SELF-GENERATION INCENTIVE PROGRAM

SGIP 1st Quarterly Workshop of 2024

March 29, 2024

Southern California Edison An Edison International Company

Pacific Gas and Electric Company

SoCalGas

Center for Sustainable Energy

Introduction

SELF-GENERATION INCENTIVE PROGRAM

PROGRAM ADMINISTRATORS

SCE:

- Jim Stevenson
- Vicky Velazquez

SoCalGas:

- Jason Legner
- Laura Diaz
- Adrian Martinez
- Ashley Pezikian
- Jan Santos
- Sandi Linares-Plimpton

CSE:

- Shalene Watanabe-O'Toole
- Jess Hilton

PG&E:

- Ron Moreno
- Brian Bishop
- Ozzy Guzman
- Jacklin Campos-Perez

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Introduction (continued)

SELF-GENERATION INCENTIVE PROGRAM

AESC (Technical)

- Dara Salour
- Stephanie Raya

Verdant

- Brian McAuley
- William Marin

Energy Division (CPUC)

- Justin Galle
- Gabriel Petlin
- Fang Yu Hu

Energy Solutions

- Kelsey Albers
- Alejandro Prieto

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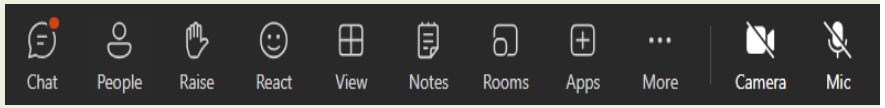
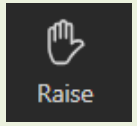
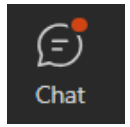
Center for Sustainable Energy

Teams Meeting

SELF-GENERATION INCENTIVE PROGRAM

Function	Teams Icon
Controls	
Mute – *Remain muted unless called on*	
Raise Your Hand – *Wait until you are confirmed to speak on the chat or host*	
Type Your Question or Comment	

Agenda

SELF-GENERATION INCENTIVE PROGRAM

- Safety (ED) 9:05 – 9:10
- Welcome and Introductions (PGE) 9:10 – 9:15
- M&E (Verdant) 9:15 – 9:40
- Program Metrics (PGE) 9:40 – 9:50
- Phishing Email (SCG) 9:50 – 10:00
- General Q&A 10:00 – 10:10
- Break 10:10 – 10:20
- AB209 (ED) 10:20 – 10:40
- AB209 Q&A 10:40 – 1:00

2021-2022 SGIP IMPACTS EVALUATION

Overview of Results

VERDANT

AGENDA

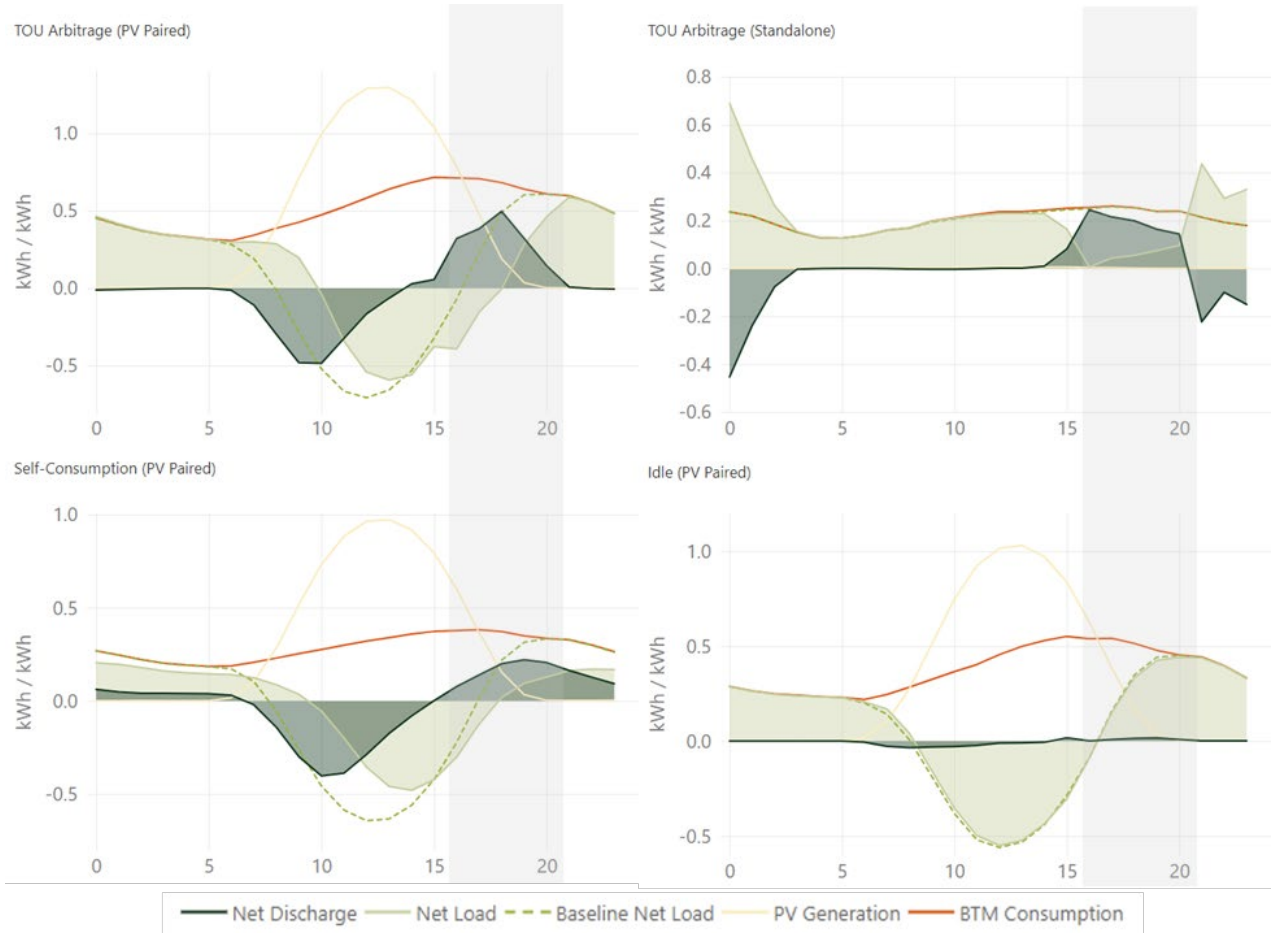
- Discuss findings, conclusions and recommendations from 2021-2022 SGIP Impacts Evaluation
- Study covered two years of analysis
  - 2022 impacts the focus of this presentation
  - 2021 SGIP population impacts provided, where applicable
- Presentation will be electrochemical energy storage focused (mostly residential)
  - Evaluation also covered the nonresidential energy storage sector
  - Evaluation also covers observed impacts from generation technologies
- Final draft report has been submitted to CPUC

ENERGY STORAGE DISCHARGE PATTERNS

Residential Operating Modes

» Clockwise from Top Left

- **TOU arbitrage –** PV Paired systems charge from solar
- **TOU arbitrage –** Standalone systems charge at night
- **Backup –** Idle exhibits under-utilization
- **Self-consumption –** limits delivered load from utility



ENERGY STORAGE DISCHARGE PATTERNS

Residential PV Paired and Standalone

- PV paired systems charging almost exclusively from solar (some exceptions in 2022)
- Max avg hourly discharge ~6-7% of kWh capacity
- Standalone systems exhibit similar discharge pattern (lower magnitude)
- Charging occurs overnight

PV Paired	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
January	1%	0%	0%	0%	0%	0%	0%	-0%	-2%	-5%	-6%	-6%	-5%	-3%	-1%	0%	3%	4%	5%	4%	3%	1%	1%	1%
February	1%	1%	0%	0%	0%	0%	1%	-1%	-4%	-7%	-8%	-7%	-5%	-3%	-1%	0%	2%	4%	5%	5%	4%	2%	2%	1%
March	1%	1%	1%	1%	1%	1%	1%	-0%	-4%	-7%	-9%	-8%	-6%	-4%	-1%	-0%	2%	4%	5%	5%	4%	3%	2%	2%
April	2%	1%	1%	1%	1%	1%	1%	-1%	-4%	-8%	-10%	-8%	-5%	-3%	-1%	0%	2%	3%	5%	5%	4%	3%	3%	2%
May	2%	1%	1%	1%	1%	1%	1%	-1%	-5%	-9%	-10%	-8%	-5%	-3%	-1%	0%	2%	3%	5%	5%	5%	3%	3%	2%
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December	-0%	-0%	-0%	0%	0%	0%	0%	-0%	-2%	-5%	-6%	-6%	-5%	-3%	-1%	1%	4%	5%	5%	3%	2%	1%	1%	0%

No PV	0	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
January	-3%	-2%	-1%	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%	0%	1%	1%	1%	2%	2%	1%	-1%	-1%	-1%
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August	-9%	-6%	-3%	-0%	-0%	-0%	-0%	0%	-0%	-0%	-0%	-0%	-0%	-0%	0%	1%	4%	4%	4%	3%	3%	-0%	-1%	-1%
September	-10%	-6%	-3%	-0%	-0%	-0%	0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%	0%	1%	4%	4%	4%	3%	3%	-0%	-0%	-1%
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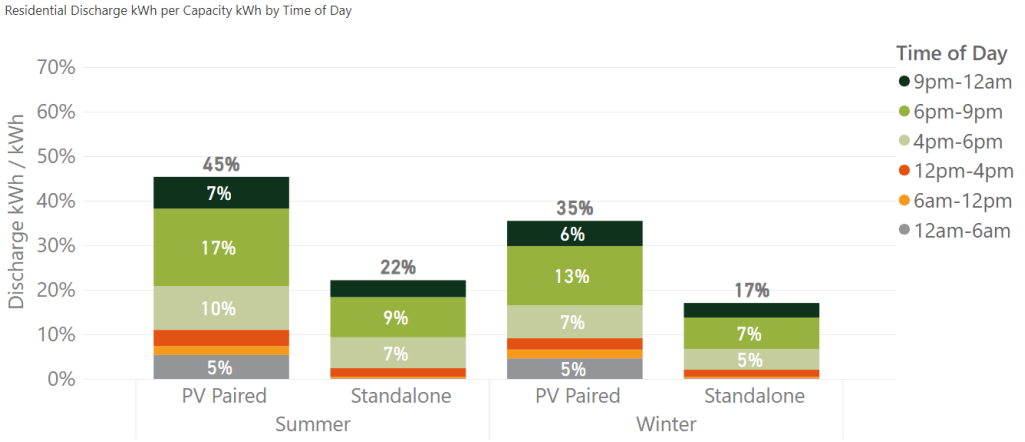
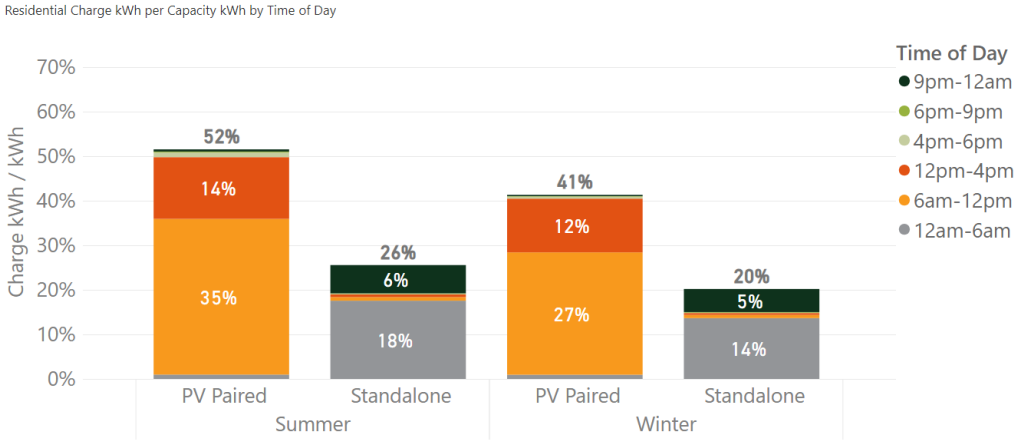
November	-10%	-6%	-3%	-0%	-0%	-0%	0%	-0%	-0%	-0%	-0%	-0%	-0%	0%	0%	1%	3%	3%	3%	3%	3%	0%	0%	-1%
December	-11%	-8%	-4%	-0%	-0%	-0%	0%	-0%	-0%	-0%	-0%	-0%	-0%	-0%	0%	1%	4%	4%	4%	4%	3%	-0%	0%	-1%

ENERGY STORAGE UTILIZATION

Timing and Magnitude of Discharge and Charge in the Residential Sector

- **Discharge (kWh / kWh capacity)**
  - PV Paired utilized ~45% of battery capacity daily in Summer
  - Most discharge comes between 4-9pm
  - Standalone utilized ~22%
- **Charge (kWh / kWh capacity)**
  - PV Paired almost exclusively charge from on-site solar
  - Standalone charges after on-peak and overnight

