



SELF-GENERATION INCENTIVE PROGRAM

Self-Generation Incentive Program (SGIP) 4th Quarterly Workshop

Monday, December 13, 2021

Microsoft Teams Meeting





Introduction

Program Administrators



- PG&E: Ron Moreno, Ozzy Guzman, James Liu, Jacklin Campos-Perez, Neil Yazma
- SCE: Jim Stevenson, Vicky Velazquez
- CSE: Andi Woodall, Melissa Cintron, Shalene Watanabe-O'Toole
- SCG: Jason Legner, Laura Diaz, Jan Santos, Sandi Linares-Plimpton



SGIP Support



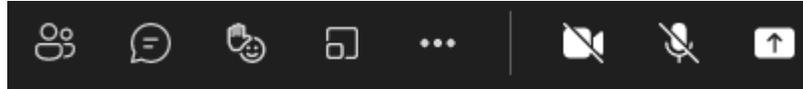
- Energy Division: Asal Esfahani, Jonathan Lakey
- AESC: Dara Salour, Stephanie Raya
- Energy Solutions: Tamara Perry, Kelsey Albers, Andrew Chow
- WattTime: Henry Richardson



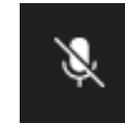
Microsoft Teams Meeting



- Controls

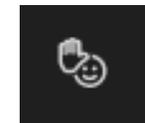


- Please remain on Mute during presentations

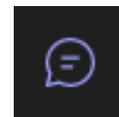


- Time is reserved for questions after each presentation. You may:

- Use the Hand Raise button to verbally ask your question
- Enter your question into the chat



OR



Agenda (9:00 am – 1:00 pm PST)



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- Welcome and Introduction
- Program Metrics
- Regulatory Updates
- WattTime Presentation (GHG Signal)
- Energy Solutions Presentation (SGIP Database)
- SGIP Handbook Redesign
- Streamlining Advice Letter Update
- Streamlining Technical Working Group (TWG) Discussion



Agenda (9:00 am – 1:00 pm PST)



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Breaks

- 10:30 – 10:45 am
- 12:00 – 12:15 pm





Program Metrics

Melissa Cintron, CSE

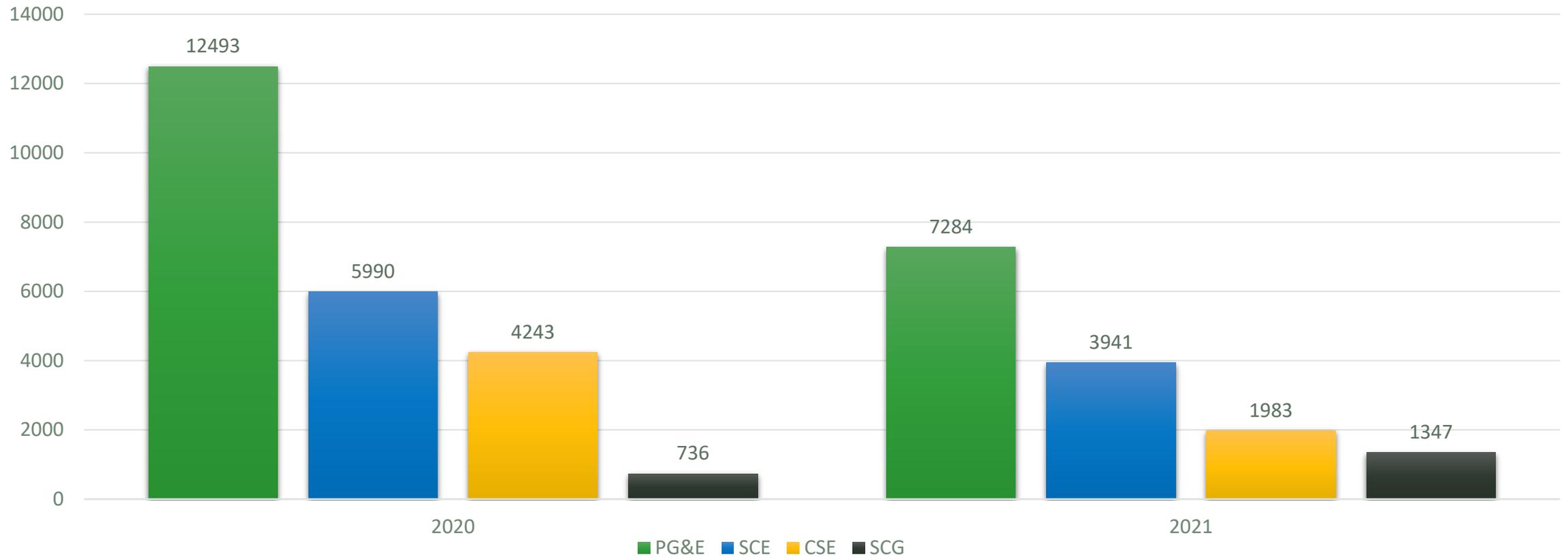
Number of Applications by Program Year and PA

Energy Storage Data 2020 – December 9, 2021



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Number of Applications Submitted:



