It has not been installed and will not be installed unless the project gets off the waitlist
6. This battery storage system project has been cancelled
7. Other [RECORD]
8. Don't Know

[Questions below appears if first question is answered and response is equal to #1-4]

Is your understanding that your project will eventually come off the waitlist and receive the SGIP incentive?

1. It is our understanding that the incentive will be paid in the future
2. It is our hope that the incentive is paid in the future, but we know it is not certain
3. We are doubtful that it will receive an incentive
4. Other [RECORD]
5. Don't Know

Thank you for your participation.

Amy Buege
Verdant Associates, LLC
surveys@verdantassoc.com

APPENDIX B HOST CUSTOMER SURVEY RESPONSES



AppendixB_HostCu
stomer_SurveyRespc

APPENDIX C APPLICANT SURVEY RESPONSES



AppendixC_Applica
ntSurveyResponses.

APPENDIX D NAMING CONVENTION COMPARISON

The table on the following page highlights the different naming conventions and references between various areas within the application process.

NAMING CONVENTIONS AND REFERENCES WITHIN THE APPLICATION PROCESS

Name in Online Document Upload Portal	Name in Handbook	Name on Form	Name in Checklist
(RRF) Reservation Request Form	Online Reservation Request Form	Reservation Request Form	Completed Reservation Request Form
(RRF) Copy of Executed Contract or Agreement for Installation	Executed Contract and/or Agreement for System Installation	[UNCLEAR]	No details provided
(RRF) Proof of Gas Service Proof of Electric Service	Proof of Utility Service	No Form	Proof of Utility Service
(RRF) Gas Load Documentation Electric Load Documentation	Load Documentation	No Form	Load Documentation
(RRF) Preliminary Monitoring Plan	Preliminary Monitoring Plan	Energy Storage Preliminary Monitoring Plan	Preliminary Monitoring Plan
(RRF) Storage Sizing Worksheet	[UNCLEAR]	Energy Storage Sizing Worksheet ¹	
(RRF) Customer Resiliency Attestation	Proof of Resiliency Eligibility	No Form	Customer Resiliency Attestation
(RRF) CSE Authorization to Receive Customer Information	Note that applicants must submit "Authorization to Receive Customer Information form"	Authorization to: Receive Customer Information or Act on a Customer's Behalf	No details provided
(RRF) Proof of PSPS Events	No details provided	No details provided	No details provided
(RRF) Minimum Operating Efficiency Worksheet w/Back-up Documentation	Minimum Operating Efficiency Worksheet (MOEW)	No Form Name - File name is: Commercial Minimum Operating Efficiency Worksheet ²	Minimum Operating Efficiency Worksheet w/Backup Documentation
(RRF) Proof of Adequate Fuel or Waste Energy Resource	Proof of Adequate Fuel or Waste Energy Resource	No Form	Proof of Adequate Fuel or Waste Energy Resource
(RRF) Equipment Specifications	Equipment Specifications	No Form	Equipment Specifications
(RRF) Cal OES Coordination Proof	Proof of Coordination with Local Government and California Office of Emergency Services	No Form	Certification/Proof of Coordination with Local Government and California Office of Emergency Services
(RRF) Other Supporting Documentation	Proof of Equity Eligibility	No Form	Proof of Equity Budget Eligibility
	No details provided	Self-Generation Incentive Program (SGIP) Multi-family Low-Income Housing Documentation Cover Sheet	No details provided
	No details provided	Self-Generation Incentive Program Small Business Affidavit	No details provided
	No details provided	Attestation of Reliance for a SGIP Electric-Pump Well Incentive	No details provided
	No details provided	Self-Generation Incentive Program Host Customer Attestation of Medical Baseline Primary Residence and Self-Certification	No details provided
(PPM) Copy of Executed Contract or Agreement for Installation	Copy of Executed Contract or Agreement for Installation	No Form	Copy of Executed Contract or Agreement for Installation
(PPM) Other Supporting Documentation	Proposed Monitoring Plan	Proposed Monitoring Plan	No details provided
	Proof of Fuel Contract and Documentation	Self-Generation Incentive Program Waste Gas Fuel Affidavit	Proof of Fuel Contract and Documentation
		Self-Generation Incentive Program Directed Renewable Fuel System Owner Attestation	

NAMING CONVENTIONS AND REFERENCES WITHIN THE APPLICATION PROCESS

		Self-Generation Incentive Program Renewable Fuel Affidavit	
		Self-Generation Incentive Program Renewable Fuel System Owner Attestation	
		Self-Generation Incentive Program Renewable Fuel Supplier Attestation	
	[UNCLEAR]	Completed Proof of Project Milestone Form	[UNCLEAR]
	[UNCLEAR]		Copy of RFP or equivalent after 90 days
(ICF) Incentive Claim Form	[COULD NOT VERIFY] ³	Completed Incentive Claim Form	Completed Incentive Claim Form
(ICF) Proof of Authorization to Interconnect	Proof of Authorization to Interconnect	No Form	Proof of Authorization to Interconnect
(ICF) Final Building Inspection Report	Building Permit Inspection Report	No Form	Building Permit Inspection Report
	AHJ Approved Grid Island Capable Plans	No Form	AHJ Approved Grid Island Capable Plans
(ICF) Final Air Permitting Documentation	Air Permit Documentation	No Form	Air Permit Documentation
(ICF) Final Monitoring Schematic	Handbook provides details on what is needed	No Form	Final Monitoring Schematic
(ICF) Substantiation of Renewable Fuel or Waste Energy Resource	Substantiations - Renewable Fuel or Waste Energy Resource	No Form	Substantiations - Renewable Fuel or Waste Resource (On-site Renewable Fuel and Waste Energy Only)
(ICF) Other Supporting Documentation	Planned Maintenance Coordination Letter	Planned Maintenance Coordination for SGIP Incentive	Planned Maintenance Coordination Letter
	No details provided	No details provided	PBI Setup Sheet
	No details provided	Final Project Cost Affidavit	No details provided
	Substantiations: - New Construction or Expanded Load - Residential Projects Without - Access to SGIP Approved TOU Rates - VNEM Project - Large Thermal Energy Storage - Post- Installation Monitoring Data Fuel Cleanup Skid Cost Documentation - Renewable Fuel Documentation & Contract Commencement Renewable Fuel Metering Specifications	No Form	Substantiations: - New Construction or Expanded Load - Fuel Cleanup Skid Cost (On-site Renewable Fuel Only) - Renewable Fuel Documentation/Contract Commencement (Directed Renewable Fuel Only) - Renewable Fuel Metering Specifications (Directed Renewable Fuel Only)

¹ This document does not appear to exist on the SGIP Resources page. Only as a link from the application itself.

² There are 6 different MOEW listed on the SGIP Resources page; Commercial & Residential MOEW, 2016 Commercial and Residential MOEW, and Pre-2016 Commercial and Residential MOEW

³ Verdant was not able to verify the application process at the PPM or ICF stage.