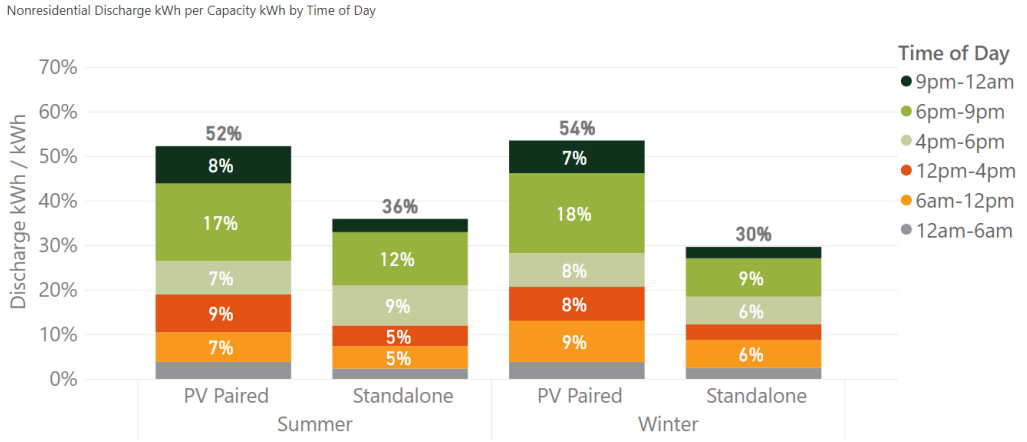


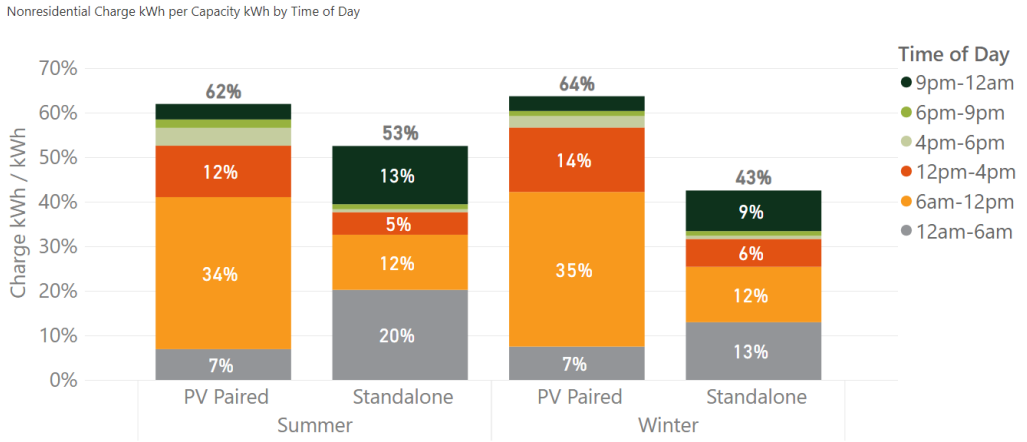


ENERGY STORAGE UTILIZATION

Timing and Magnitude of Discharge and Charge in the Nonresidential Sector

- **Discharge (kWh / kWh capacity)**
  - PV Paired utilized ~52% of battery capacity daily in Summer
  - Discharging across many hours
- **Charge (kWh / kWh capacity)**
  - More heterogeneity in charge timing, particularly for standalone systems

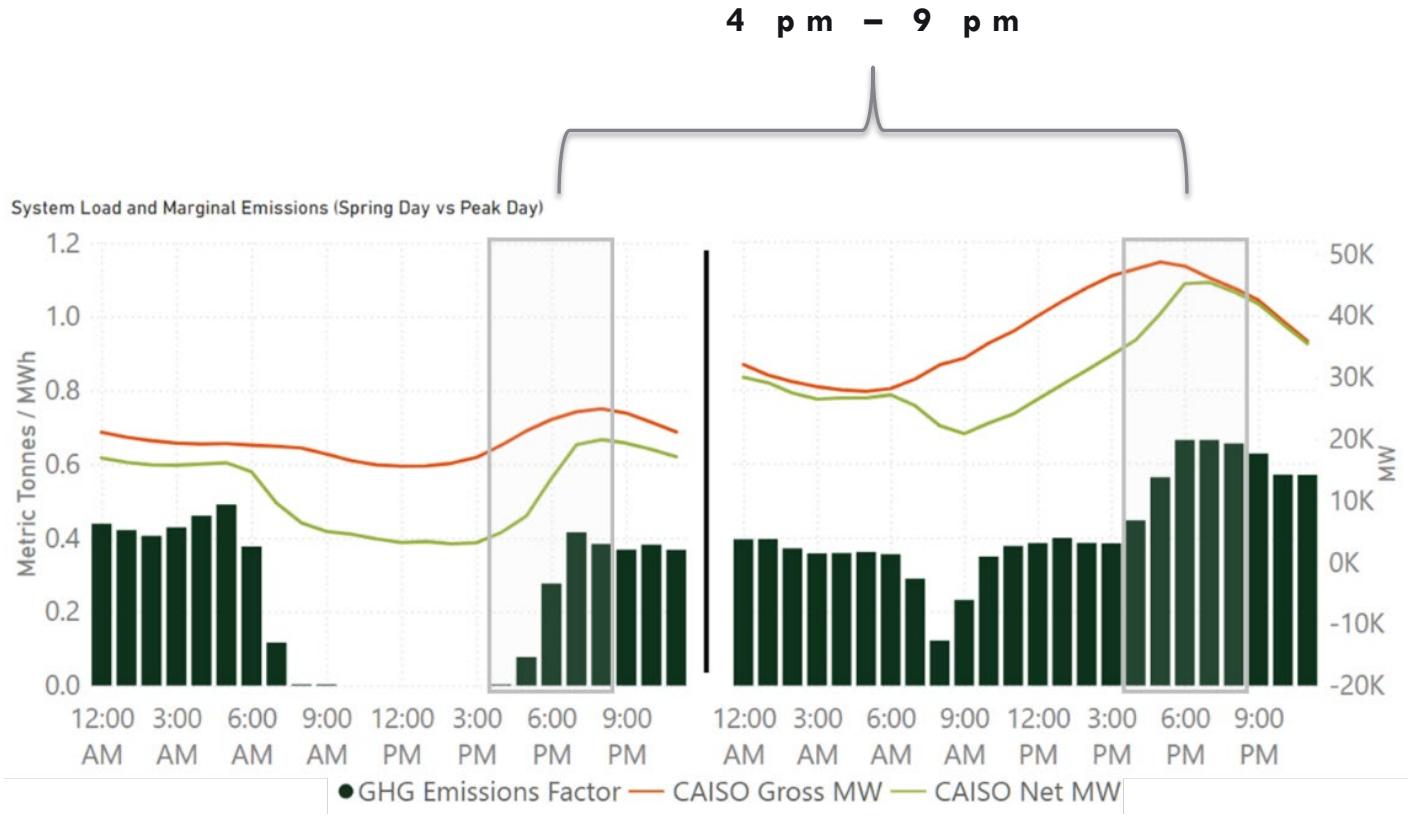




GHG EMISSIONS AND CAISO SYSTEM LOAD

Spring Day vs Peak Day Comparison

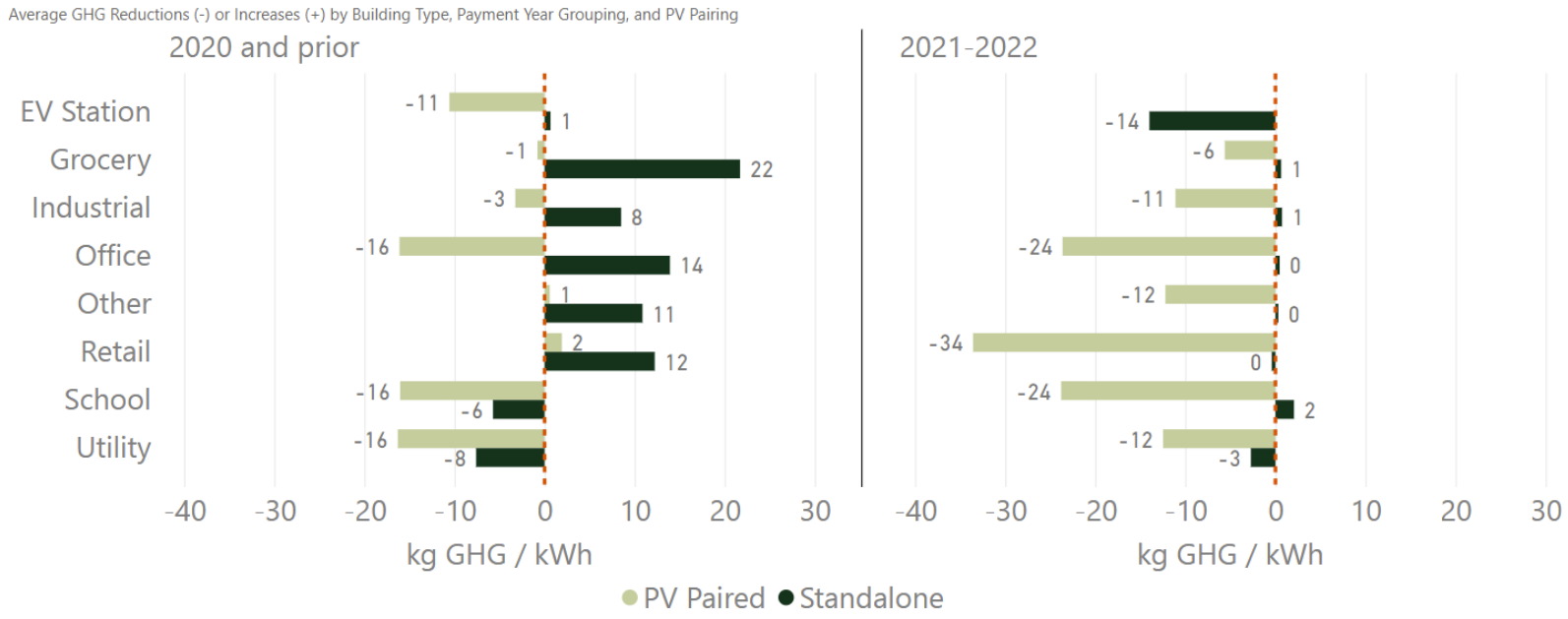
- Marginal emissions zero during several morning/midday hours on Spring day
- Greater magnitude of system load on Peak day
- Emissions ramp as Net load ramps
- Emissions greatest from 6 pm – 9 pm on Peak Day



GREENHOUSE GAS EMISSIONS

Nonresidential by Facility Type, PV Pairing, and Upfront Payment Year

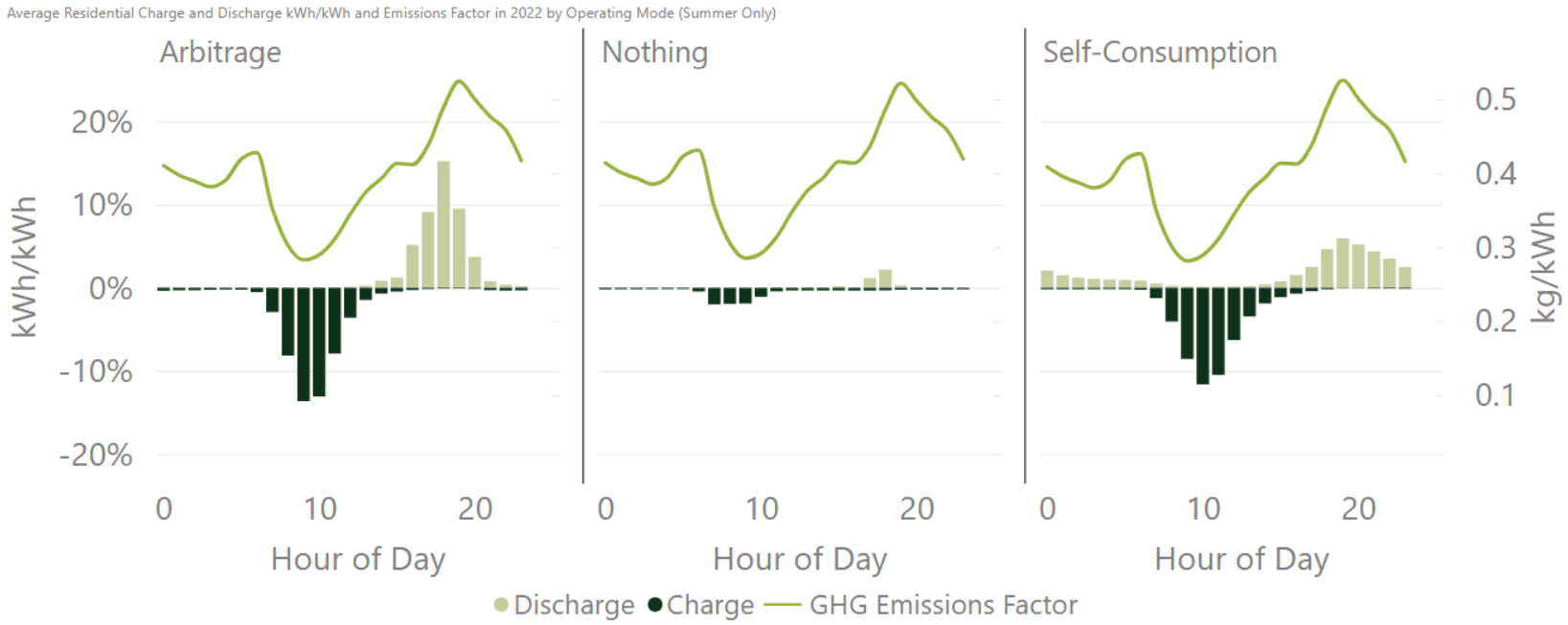
- PV paired segments decreased emissions in 2022
- Newer (2021-2022) standalone installations reducing emissions



GREENHOUSE GAS EMISSIONS

Residential by Operating Mode

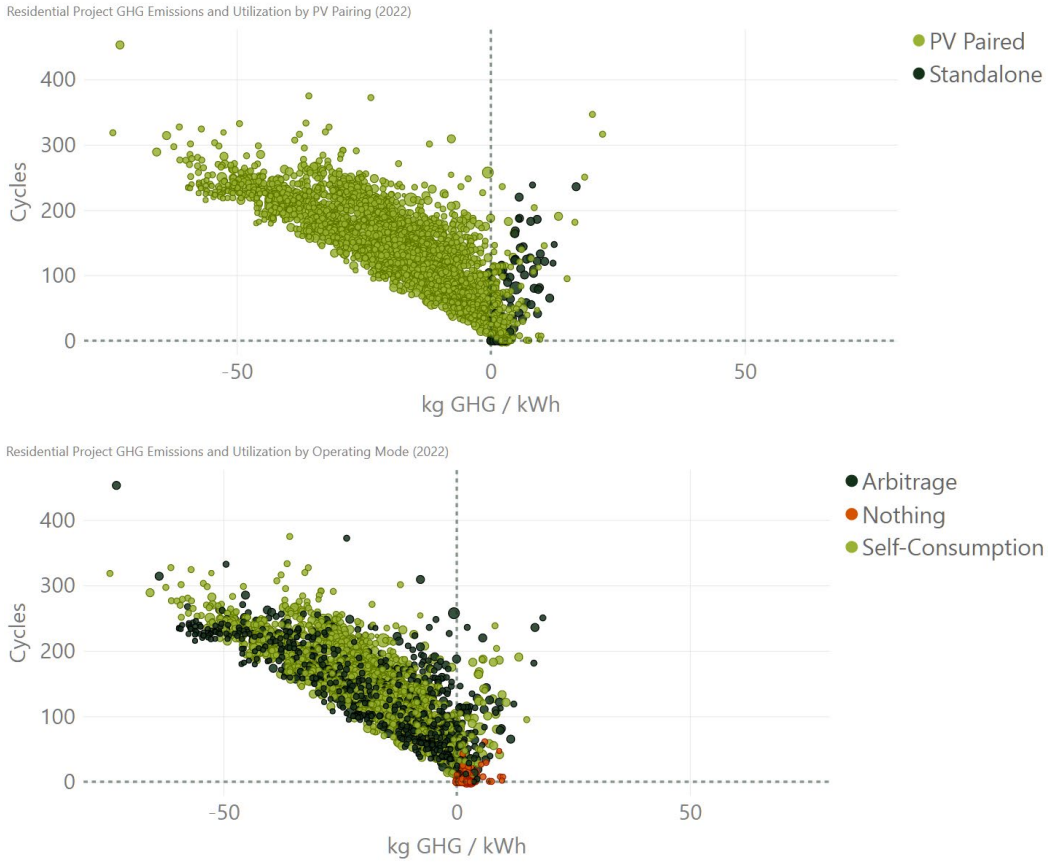
- ~4% of residential systems idle or under-utilized in 2022
- Discharging extends outside peak hours with self-consumption