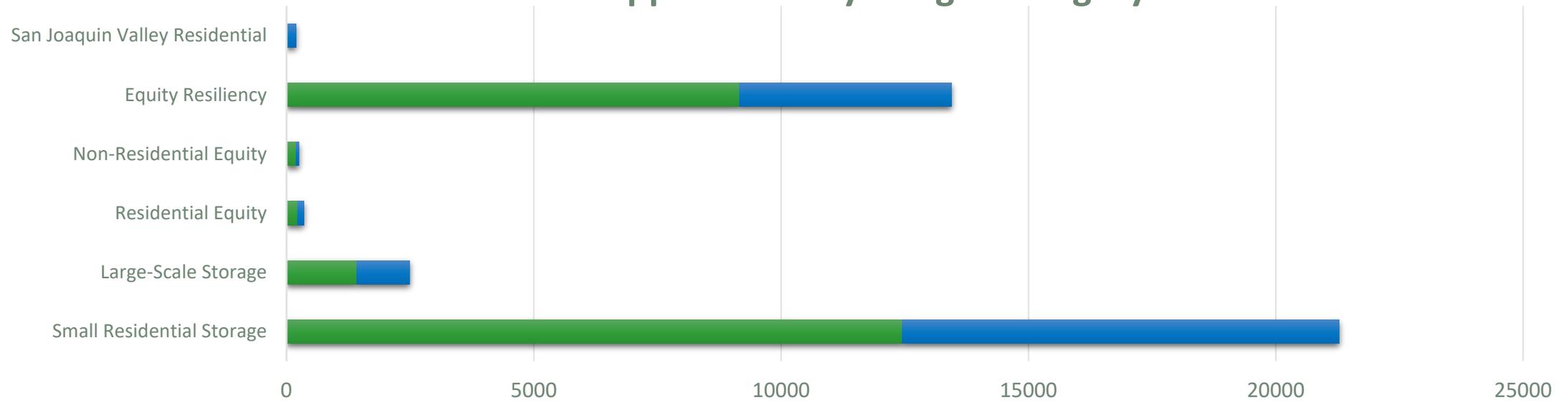
Applications by Program Year and Budget Category

Energy Storage Data 2020 – December 9, 2021



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Number of Applications by Budget Category



	Small Residential Storage	Large-Scale Storage	Residential Equity	Non-Residential Equity	Equity Resiliency	San Joaquin Valley Residential
■ 2020	12444	1421	229	200	9153	8
■ 2021	8838	1067	120	51	4284	186

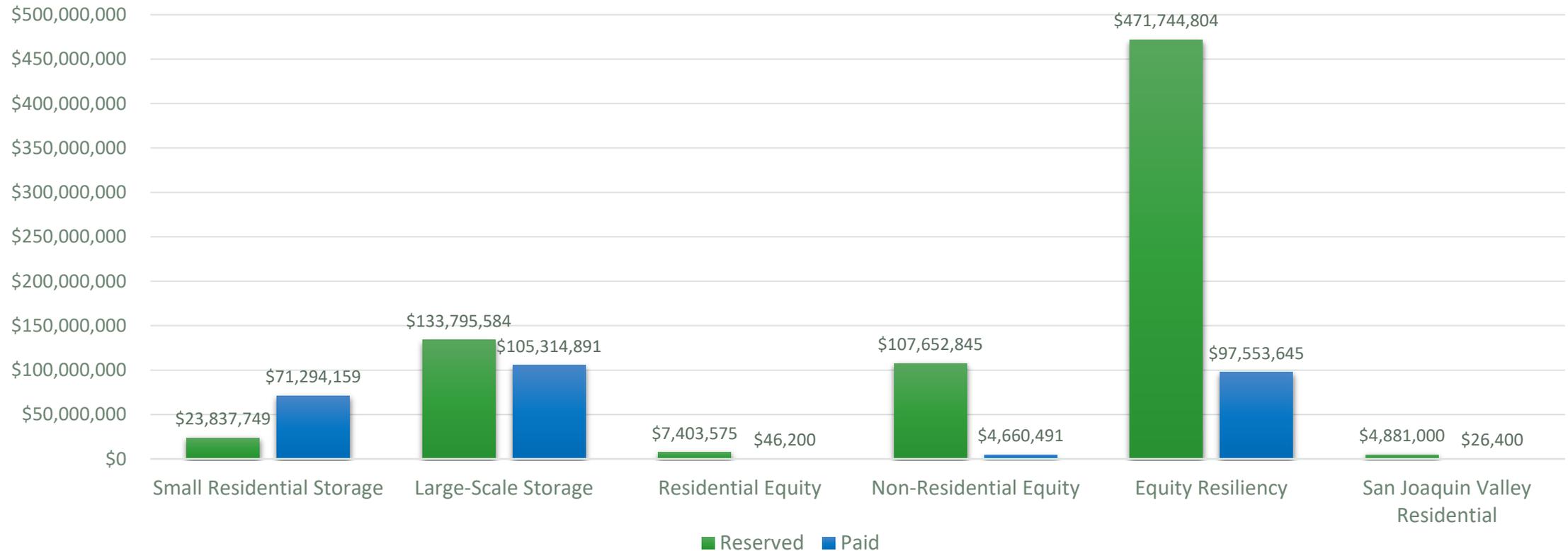
■ 2020 ■ 2021

Total Incentives Reserved and Paid

Energy Storage Data – December 9, 2021



Incentives Reserved and Paid by Budget Category



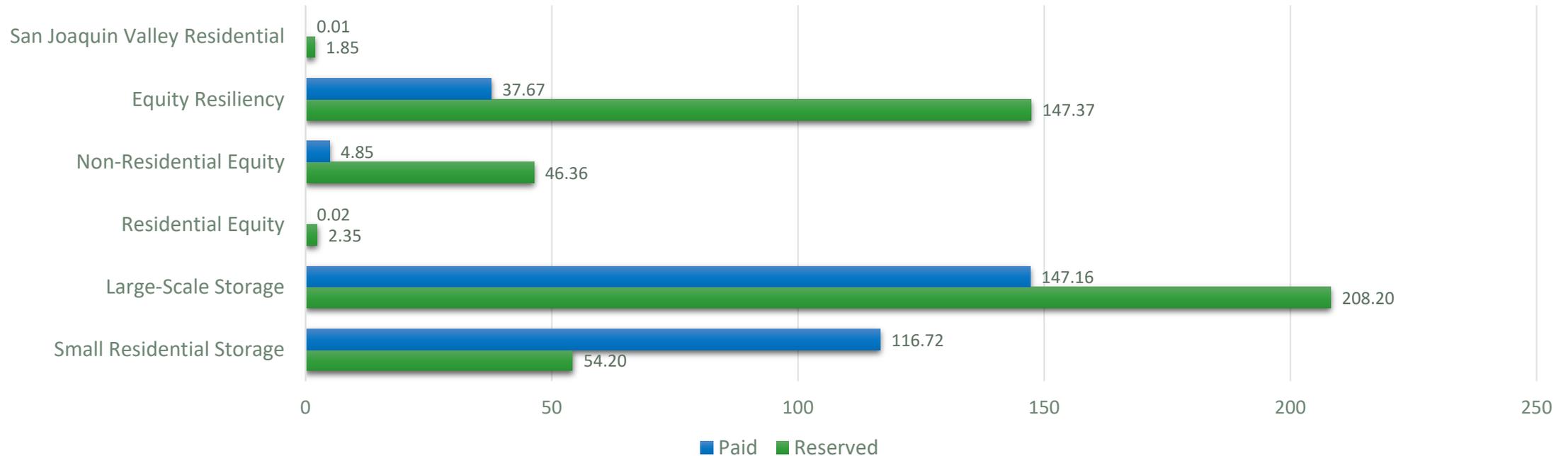
Total Capacity by Year and Budget Category

Energy Storage Data – December 9, 2021



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MW Reserved and Paid by Budget Category



Current Budget Status

Energy Storage – December 9, 2021



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Budget Category	CSE	SCE	SCG	PG&E
Large-Scale Storage	Step 3	Step 3	Step 3	Step 4
	Open	Closed	Open	Open
	\$0.35/Wh	\$0.35/Wh	\$0.35/Wh	\$0.30/Wh
With ITC	\$0.25/Wh	\$0.25/Wh	\$0.25/Wh	\$0.22/Wh
Available Funds	\$4,325,229.38	\$3,911,747.22	\$8,628,348.58	\$14,111,793.07
Small Residential Storage	Step 7	Step 6	Step 6	Step 7
	Open	Open	Open	Open
	\$0.15/Wh	\$0.20/Wh	\$0.20/Wh	\$0.15/Wh
Available Funds	\$1,487,484.61	\$1,919,636.97	\$640,176.46	\$6,522,734.98
Residential Storage Equity	Step 5	Step 5	Step 5	Step 5
	Open	Open	Open	Waitlist
	\$0.85/Wh	\$0.85/Wh	\$0.85/Wh	\$0.85/Wh
Available Funds	\$2,847,453.73	\$454,655.56	\$283,877.70	\$90,626.80
Non-Residential Storage Equity	Step 5	Step 5	Step 5	Step 5
	Waitlist	Waitlist	Waitlist	Waitlist
	\$0.85/Wh	\$0.85/Wh	\$0.85/Wh	\$0.85/Wh
Available Funds	\$1,503,179.44	\$1,535,940.97	\$792,017.90	\$1,189,247.23
Equity Resiliency	Step 5	Step 5	Step 5	Step 5
	Waitlist	Waitlist	Waitlist	Waitlist
	\$1.00/Wh	\$1.00/Wh	\$1.00/Wh	\$1.00/Wh
Available Funds	\$60,069.69	\$5,056.36	\$7,097.52	\$6,962.04
San Joaquin Valley Residential& Non-Residential		Step 5		Step 5
		Open/Open (non-res)		Closed/Open (non-res)
		\$1.00/Wh		\$1.00/Wh
Available Funds		\$4,777,400.00/\$120,000.00 non-res		\$48,800.00/\$120,000.00 non-res
Generation	Step 3	Step 3	Step 3	Step 3
	Open	Open	Open	Open
	\$2.00/W	\$2.00/W	\$2.00/W	\$2.00/W
Available Funds	\$14,850,941.55	\$31,397,796.80	\$10,310,281.87	\$40,904,613.82

CSE, SCE, SCG, PG&E have reached the 50% Residential Storage Soft Target Cap for Small Residential Storage Step 6

CSE has reached the 50% Residential Storage Soft Target Cap for Small Residential Storage Step 7

Program Metrics



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Questions?