GREENHOUSE GAS EMISSIONS

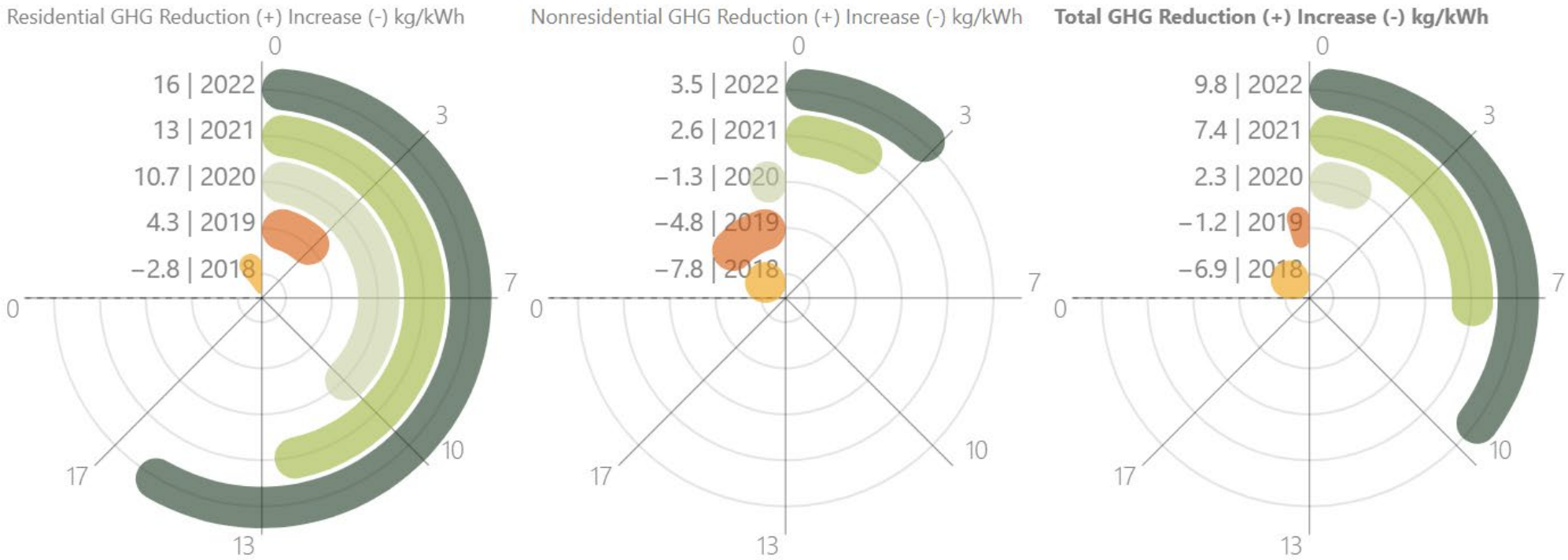
Residential Project Emissions by PV Pairing and Operating Mode

- Correlation between GHG emissions reductions and greater utilization
- Standalone storage charges overnight and increases emissions slightly
- Solar PV charging critical to emissions reductions
- Idle systems contribute to emissions increases



GREENHOUSE GAS EMISSIONS IMPACTS (2018-2022)

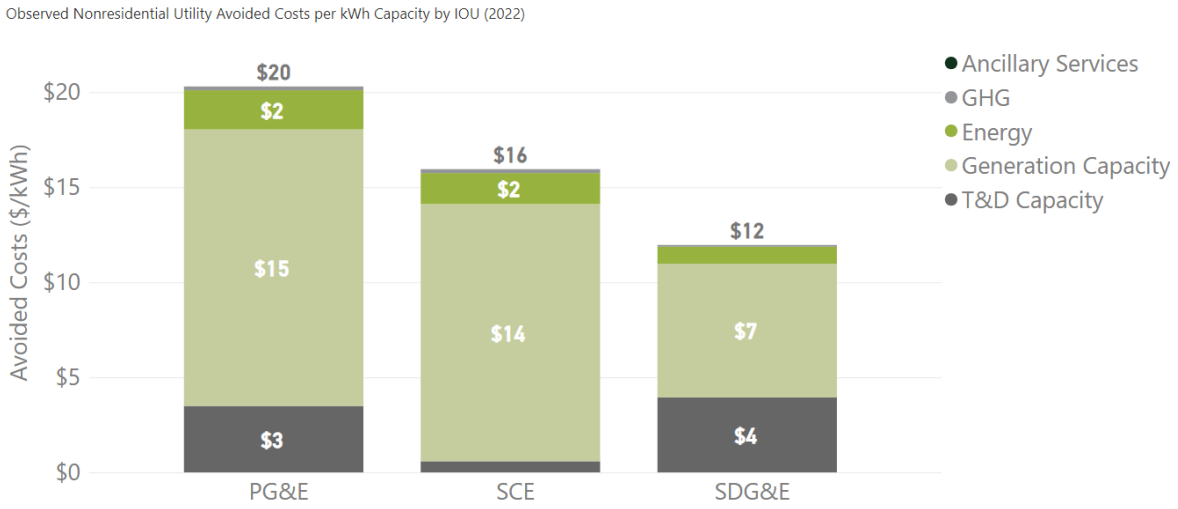
Energy Storage (Per Unit kg/kWh)



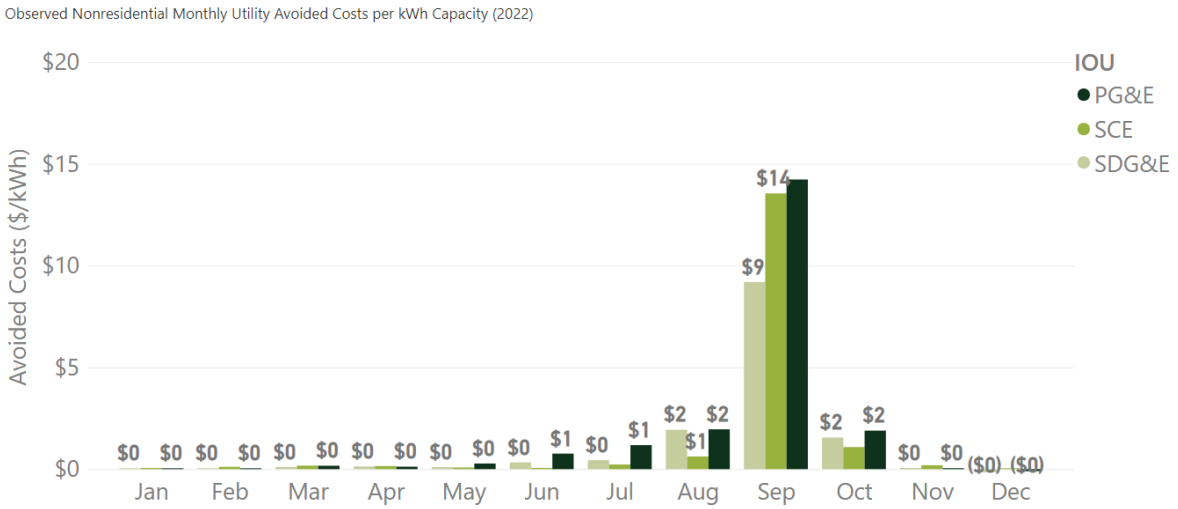
UTILITY AVOIDED COSTS

Nonresidential Average Avoided Costs by Electric IOU and by Month

Average Annual $/kWh



Average Monthly $/kWh



UTILITY AVOIDED COSTS

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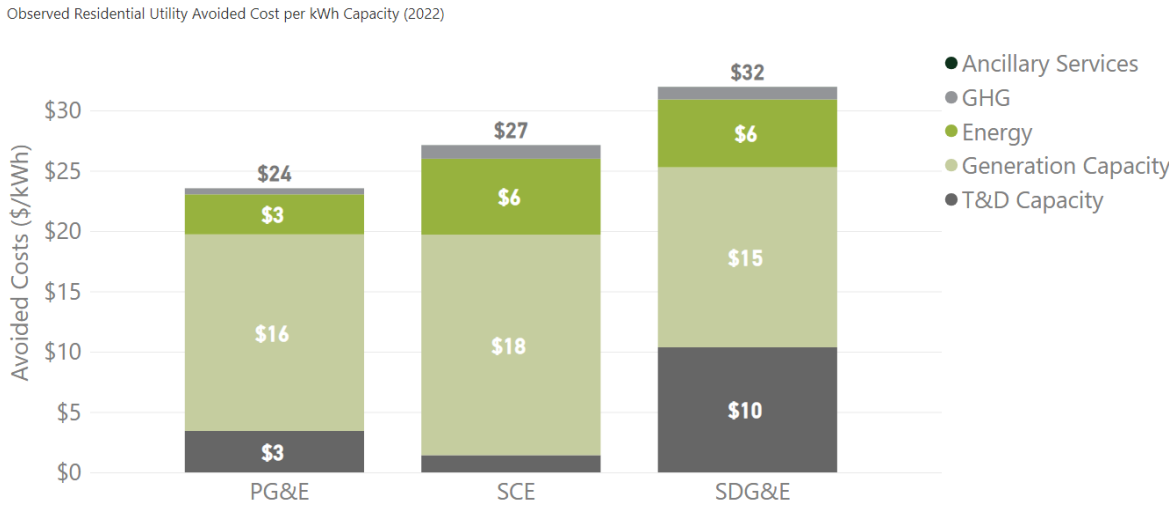
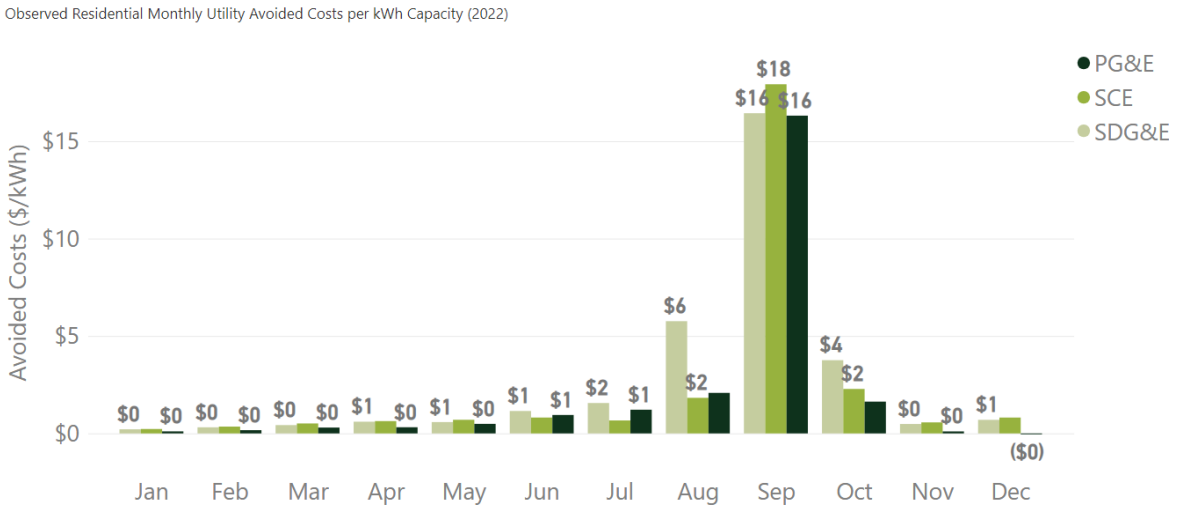
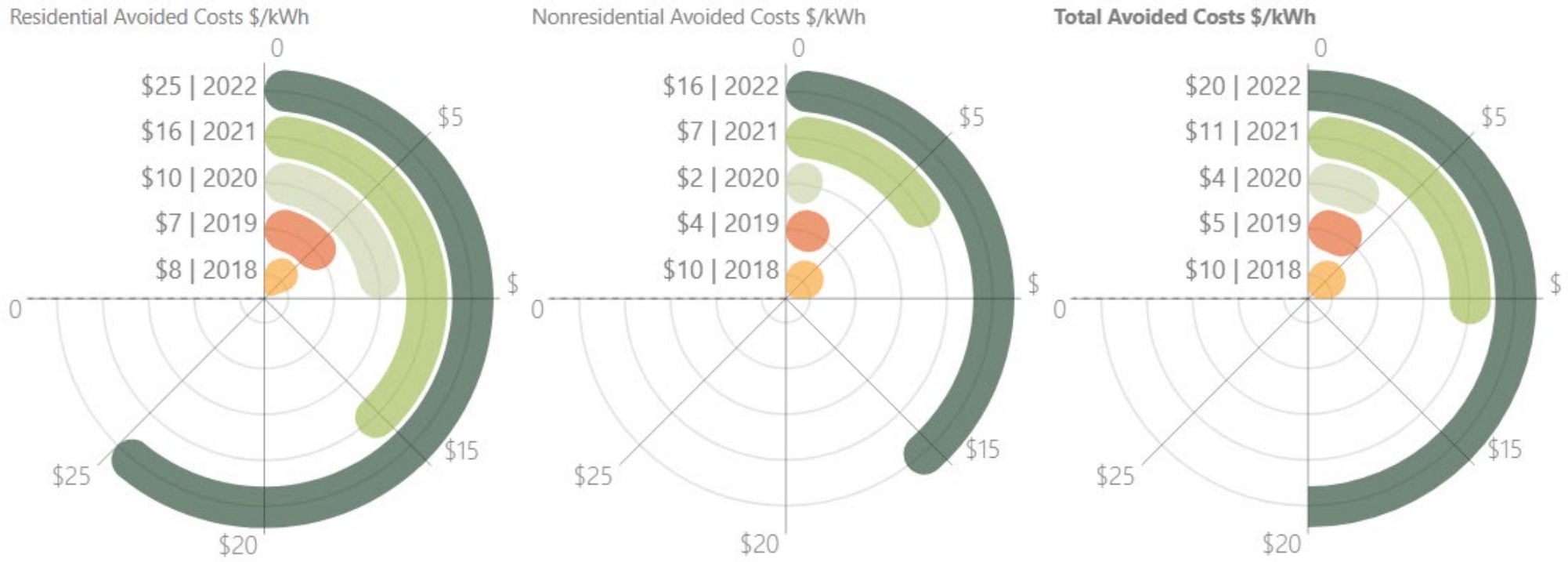


Average Monthly $/kWh



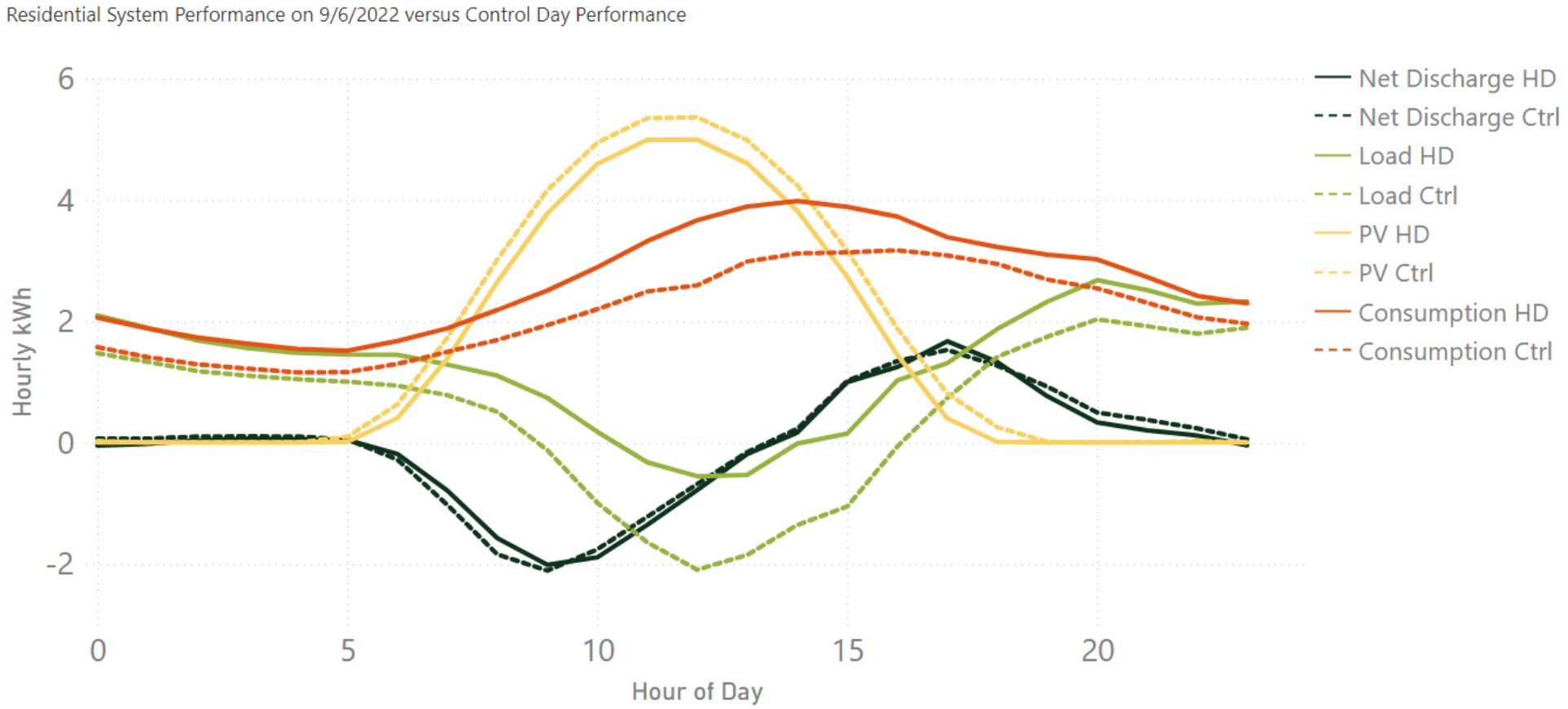
UTILITY AVOIDED COSTS (2018–2022)

Energy Storage (Per Unit $/kWh Capacity)



CAISO SYSTEM LOAD

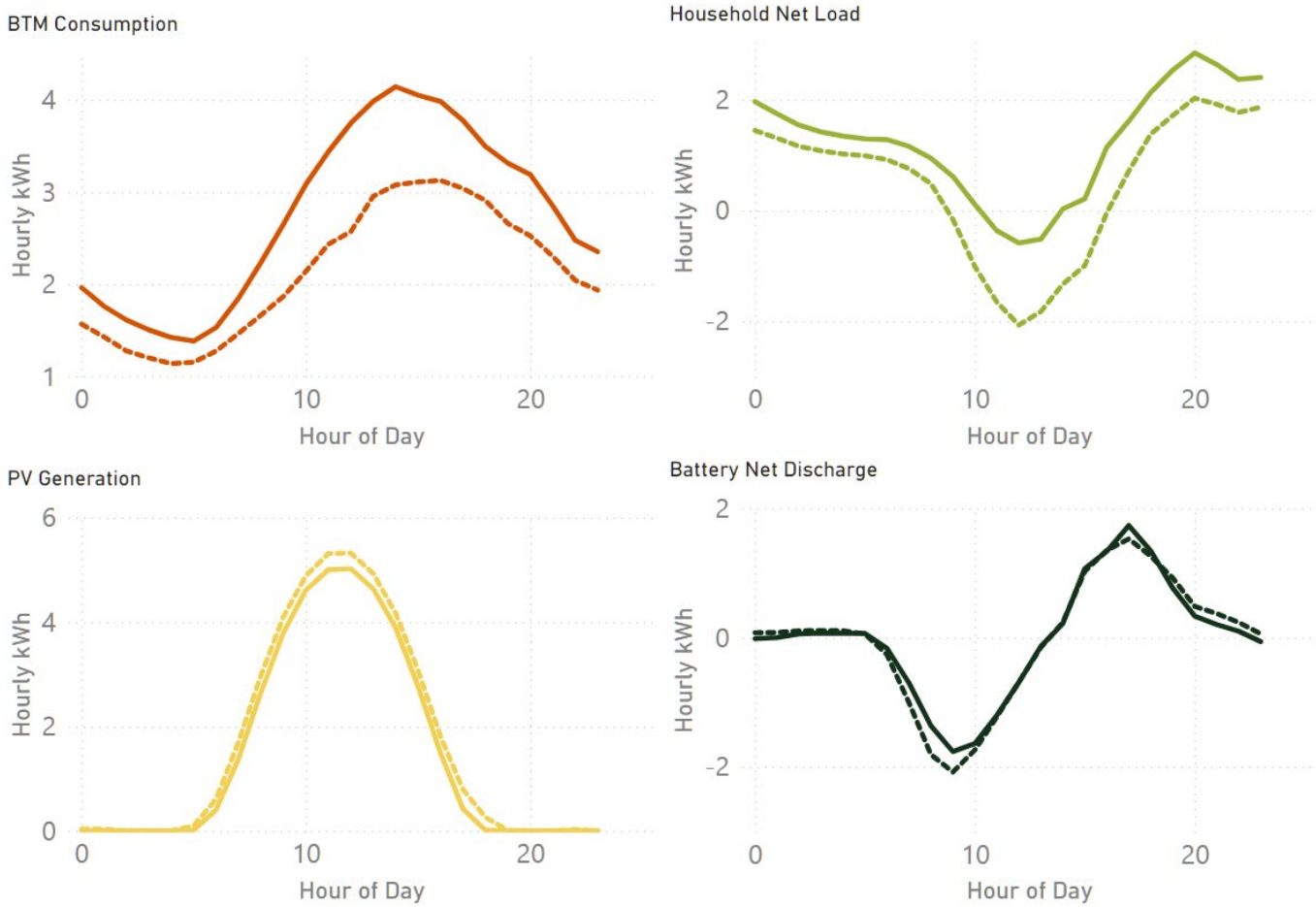
Heat Dome Incremental Storage Utilization



CAISO SYSTEM LOAD

Heat Dome Incremental Storage Utilization

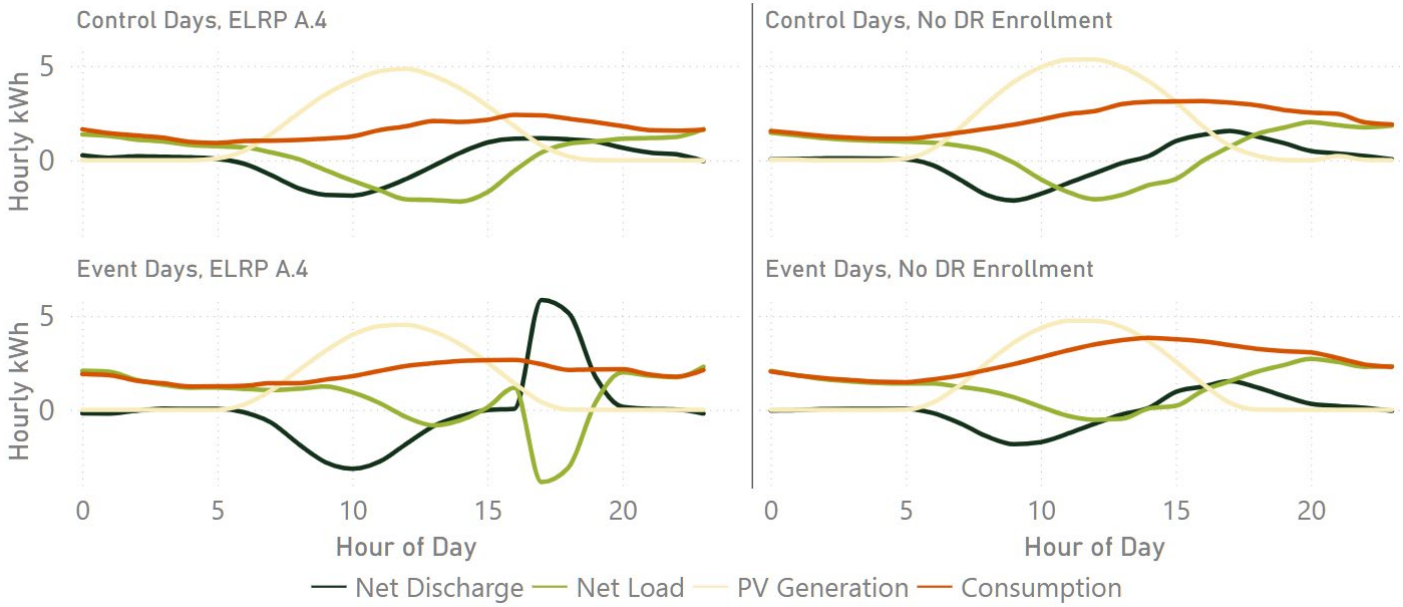
- Dashed line are control days
- Solid lines are observed performance throughout Heat Dome days
- Increased BTM consumption (red) during Heat Dome, increased utility delivered load and less export (green)
- **Almost identical storage utilization**



CAISO SYSTEM LOAD

Heat Dome ELRP Incremental Storage Utilization

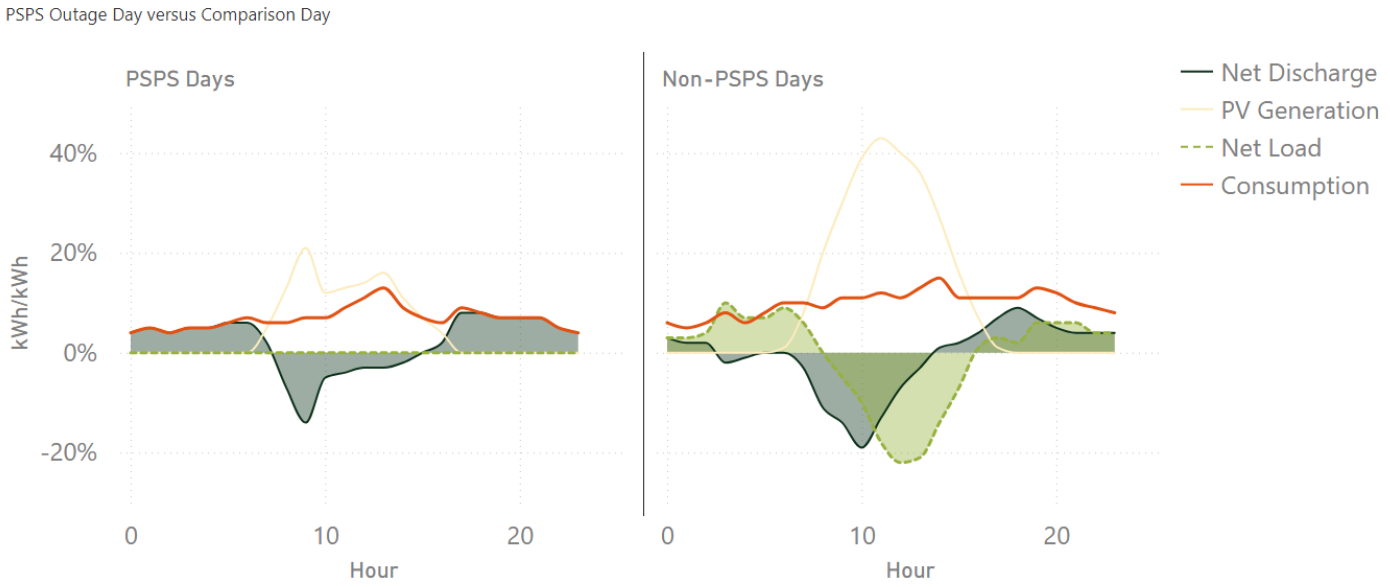
- ELRP A.4 participants exhibit significant differences between event and control days
- Battery Storage export on event days and arbitrage or self-consumption otherwise