Regulatory Updates

Ozzy Guzman, PG&E

Proposed Decision Allocating Accumulated Funds to Energy Storage Budgets

- Status: Reply Comments have been filed as of Dec. 6, 2021; possible Final Decision by Dec. 16, 2021.
- Proposed Decision orders PAs to “immediately allocate... accumulated unallocated funds...starting with waitlisted Equity Resiliency budget applications, if any, followed by Equity Budget applications prioritized by the date...waitlisted, if any, General Market Residential waitlisted applications, if any, and finally General Market Large Scale applications...”
- PAs are discussing implementation, working w/ Energy Solutions.

Measurement and Evaluation Plan

- Status: the M&E Plan was filed by PG&E on May 24, 2021 (Joint PA filing).
- Energy Division proposed modifications to the M&E plan.
- PG&E plans to file a Joint SGIP PA “Supplemental” Advice Letter incorporating the requested changes.

Regulatory Updates



Decision Revising SGIP Renewable Generation Technology Program Requirements (D.21-06-005)

- Status: As required by D.21-06-005, on September 2, 2021, PG&E filed the Joint SGIP PA Tier 2 Advice Letter (A.L.) to modify the program Handbook in many ways.
- PAs await the disposition of the A.L.– likely Q1 2022.
- PAs working with Energy Solutions on development for application process & changes; should be complete soon after disposition of the A.L.
- Should allow time for developers to build applications prior to ‘un-pause’.



Regulatory Updates



Proposal for SGIP Residential Price Cap in Accordance with D.19-09-027, OPs 7(g) and 8(a)

- Status: On March 16, 2021, PG&E filed the Joint Tier 2 A.L. addressing the feasibility of implementing a price cap on residential storage systems receiving SGIP Equity Budget incentives.
- PAs await the disposition of the A.L. – possibly Q1 2022.
- PAs conducted their own research and relied on Verdant’s analysis.
- PAs did not believe there is sufficient information to recommend a price cap at that time.



Regulatory Updates



Resolution E-5106; Large Thermal Energy Storage Incentive Calculations and Updates to Program Handbook

- On July 13, 2021 a Disposition Letter was issued approving the methodology to include L-TES into SGIP. However, rejected the supplemental filed to specify the amount of pre-installation data collection required.
- Status: On September 30th, 2021, SoCalGas re-filed the Joint SGIP PA Supplemental and on October 27th Replied to comments from California Energy Storage Alliance (CESA).
- SGIP PAs are awaiting disposition of A.L.; likely Q1 2022



Technical Working Group (TWG) Program Processing Improvements

- Status: On November 5, 2021, Southern California Edison (SCE) filed the Joint SGIP PA Advice Letter to propose application streamlining modifications to the SGIP Handbook.
- SGIP PAs are awaiting disposition of A.L.; possibly Q1 2022
- This Advice Letter will be discussed later in the presentation.

Regulatory Updates



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Questions?



SGIP GHG SIGNAL UPDATE

December 13, 2021



SGIP Signal Overview

- California Public Utility Commission (CPUC) Decision 19-08-001 directed development of a GHG Signal to assist storage technologies in optimizing their performance to reduce GHG emissions
- The integrated GHG emissions model must be updated to align with any changes to the most recent Avoided Cost Calculator (ACC).
- This update is to provide users an overview of upcoming changes to the API and a chance for any questions and comments

https://www.cpuc.ca.gov/uploadedFiles/CPUC_Public_Website/Content/Utilities_and_Industries/Energy/Energy_Programs/Demand_Side_Management/Customer_Gen_and_Storage/SGIP%20Advanced%20Energy%20Storage%20Impact%20Evaluation.pdf [A-11 (1184)]

<https://www.cpuc.ca.gov/general.aspx?id=5267>



How the Compliance Signal is Calculated

Compliance Signal

- The signal is calculated using the same open source heat rate-based methodology as in the most recent SGIP impact evaluation report, but with updated parameters and data sources more suitable for real-time use.
- This signal provides the marginal emissions per kWh calculated based on a natural gas-fired power plant producing energy at a price equaling the real-time (five-minute) CAISO Locational Marginal Price with costs equal to the most recent publicly available data on gas prices, CO2 prices, and variable operating costs constrained by reasonable minimum efficiencies.
- When the calculated heat rate is zero or below, it is assumed that the marginal generator is renewable, and thus the marginal emissions rate is zero.