CUSTOMER RESILIENCY

Storage Utilization During Outages Compared to Similar Non-outage Days

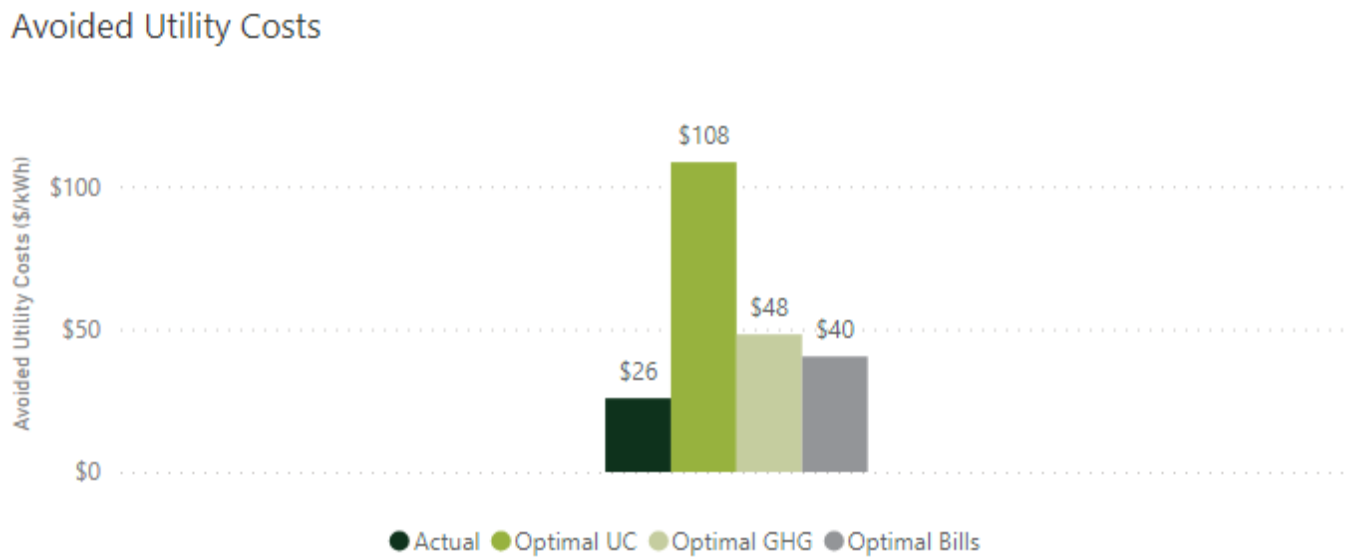
- **PSPS outage days**
  - Non-zero consumption
  - Increased storage utilization
  - Curtailment of Solar PV
- **Non-PSPS days**
  - Increased consumption
  - Lower discharge magnitude
  - Delivered and Received load not zero



RESIDENTIAL OPTIMIZATION

Utility Avoided Cost Scenario

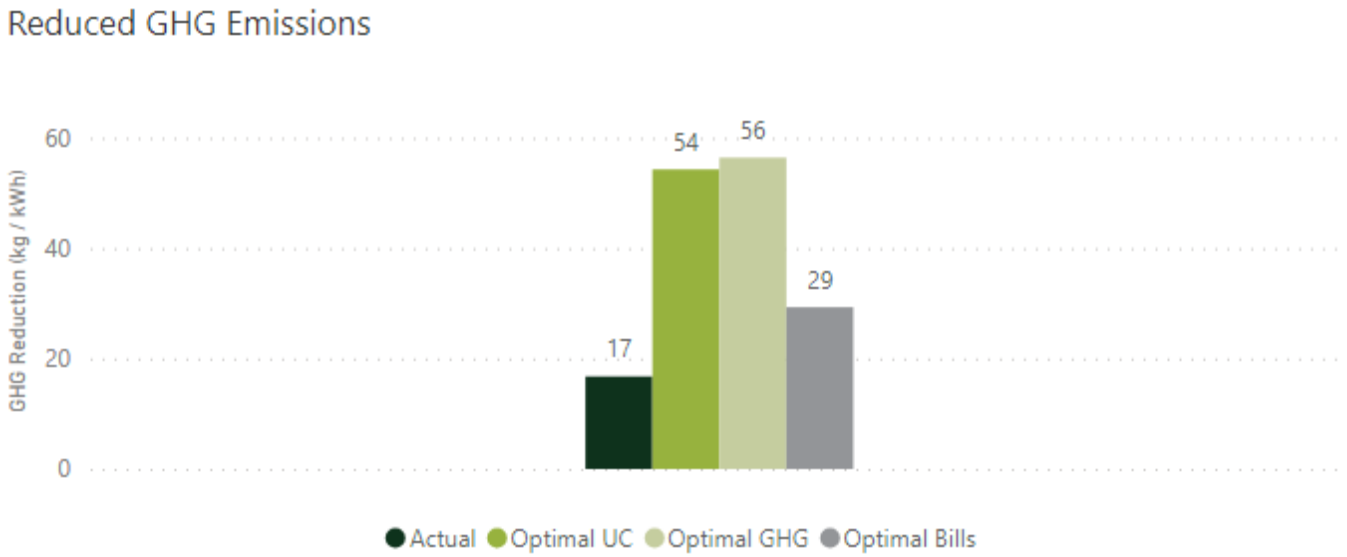
- $26/kWh observed avoided cost benefit
- 4x improvement in avoided cost when optimized for it
- ~2x improvement when optimizing for GHG
- 50% increase when optimized for bill savings



RESIDENTIAL OPTIMIZATION

GHG Scenario

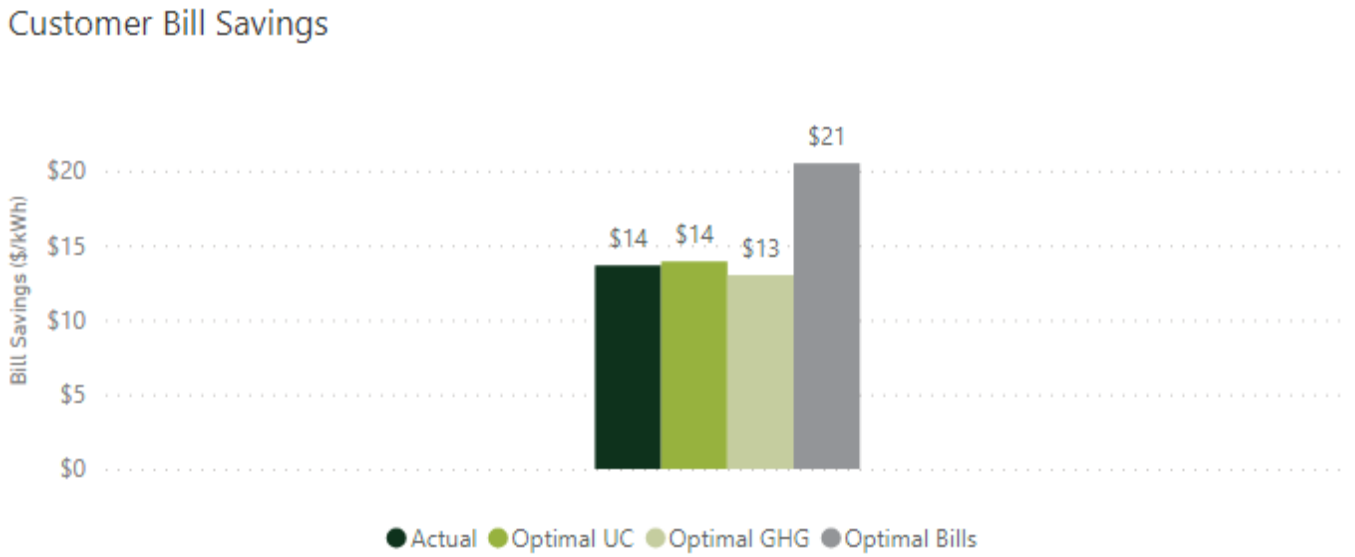
- 17 kg/kWh observed GHG reduction
- 3x improvement in GHG when optimized for it
- 3x improvement when optimized for avoided costs
- ~50% reductions when optimized for bill savings



RESIDENTIAL OPTIMIZATION

Customer Bills Scenario

- Bill savings largely unchanged from observed when optimizing for avoided cost benefits or GHG reductions
- 50% increase in bill savings when optimizing for it



CONCLUSIONS AND RECOMMENDATIONS

- GHG emissions differentials between charging overnight and discharging on-peak are not sufficient to realize emissions reductions like observed with PV paired systems charging from on-site PV
  - **We recommend that the PAs explore ways to ensure that standalone systems achieve GHG reductions, such as requiring that they follow the SGIP GHG signal or real-time pricing signals.**
- Residential and nonresidential systems are not discharging the total capacity of the system regularly and many residential customers are limiting discharge to maintain net zero load rather than exporting
  - **We recommend that the CPUC explore ways to encourage additional battery utilization through enrollment in virtual power plants (VPP), utility control of storage, participation in real-time rates, or other mechanisms.**
  - **We also recommend battery developers collect and provide state-of-charge (SOC) information in addition to charge/discharge data so that future evaluations can study the relationship between maximum and minimum SOC settings and SGIP benefits.**

CONCLUSIONS AND RECOMMENDATIONS

- Solar PV paired residential storage discharges roughly 45% of system kWh capacity daily throughout summer weekdays, and standalone systems discharge about 22% of available capacity
  - **We recommend that the CPUC explore ways to encourage more targeted dispatch that emphasizes the importance of discharging batteries (and reducing load) during on-peak hours rather than daily self-consumption.**

- SGIP energy storage systems were not performing too differently during capacity constrained hours than they were ordinarily in 2022. In fact, ELRP participation is where we observe differences in storage dispatch between event and control days
  - **We recommend that the CPUC and SGIP PAs continue to encourage participation in DR programs. Programs like the ELRP that compensate customers for export (rather than just reductions in consumption) should be prioritized as they represent an incremental load reduction relative to typical battery dispatch.**

CONCLUSIONS AND RECOMMENDATIONS

- Optimization modeling revealed that the average actual avoided emissions of 17 kg of GHG per kWh of capacity would triple if optimized for GHG reductions or utility avoided costs. They would almost double if customer bill savings were optimized.
  - **We recommend that the CPUC and the PAs revisit the 5 kg/kWh GHG reduction target and consider replacing it with a more ambitious target that reflects improvements in technology to maximize its potential.**
- Optimizing residential charge and discharge for utility avoided cost benefits would result in a 4.5x improvement over actual avoided cost benefits in 2022. Avoided cost benefits would also increase if GHG emissions or bill savings were optimized, but at lower magnitudes.
  - **We recommend the CPUC continue to explore strategies to encourage SGIP participants to enroll in DR or real-time retail rates to encourage increased dispatch during high GHG/demand hours.**

VERDANT

SELF-GENERATION INCENTIVE PROGRAM

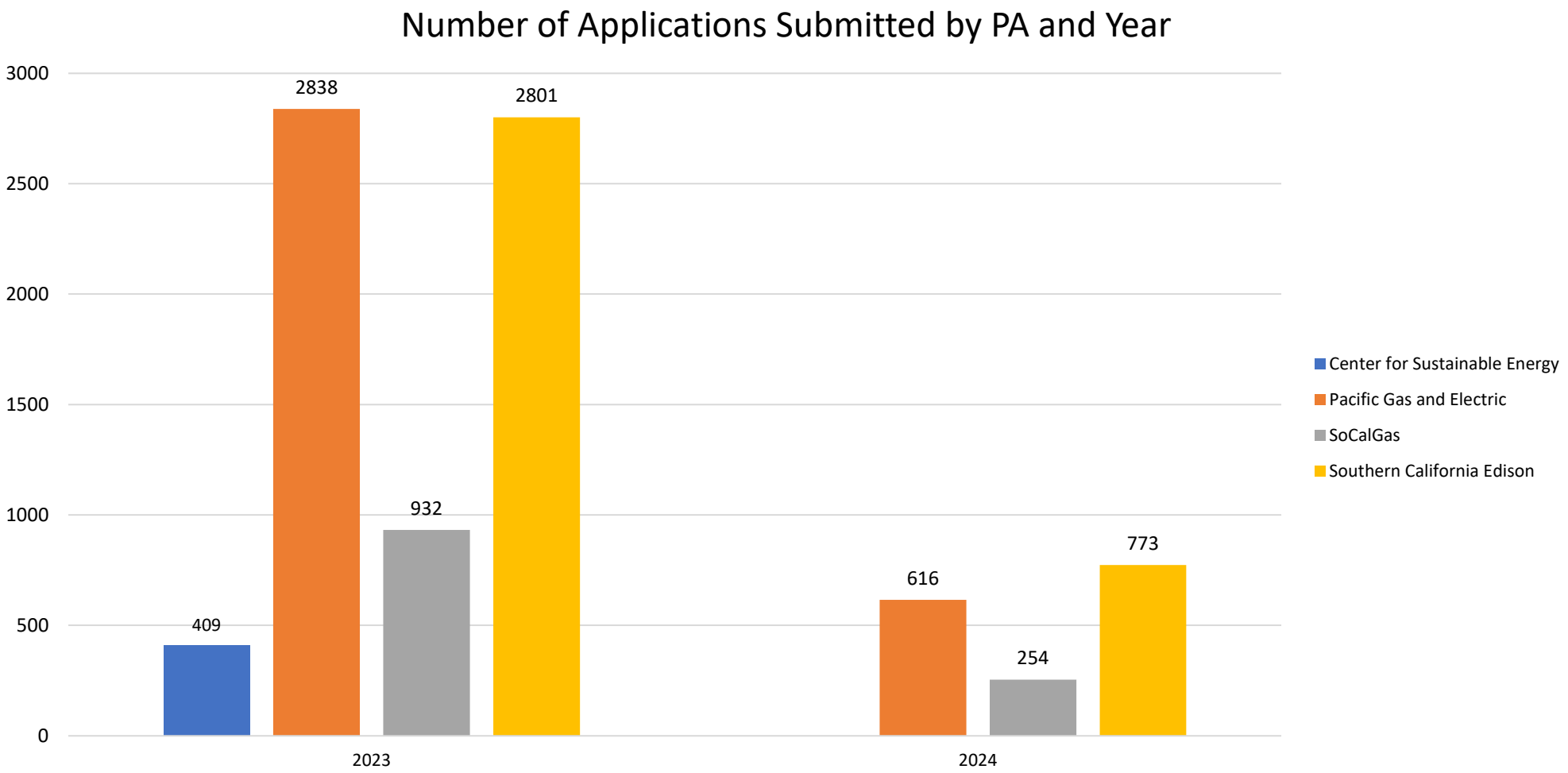
Program Metrics

Ron Moreno - PGE

Program Metrics

Data: 2023 – March 22, 2024

SELF-GENERATION INCENTIVE PROGRAM



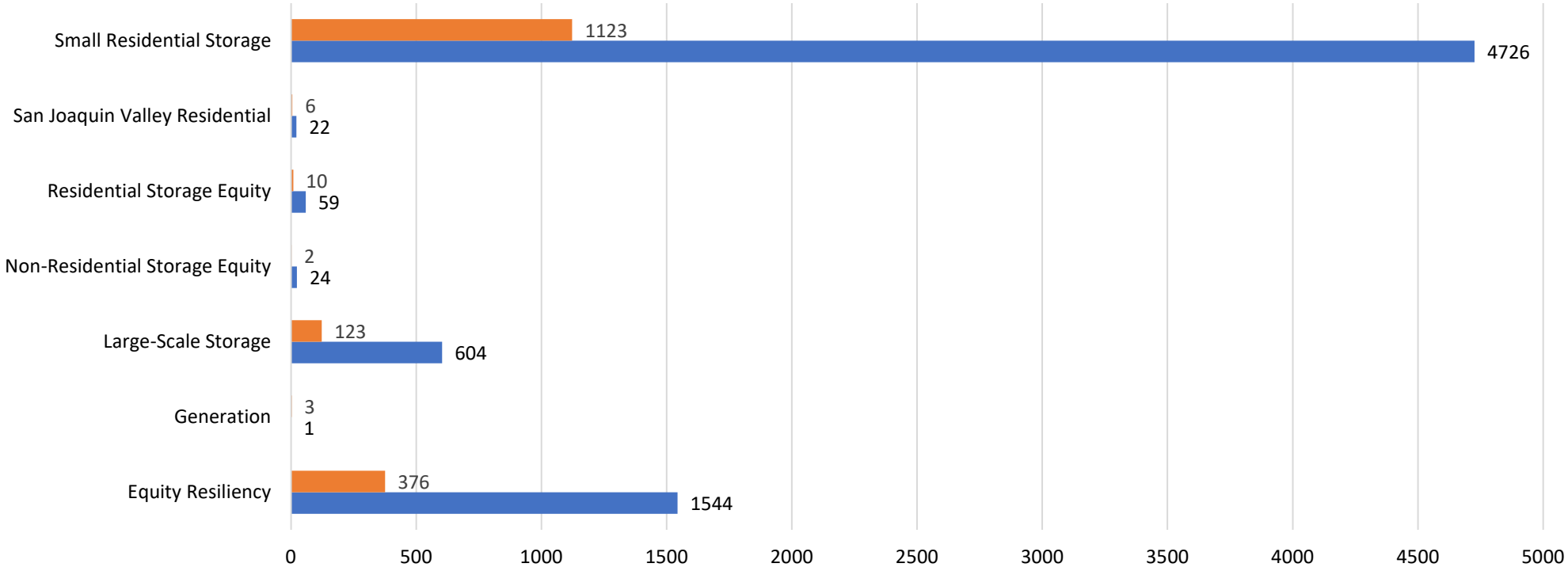
Does not include cancelled and waitlist applications

Program Metrics

Data: 2023 – March 22, 2024

SELF-GENERATION INCENTIVE PROGRAM

Number of Applications by Budget Category and Year



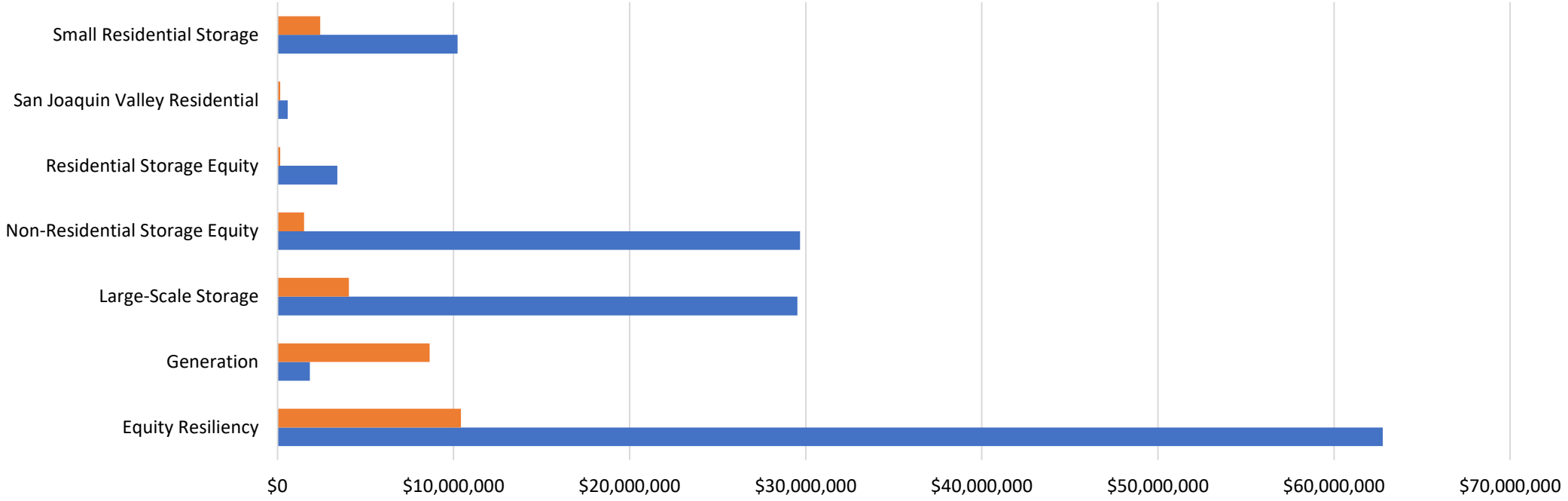
	Equity Resiliency	Generation	Large-Scale Storage	Non-Residential Storage Equity	Residential Storage Equity	San Joaquin Valley Residential	Small Residential Storage
2024	376	3	123	2	10	6	1123
2023	1544	1	604	24	59	22	4726

Program Metrics

Data: 2023 – March 22, 2024

SELF-GENERATION INCENTIVE PROGRAM

Total Incentive Dollars by Budget Category

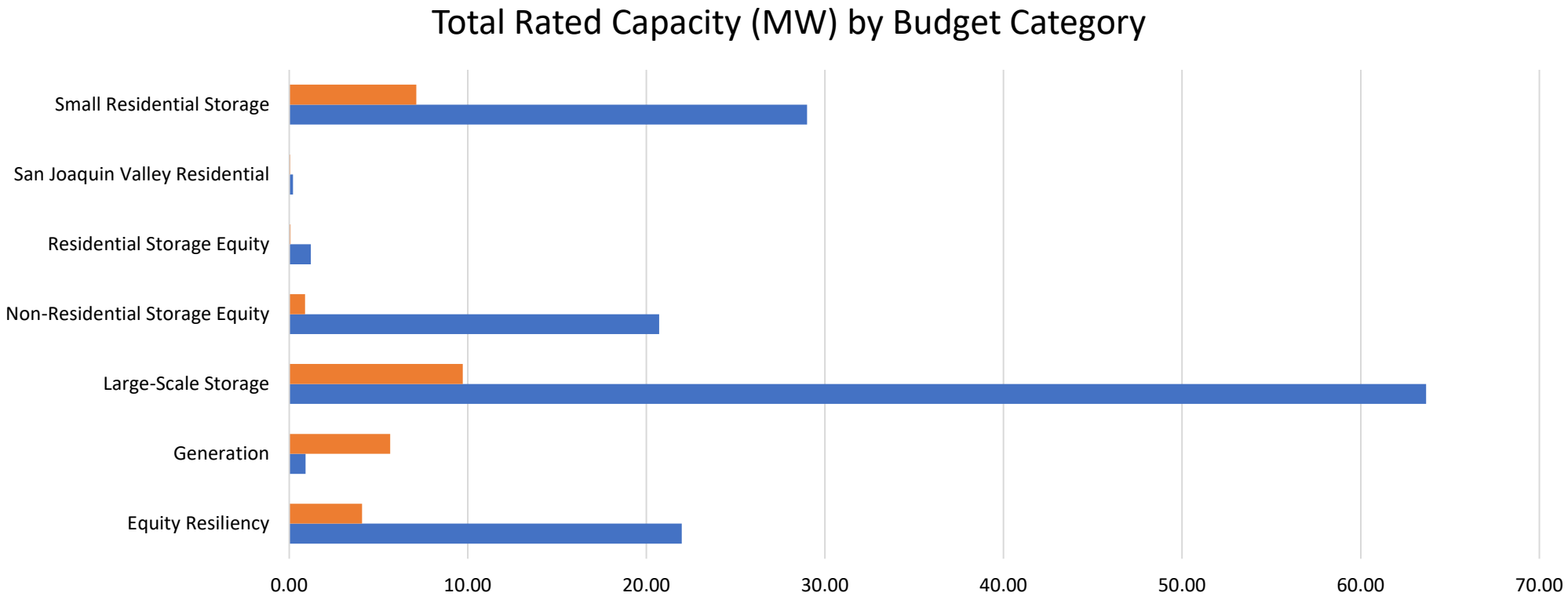


	Equity Resiliency	Generation	Large-Scale Storage	Non-Residential Storage Equity	Residential Storage Equity	San Joaquin Valley Residential	Small Residential Storage
2024	$10,426,735	$8,640,000	$4,060,238	$1,511,241	$153,244	$158,400	$2,424,038
2023	$62,774,625	$1,840,000	$29,530,285	$29,681,296	$3,396,482	$580,800	$10,224,690

Program Metrics

Data: 2023 – March 22, 2024

SELF-GENERATION INCENTIVE PROGRAM



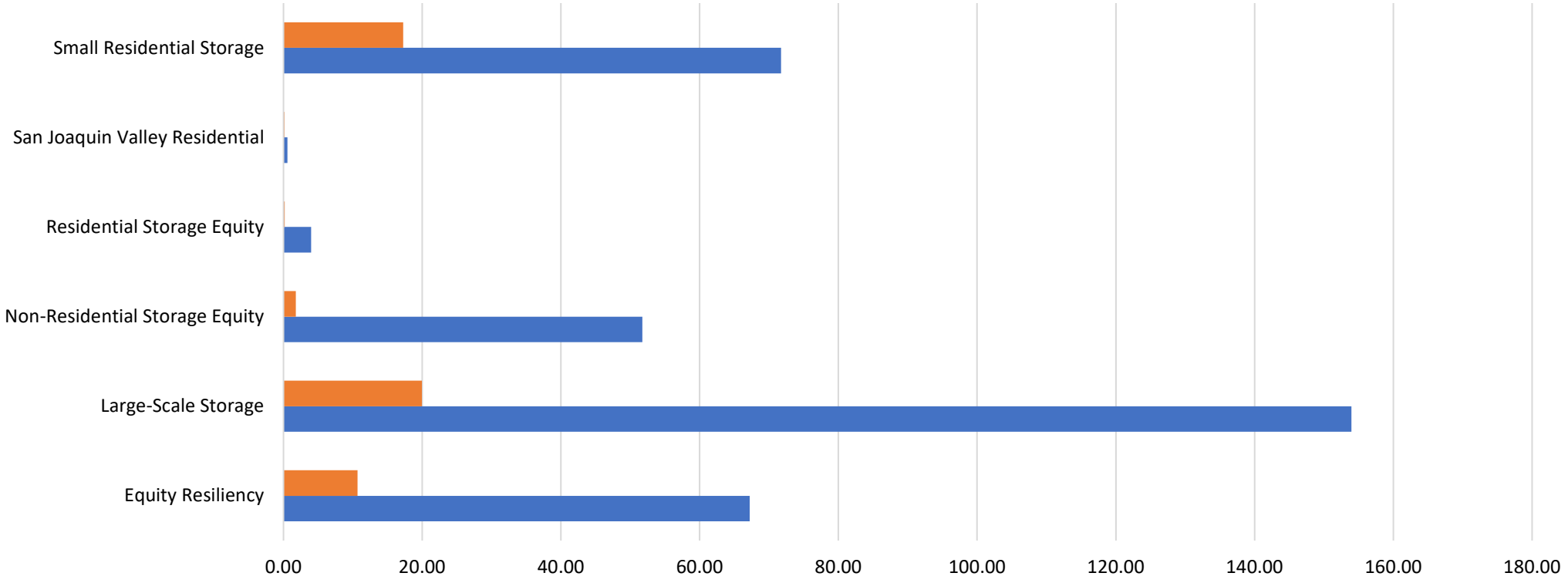
	Equity Resiliency	Generation	Large-Scale Storage	Non-Residential Storage Equity	Residential Storage Equity	San Joaquin Valley Residential	Small Residential Storage
2024	4.08	5.66	9.72	0.89	0.08	0.06	7.12
2023	21.99	0.92	63.66	20.72	1.22	0.22	29.01

Program Metrics

Data: 2023 – March 22, 2024

SELF-GENERATION INCENTIVE PROGRAM

Total Energy Capacity (MWh) by Budget Category

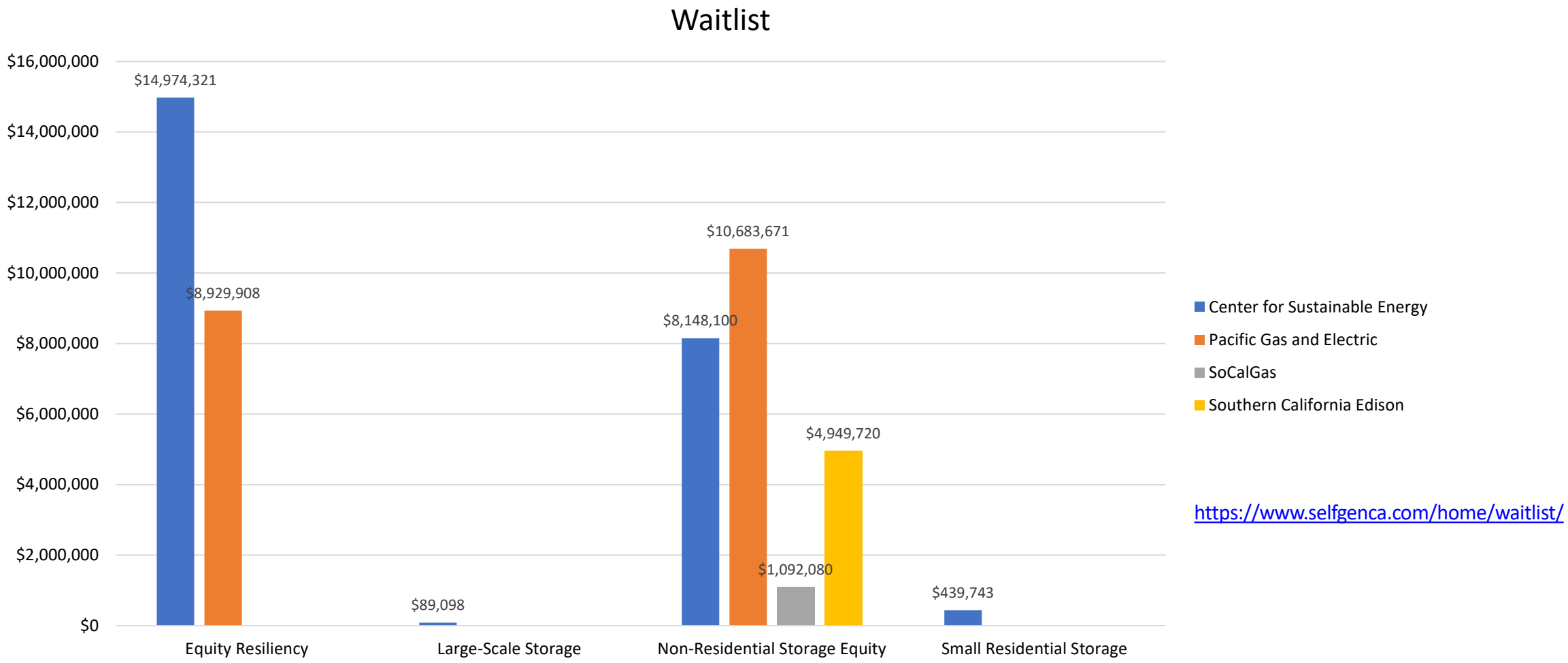


	Equity Resiliency	Large-Scale Storage	Non-Residential Storage Equity	Residential Storage Equity	San Joaquin Valley Residential	Small Residential Storage
2024	10.68	19.97	1.78	0.19	0.16	17.27
2023	67.22	153.97	51.73	4.01	0.58	71.74