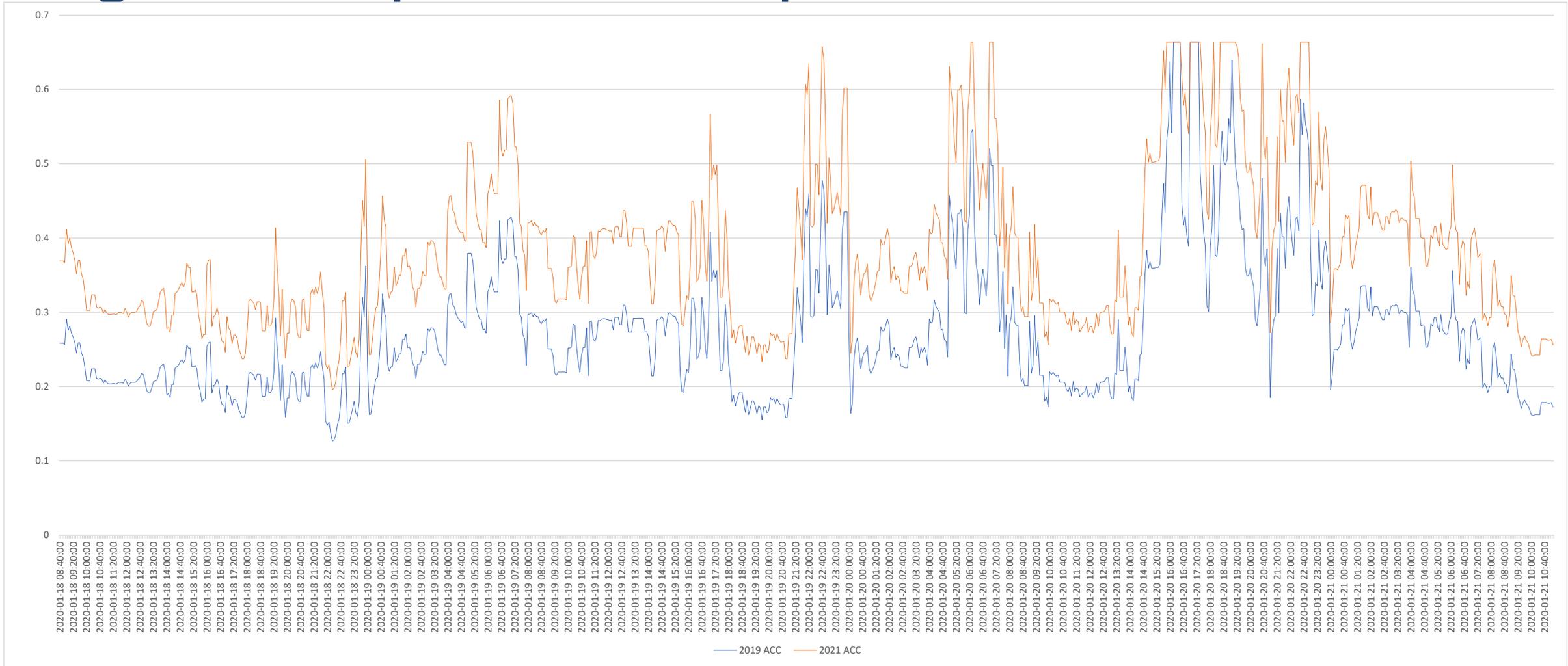
Changing Assumptions

- Natural gas transportation costs
- Variable Operating and Maintenance Cost

Unchanged Assumptions

- Maximum heat rate of low efficiency plant (12,500 btu/kWh)
- Minimum heat rate of high efficiency plant (0 btu/kWh)
- Emissions factor of natural gas (0.0531 metric tons CO₂/MMBtu)
- Electricity Market price, GHG price, Gas Price all derived from different sources [appropriate for real-time use]

Signal Comparison Sample



The new signal will change in magnitude, but the time varying features remain substantially similar.

Signal Delivery

- Starting immediately, both signals will be available through the API.
- By default the old signal will be delivered through the API.
- You will only receive the new signal if you specify a version number
- Starting **February 1, 2022** the old signal will be discontinued and the new signal will be delivered by default.
- All projects will be evaluated against the old version until **January 31, 2022** after which the new signal will be used to evaluate project performance and determine compliance with SGIP requirements.

Accessing the data

- The old signal uses version number “1.0” in /sgipmoer queries and “1.0-1.0.0” in /sgipforecast.
- The new signal uses version number “2.0” and forecast version number “2.0-1.0.0”.
- All of these details are reflected in the SGIP GHG signal [API documentation](#).

Thank You

SGIP@WattTime.org

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Executive Director

Henry Richardson

Senior Analyst

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415.300.7475





SGIP Software Support Team
Energy Solutions



Support Categories



Login Help



Revisions/Mistakes



App Status

Software Support Team FAQ

What we can help with:

Login Issues

- We cannot see passwords or set passwords for anyone
- Must have access to the registered email to reset a password
- Applicant admin left company, lost access?

Developer Key

- Requestor email address must match registered email
- Questions? Reach out to SCE

General Database Issues

Reach us at sgipsupport@energy-solution.com

What requests must go to your PA:

Editing an Application

General Application/Program Help

- Selfgenca.com -> Resources
- PA
- Handbook

Applicant Company and Developer Transfers

Note: Some of these requests are done by our team, but **must** come directly from a PA.

selfgen@pge.com
selfgeneration@socalgas.com
sgipgroup@sce.com
sgip@energycenter.org



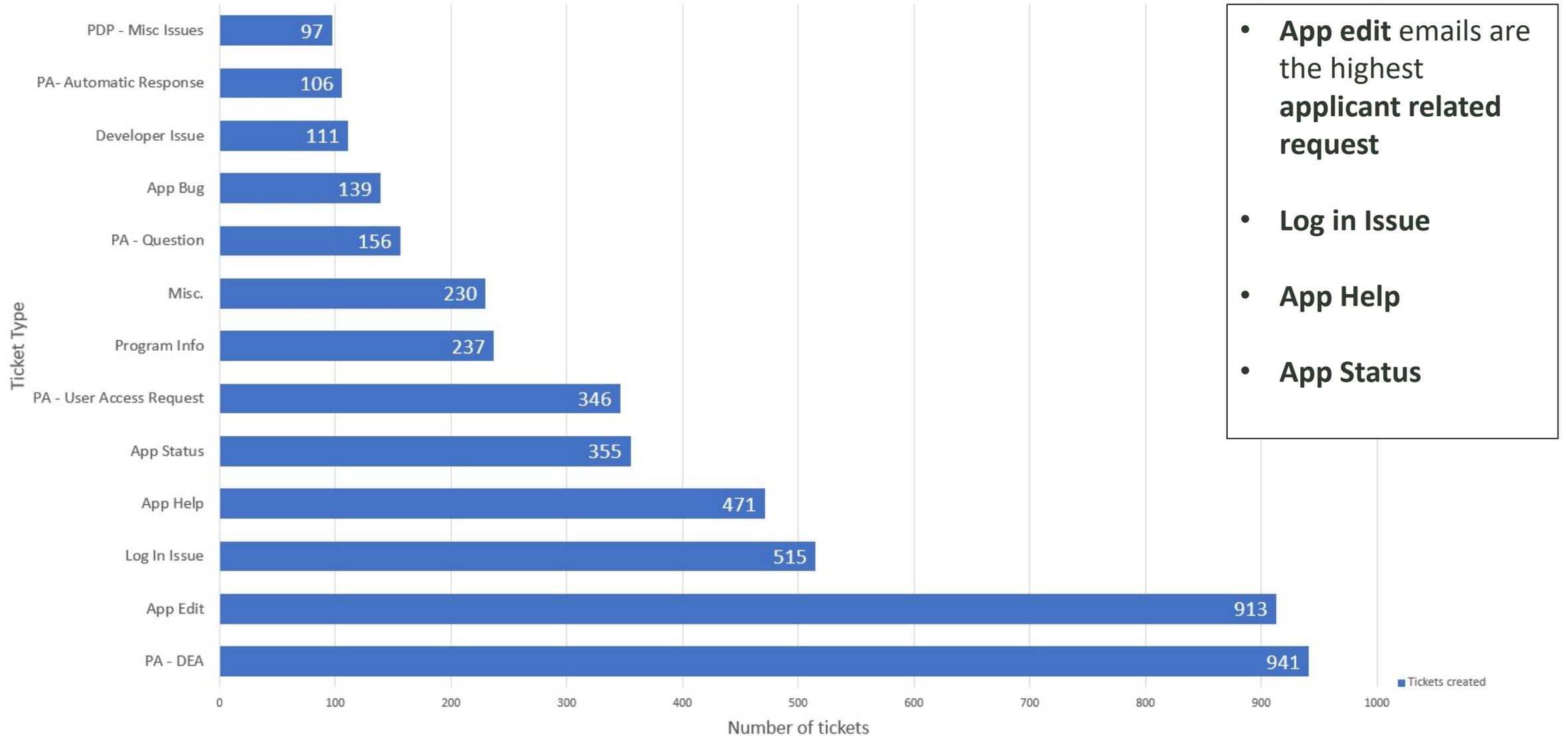
SGIP Support in 2021



	2020	2021	% Change
Total Received	2632	2444	-7.83%
Average Received per Month	219	202	



SGIP Support Ticket Type Frequency





Questions?