Program Metrics

Data: March 26, 2024

SELF-GENERATION INCENTIVE PROGRAM



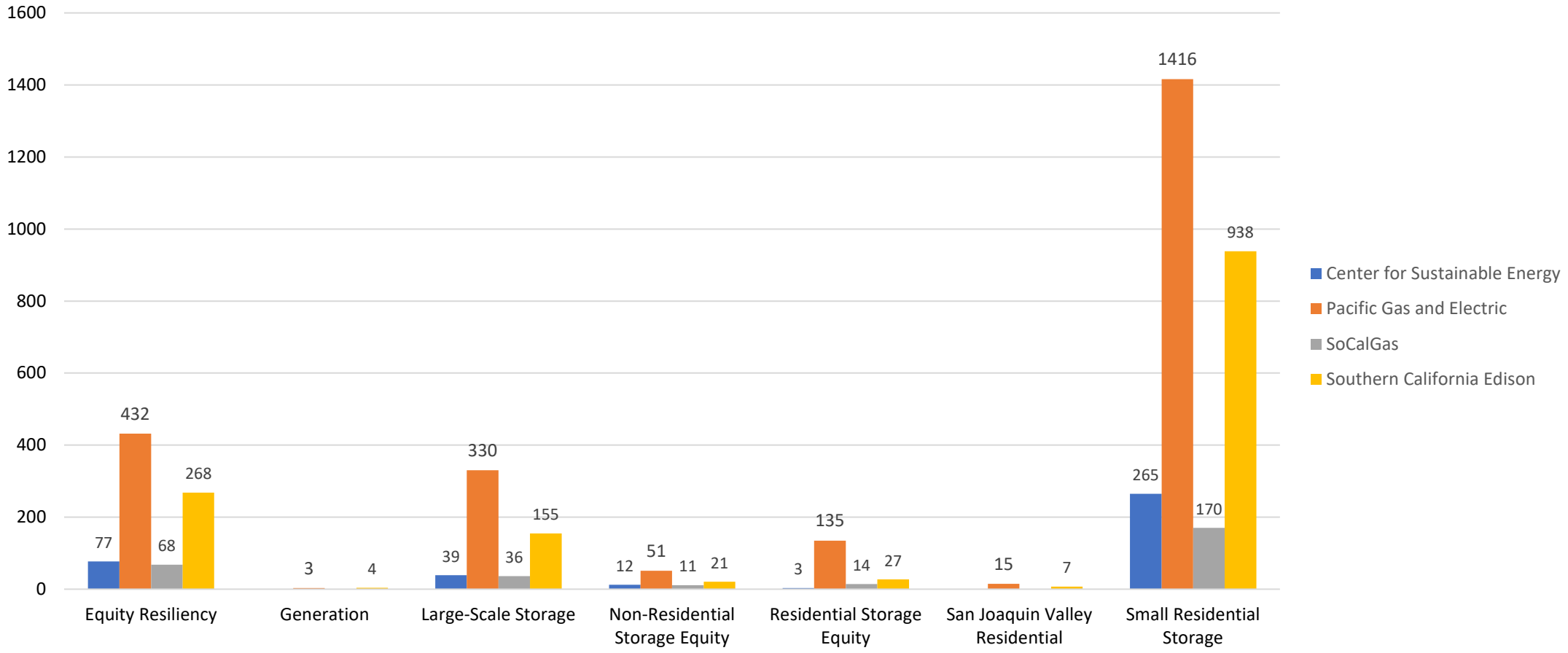
https://www.selfgenca.com/home/waitlist/

Program Metrics

Data: 2023 – March 22, 2024

SELF-GENERATION INCENTIVE PROGRAM

Cancellations by Budget Category



Program Metrics

Data: March 25, 2024

SELF-GENERATION INCENTIVE PROGRAM

Budget Category	CSE	SCE	SCG	PG&E
Large-Scale Storage	**Waitlist**	**Step 5**	**Step 5**	**Step 5**
		$400,341.61	$1,065,357	$1,337,663
Small Residential Storage	**Waitlist**	**Step 7**	**Step 7**	**Step 7**
		$2,575,334	$1,239,670	$1,186,540
Residential Storage Equity	**Waitlist**	**Open**	**Open**	**Open**
		$2,694,894	$884,323	$16,942,534
Non-Residential Storage Equity	**Waitlist**	**Waitlist**	**Waitlist**	**Waitlist**
Equity Resiliency	**Waitlist**	**Open**	**Open**	**Waitlist**
		$2,557,595	$908,535	
San Joaquin Valley Residential		**Open**		**Open**
		$4,272,800		$22,400
San Joaquin Valley Non-Residential		**Open**		**Open**
		$120,000		$120,000
Generation	**Waitlist**	**Open**	**Open**	**Open**
		$35,488,586	$11,688,395	$27,494,039

SCE, CSE, and PG&E have reached the 50% Residential Storage Soft Target Cap for Small Residential Step 7

All of CSE's budgets are in waitlist status until the CPUC approves CSE's Motion to fully fund SGIP

When additional funding is provided in a given budget category, applications on a waitlist will be awarded funding in the order they were received

https://www.selfgenca.com/home/program_metrics/

SGIP | Waitlists (selfgenca.com)

SGIP Q1 Stakeholder Workshop - Phishing Attempt

March 29, 2024

Kelsey Albers

Senior Project Manager, DER

Energy Solutions

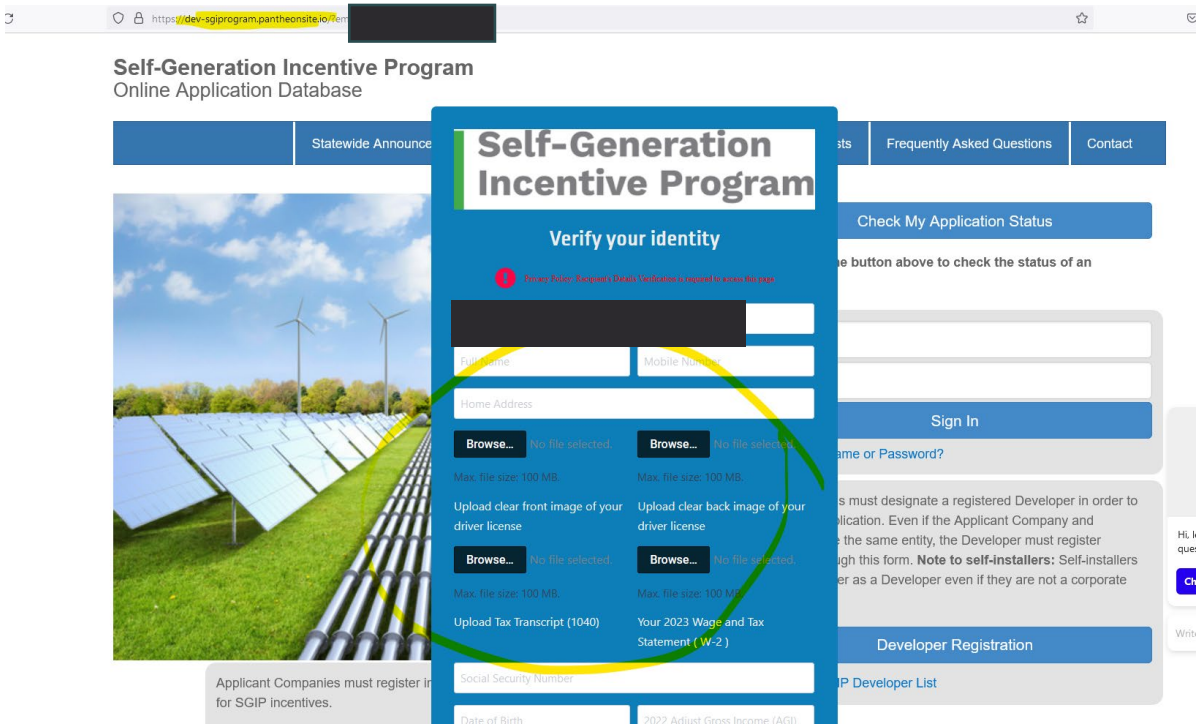
Agenda

1. Phishing Attempt Overview
2. Phishing Attempt Identifiers
3. Best Practices
4. Changes to Public Approved Developer List

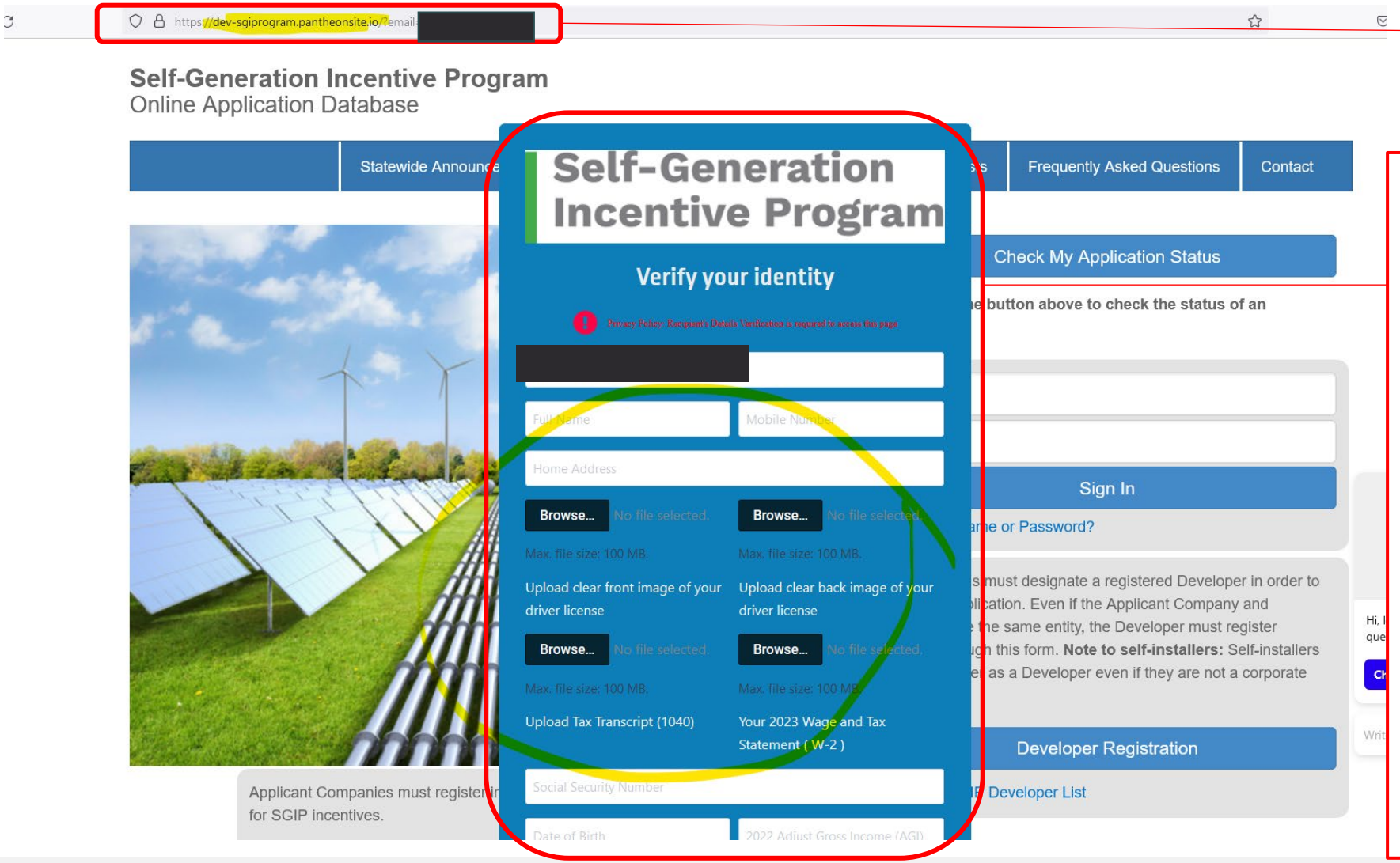
Phishing Attempt Overview

- On 2/14 the SGIP Support team was notified that several developers had received emails from an “@icoud.com” email address requesting an update to personal information within 24 hours.
- This scam created a website that mimicked the look of selfgenca.com.
- Appears to have used publicly available information from the public SGIP Approved Developer List.
- There is no evidence of a security breach or risk to data security on selfgenca.com.
- On 2/16, SGIP Support sent email notifications with best practices to all ~1500 developers listed on selfgenca.com

Phishing Site Screenshot



Phishing Attempt Identifiers



Incorrect website URL. ALWAYS check the URL to confirm it is **selfgenca.com**

SGIP will **NEVER** request identity verification in this manner.

SGIP will **NEVER** request a quick turnaround for log-in information

Any log-in issues will result in an email from a "@selfgenca.com" email

We will never request this level of personal information from you to log in.

Best Practices to Avoid/Handle Phishing Attempts

At a minimum, please adhere to the best practices outlined below to reduce any chance of falling subject to phishing attempts.

1

Always check the URL – SGIP applications are only hosted on selfgenca.com

2

NEVER log in or provide information to any website other than selfgenca.com

3

If you ever receive an email requesting personal information, please
-DO NOT click any links;
-DO NOT provide any personal information;
-Take a screenshot of the email and notify your PA and SGIP Support (sgipsupport@energy-solution.com);
-Mark the email as spam and/or delete the email;
-Follow the cybersecurity policies you/your organization may have for phishing/malicious emails.