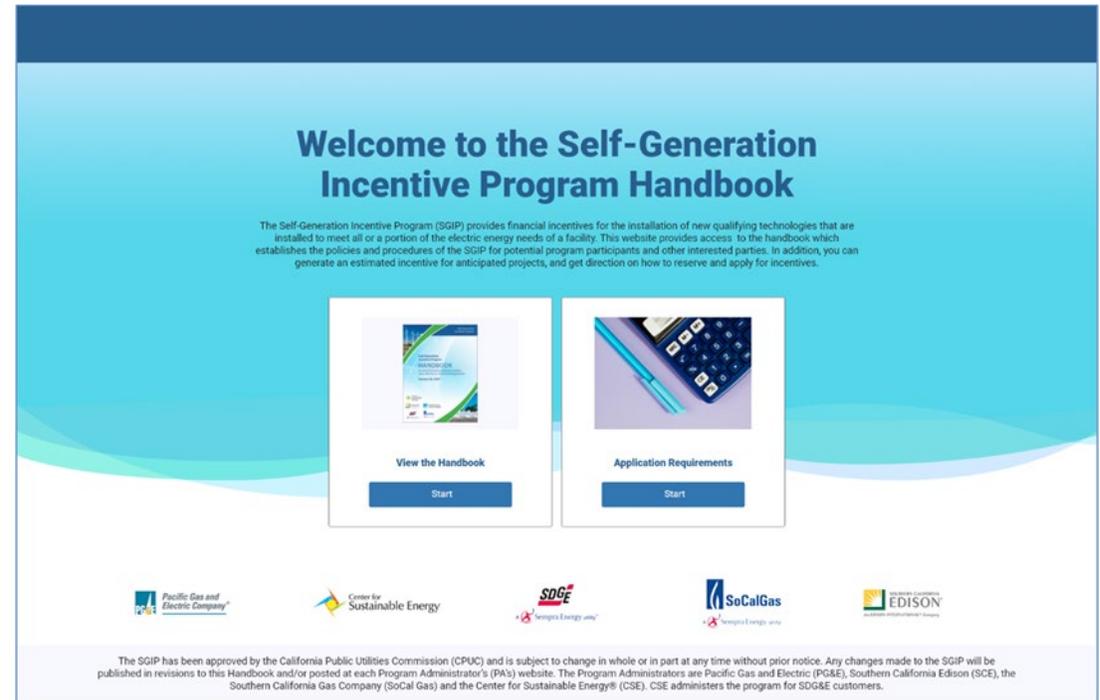
SGIP Handbook Redesign

Dara Salour, AESC

SGIP Handbook Redesign



- Streamline the existing handbook content for readability and comprehension
 - Reorganize the handbook based on the eight budget categories
- Move the handbook online and convert it to searchable text-based web page format
 - Upon selecting the applicable budget category, the user will then choose between energy storage and generation technologies
- Make the handbook interactive
 - Allows users to enter information about their location and project and receive guidance on application requirements and timelines



Searchable Online Handbook



- Users will be able to search for specific content using a search field which will look across all sections of the handbook, regardless of current section.
- Throughout the handbook, there will be links to relevant documents that reside on selfgenca.com.

A screenshot of the SGIP handbook website interface. The page has a dark blue header with two dropdown menus labeled "Budget Category" (set to "Large Scale Storage") and "Technology" (set to "Energy Storage"), followed by a search input field with a magnifying glass icon. On the left, a vertical navigation menu lists various sections, with "What's New Self Generation Incentive Program?" highlighted in light blue. The main content area displays the title "What's New Self Generation Incentive Program?" in bold, followed by a paragraph stating that the 2021 V2 Handbook has been updated. Below this, a bulleted list details the changes: "Added COVID-19 impacts language for Stay on Cancellations and PBI Pause to Calculations" (with a sub-bullet for "§2.6.3 Extension and Exceptions") and "Added D.21-03-008 and D.21-03-009 Summaries to Legislation and Regulatory Background". At the bottom of the page, a small disclaimer states that the SGIP is approved by the CPUC and is subject to change, and lists the participating utility companies and the administering organization, CSE.

Interactive Handbook Inputs



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Step 1
Tell us a little about your site.

Site Info

Street Address
Please enter an address.

City
Please select a state.

Zip Code
Please enter a zip code.

Save Next

The SGIP has been approved by the California Public Utilities Commission (CPUC) and is subject to change in whole or in part at any time without prior notice. Any changes made to the SGIP will be published in revisions to this Handbook and/or posted at each Program Administrator's (PA's) website. The Program Administrators are Pacific Gas and Electric (PG&E), Southern California Edison (SCE), the Southern California Gas Company (SoCal Gas) and the Center for Sustainable Energy® (CSE). CSE administers the program for SDG&E customers.

Step 2
Tell us a little about your project.

Project Type

Please choose the type of system you are seeking an incentive for.
Energy Storage

Please enter your system characteristics

Rated capacity of your system in kW
1,000

Energy capacity of your system in kWh
6,000

Discharge duration in hours
6

Estimated project costs
\$5,000,000

Save Next

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Interactive Handbook Results



- Results will show:
 - Budget pathway
 - Program Administrator for your project
 - Information about the system (per user input)
 - Listing of application requirements
 - Links to required documents on selfgenca.com
 - Links to relevant chapter sections in the handbook

Results

Your Budget Pathway

Energy Storage [Read the Handbook Section](#)

More info

You are currently at incentive step: **3** Your Program Administrator: **SCE**

System Rated Capacity	Duration of Discharge
1,000 kW	6 hours
Energy Storage Capacity	Estimated Project Cost
6,000 kWh	\$6,000,000

How to submit an application.

This incentive is an estimate only and funds have not been reserved for your project. To reserve your funds you will need to complete and provide the documents below. Click on the SGP Handbook sections below for a more detailed description of each item.

Reservation Request Form

- Completed Reservation Request Form
- Application Fee
- Equipment Specifications (All technologies not currently on the SGP Energy Storage Equipment List)
- Proof of Utility Services' Load Documentation
- Preliminary Monitoring Plan

Proof of Project Milestone Documents

- Completed Proof of Project Milestone Form
- Copy of RFP or equivalent after 90 days (Public Entity Projects Only)
- Copy of Executed Contract or Agreement for Installation

Incentive Claim Form Documents

- Completed Incentive Claim Form
- Proof of Authorization to Interconnect (Projects that interconnect with the electrical grid)
- Building Permit Inspection Report
- Substitutions:
 - New Construction or Expanded Lead,
 - Equipment purchased after 2021, and
 - VMEM Projects
- Final Monitoring Schematic
- Incentive Claim Form Documents

To submit your application, go to: www.selfgenca.com

Application Process Timelines

- Reservation request: upon review and approval of applicant documentation, program issues conditional reservation letter
- Proof of project milestone: applicant to provide documents within 90 calendar days of conditional reservation date for non-public entities, 240 calendar days for public entities
- Incentive claim: applicant to provide documents within 18 months of the conditional reservation date

Back Download Save

The SGP has been approved by the California Public Utilities Commission (CPUC) and is subject to change in whole or in part at any time without prior notice. Any changes made to the SGP will be published in revisions to this Handbook and/or posted at each Program Administrator's (PA's) website. The Program Administrators are Pacific Gas and Electric (PG&E), Southern California Edison (SCE), Southern California Gas Company (SoCal Gas) and the Center for Sustainable Energy (CSE). CSE administers the program for SGP&E customers.



SGIP Handbook Redesign



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Questions?





SGIP Streamlining Advice Letter

Jim Stevenson, SCE

Streamlining Advice Letter



- **Removal of the Proof of Project Milestone signature requirement**
 - For projects where there has been no change from the information presented on the RRF, the applicant can forego the execution (collecting signatures from all parties) of a duplicative PPM Form. – Only submit remaining required documentation.
 - If changes to the project since the Conditional Reservation, the applicant must complete and execute the PPM Form.
- **Removal of requirement to submit utility bill in PG&E's territory**
 - During RRF review PG&E can access their internal billing system to verify the Host Customer is the utility customer of record.
 - PG&E has identified that the utility bill is no longer necessary within its program territory.
 - Customers applying in the SCE, CSE and SoCalGas program territories are required to submit a copy of the utility bill.



Streamlining Advice Letter



- **Removal of requirement to submit Permission to Operate (PTO) Letter in PG&E's territory**
 - Procedures have been identified within PG&E has updated procedures that would enable it to verify interconnection through its internal interconnection system.
 - Eliminates the requirement for PGE customers to submit a separate copy of the PTO letter at ICF
 - Customers applying in the SCE, CSE and SoCalGas program territories are required to submit a copy of the PTO letter.



Streamlining Advice Letter



- **Updated language to indicate compliance with current Contractors State License Board (CSLB) licensing requirements**
 - The SGIP PAs defer to the CSLB to determine the appropriate contractor license types for each SGIP-eligible technology.
 - Presently, the Handbook lists the individual license types for each eligible technology.
 - To accommodate new technologies incorporated into the program and make certain there is alignment with the appropriate regulating agency, the SGIP PAs propose to update the Handbook to indicate compliance with current CSLB licensing requirements.
 - The PAs will provide a list of currently accepted licenses and the associated eligible technologies on selfgenca.com.



Streamlining Advice Letter



- **The correction for interval data parameters in the energy storage inspection and discharge testing protocol.**
 - To correct error related to the minimum interval requirements of this data.
 - PAs propose a correction to identify that data collected can be in no greater than 15-minute intervals and no less than 1-minute intervals.
 - Energy Storage Post-Installation Inspection and Discharge Testing Protocol – (Updated)

SGIP Streamlining Advice Letter



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Questions?





Streamlining Topics

Jason Legner, SCG

Residential Topics



#1: Utility Bill Not Required

- **Status:** Near completion
- PG&E territory only
- Awaiting CPUC disposition to Advice Letter for Handbook update

#2: Proof of Authorization to Interconnect

- **Status:** Near completion
- PG&E territory only
- Awaiting CPUC disposition to Advice Letter for Handbook update

Non-Residential Topics



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#1: Remove PPM Signature

- **Status:** Near completion
- Awaiting CPUC disposition to Advice Letter for Handbook update
- Database deliverables
Timeline expected: Early 2022

#2: PBI Process

- **Status:** In queue for database deliverables
- Requires Energy Solutions development
- Areas of improvement are for bulk uploading of PBI files and PDP reporting capabilities
- Database deliverables
Timeline expected: Early 2022

#3: Handbook Redesign

- **Status:** In process
- Handbook is currently being revised to streamline content and identify areas needing clarification
- There will be an online interactive version and a PDF version for users
- Expected deliverable: Early 2022

#4: Publish Educational Resources

- **Status:** Pending HB Redesign
- PAs to determine any additional resources necessary to not covered in redesign
- Examples:
 - How to apply for a 2-Step Application
 - How to apply for a 3-step application
 - FAQs

#5: Program Eligibility Clarifications

- **Status:** Pending HB Redesign
- PAs to determine resources necessary not covered in redesign
- PAs to develop ad hoc documents as reference to be posted on selfgenca.com

SGIP Streamlining Advice Letter



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Questions?



Streamlining TWG



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Open Forum

Proposals from Stakeholders



Streamlining TWG



- Topics from Industry:
 - AHJ approved plans for projects claiming resiliency benefits
 - Applicant editing of Host Customer names, project sites, and utility information
 - Inspection notifications



Closing



Thank you for attending today's workshop!
The PAs can be reached at the contact information listed below:

Pacific Gas and Electric Company selfgen@pge.com

Southern California Edison: SGIPGroup@sce.com

Center for Sustainable Energy sgip@energycenter.org

SoCalGas selfgeneration@socalgas.com