4

SGIP-related communication will come from a PA, database manager or administrator with one of the following email domains:

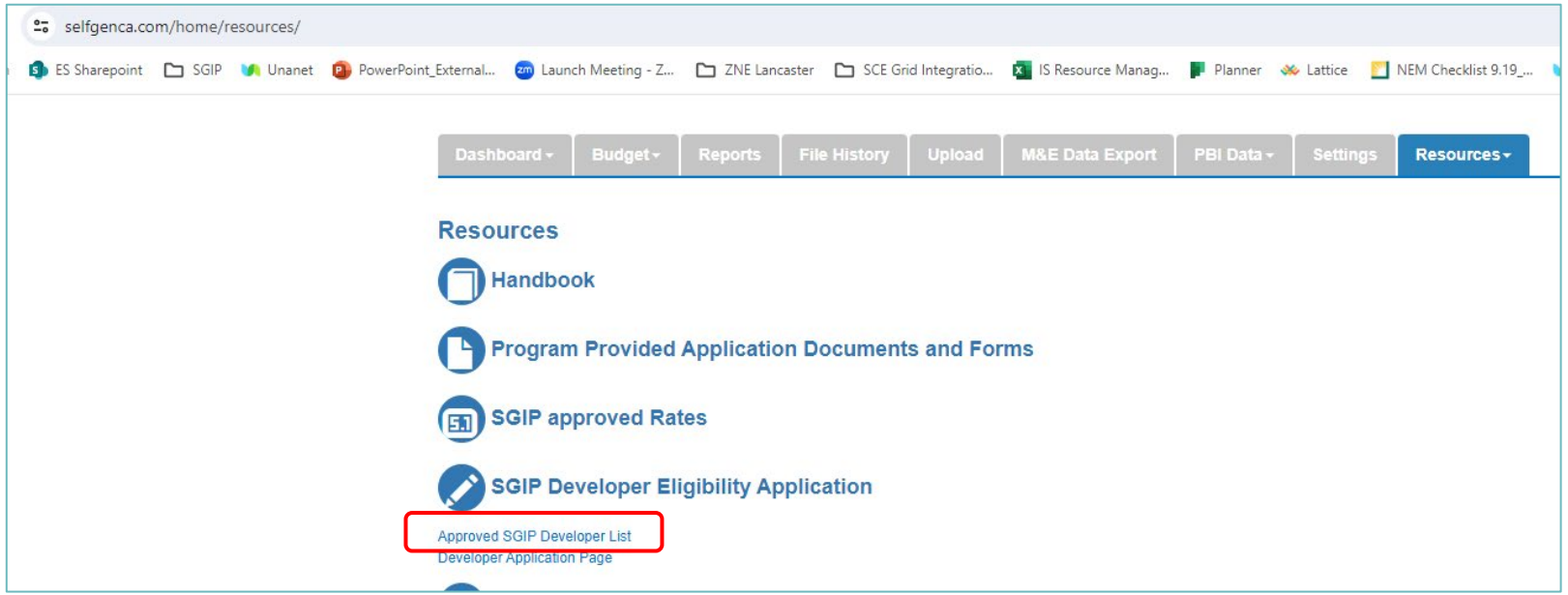
- PG&E: @pge.com
- SoCalGas: @socalgas.com
- CSE: @energycenter.org
- SoCalEdison: @sce.com
- Energy Solutions: @energy-solution.com
- Database Communications: @selfgenca.com
- Verdant: @verdantassoc.com
- Verdant Surveys: @qualtrics-research.com
- AESC: @aesc-inc.com

Best Practices Following a Phishing Attack

1. **Remain Vigilant for Subsequent Attacks** – Phishing attempts can come from any communication channel, not just your email. Malicious attempts to gather private information can be made via phone calls, text messages and physical mail.
2. **Change Passwords** – Update password on all systems containing sensitive information. New passwords should follow a new and complex password creation scheme.

Changes to the Publicly Available Approved Developer List

- Prior to the phishing attempt, the approved developer list included: developer name, contact name, approved steps, email, phone number and street address information.
- The Approved Developer List has been updated to remove developer contact name, email, phone number and street address info as well as homeowner name.
- Remaining information includes Approved Steps, Developer, City, and State.




Thank you
Kelsey Albers
kalbers@energy-solution.com

Phishing Email Tips

SELF-GENERATION INCENTIVE PROGRAM

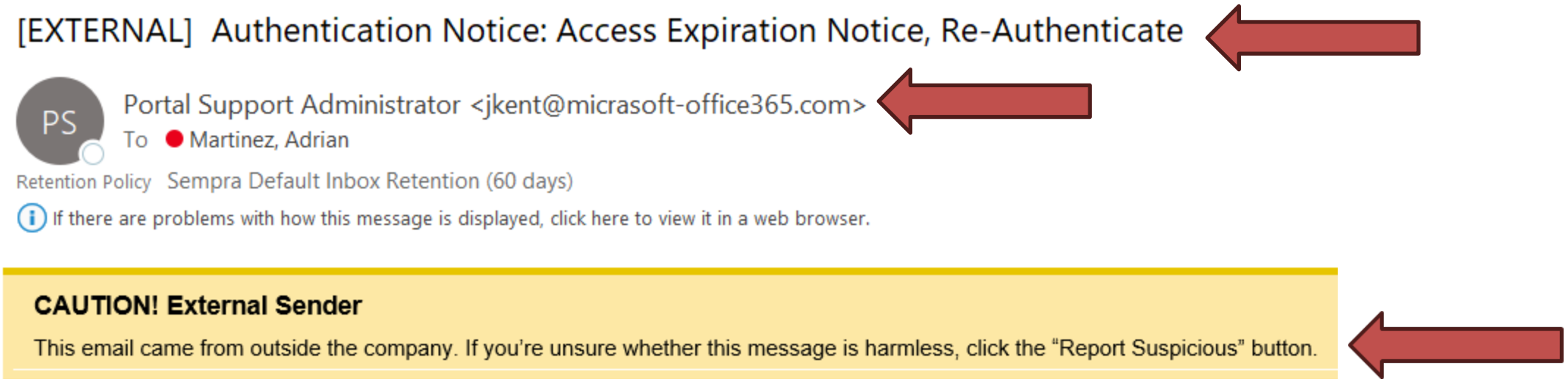
- Phishing is a cybercrime that targets you by email or phone to gain or obtain access to sensitive information

- Be aware of phishing emails that ask you to click on a link or provide information

- Helpful Tips
  - Ask yourself, “Was I expecting this email?”
  - Do not click the on the link and do not provide sensitive information.
  - Be aware as an urgent subject line is trying to scare you into action
  - Ask yourself, “Do I recognize the sender or the domain name?”
  - Look for misspelling in the body of the email, subject line, or sender
  - It does not hurt to report any email as spam if unsure

Phishing Email Example

SELF-GENERATION INCENTIVE PROGRAM



Phishing Email Example

SELF-GENERATION INCENTIVE PROGRAM

Microsoft

Microsoft Security Policy

Dear Adrian,

- Your **MFA** security authentication expires today
- You must reauthenticate your O365 account to avoid login interruption

Authenticate

This link expires in 24 hours

This email was sent from an unmonitored mailbox.
You are receiving this email because you have subscribed to Microsoft Office 365.
Privacy Statement
Microsoft Corporation, One Microsoft Way, Redmond, WA 98052 USA

Break

Please return at 10:45 am for the next session, on AB 209 implementation.

Proceeding No. R.20-05-022

California Public Utilities Commission

Self-Generation Incentive Program
Decision 24-03-071
AB 209 Implementation and SGIP Improvements

March 29, 2024

SGIP Quarterly Workshop

Energy Division

Agenda

- AB 209 Background and Regulatory Process to Decision
- D.24-03-071: adopted modifications to SGIP and requirements for AB 209 budget
- Next steps
- Q&A

AB 209 Funding

- September 2022 Governor Newsom approved **AB 209** which for the first time **adds State monies into solar and storage incentives** through SGIP for residential customers. The **Fund source in FY23** is the CARB Greenhouse Gas Reduction Fund.

- **$280 million** in FY 2023-24 allocated to the CPUC for incentives for **eligible low-income residential customers** who install either new BTM solar photovoltaic systems paired with energy storage systems or new standalone energy storage systems. **PU Code 379.10** dictates the statutory purpose of the funds. **June 30, 2028, is the sunset date.**

- Following opportunities for written comments after the budget was adopted the CPUC issued a Proposed Decision on February 5th and **adopted the final Decision on March 21st, 2024.**

State of California

PUBLIC UTILITIES CODE

Section 379.10

379.10. (a) In administering the self-generation incentive program pursuant to Section 379.6, the commission shall use funds appropriated by the Legislature for the purpose of providing incentives to eligible low-income residential customers, including those receiving service from a local publicly owned electric utility, as defined pursuant to Section 224.3, who install behind-the-meter energy storage systems or solar photovoltaic systems paired with energy storage systems, as an integrated approach to increase individual customer resiliency, to reduce the electrical grid's net peak demand, to reduce electric ratepayer costs, and to reduce emissions of greenhouse gases and localized air pollution.

(b) The commission shall consider requiring customers installing solar photovoltaic systems paired with energy storage systems or new energy storage systems under this section and served on a standard contract or tariff pursuant Section 2827.1 to participate in a demand response or peak load reduction program offered through the customer's load-serving entity, including market-integrated supply-side demand response programs, to reduce net peak demand.

(Amended by Stats. 2023, Ch. 52, Sec. 6. (SB 123) Effective July 10, 2023.)

D.24-03-071 Adopted by the Commission 3/21

- https://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M527/K963/527963349.PDF

- Allocates the initial tranche of $280 million to the SGIP Residential Solar and Storage Equity budget across five Program Administrators

- Amends the existing SGIP rules in several ways to improve program outcomes

- Requires the SGIP PAs to submit ALs to the CPUC with Handbook updates before the AB 209 program is open for enrollment

Program Administrators for AB 209 Funding

$280 million is allocated to:

1. Existing PAs PG&E, SCE, and SoCalGas, and CSE on behalf of SDG&E; and
2. A new PA for Los Angeles Department of Water and Power (LADWP)

Budget allocation (Methodology: CalEnviroScreen poverty indicator data)

Program Administrator	Total FY 23 Funds (in $ millions)	Percentage, rounded
Pacific Gas and Electric Company	$110	39%
Southern California Edison Company	$97	35%
Los Angeles Department of Water and Power	$36	13%
San Diego Gas and Electric Company	$22	8%
Southern California Gas Company	$15	5%
Total	**$280**	**100%**

AB 209 Funding Allocation Across SGIP Budget Categories

- The existing Residential Storage Equity budget is renamed the Residential Solar and Storage Equity budget, with updated rules and new funding.

- When eligible low-income IOU customers apply for residential storage incentives the PAs shall first exhaust remaining IOU ratepayer funds before tapping into AB 209 funds.

Budget Category	Technology	Fund Source
Residential Solar and Storage Equity	Storage	AB 209 / Ratepayer
	Solar	AB 209

SGIP AB 209 Budget Allocation for Incentives, Administration, Marketing, Education & Outreach, and Measurement and Evaluation

- The allocations for M&E and ME&O activities are incremental to the 5 percent statutory administrative cost cap for AB 209 funding.
- M&E and ME&O are capped at a combined 5 percent with discretion to PAs on the spending breakdown.

AB 209 Program Functions	Percentage
Administration	5%
Marketing, Education and Outreach	5%
Measurement and Evaluation	
Incentives	90%
Total	**100%**

Residential Solar and Storage Equity Budget Incentive

- **Storage Incentive Level**
  - The maximum storage incentive level for the Self-Generation Incentive Program's Residential Solar and Storage Equity budget is raised from $.85 per watt-hour (Wh) to $1.10/Wh.

- **Solar Incentive Level and Rules for Low-Income Customers**
  - The maximum solar incentive level for the Self-Generation Incentive Program's Residential Solar and Storage Equity budget is set at $3.10 per watt for both single-family and multifamily projects.

Residential Solar and Storage Equity Budget Incentive

- **Solar incentive**
  - PAs must use an expected performance methodology to adjust incentive
  - DAC-SASH and SOMAH program requirements for certain eligibility and qualification rules should be the model for SGIP solar incentive design

- **System sizing**
  - Sizing requirements for the solar system should align with those adopted in the NBT Decision, namely to 100 percent of a customer's onsite load with the ability to submit an oversizing attestation for an additional 50 percent to promote electrification.
  - The SGIP PAs are authorized to submit a joint Tier 2 Advice Letter with a proposal to update energy storage system sizing requirements.

Modifying Low-Income SGIP Requirements

- Current SGIP income verification and definitions (i.e. 80% of area median income for single-family) remain in place.

- The requirement to reside in a deed restricted or resale restricted residence for the residential storage equity budget is eliminated for single family residences.

- The list of low-income programs that, upon proof of enrollment and income verification, can allow a customer's categorical eligibility for SGIP equity budget incentives, is expanded to include CARE, FERA, and ESA.

Upfront Incentive Payments

- SGIP PAs will develop a proposal to provide 50% upfront payments to SGIP projects after confirming the credentials of the developer, the eligibility of the submitted customer and the eligibility of the proposed project. These payments occur at the Reservation Request stage in the SGIP application, while the balance occurs after the Incentive Claim.

- The SGIP PAs will file a joint Tier 2 Advice Letter describing the upfront payment financing process and specifying procedural safeguards to ensure that upfront payments that go to developer projects and are ultimately not installed can be redeployed to other projects or otherwise refunded to SGIP.

Additional Eligible Project Costs

- Solar inverter upgrades or replacements are eligible costs if one of the following conditions are met:
  1. A new inverter is required to add storage or additional incentivized capacity to an existing solar system; or
  2. A new inverter is replacing an existing one that is over 10 years old or out of warranty.
- Meter collars and meter socket adapters are eligible project costs.

IRA Tax Credit

- SGIP applicants shall continue to be required to note the expected tax credit value on their project application and this amount will be deducted from the SGIP incentive request.
- Applicants that indicate they will not claim the tax credit must include on their application a statement explaining why the project would be ineligible for the credit or why the credit could not otherwise be utilized or transferred.
- SGIP PAs to address at a future workshop proposals aimed at maximizing the Federal Inflation Reduction Act (IRA) cost share for the SGIP projects in ways that benefit customers and enable state incentives to go farther.

Improving SGIP Participation for Tribal Customers

- PAs for SGIP will identify a portion of their allocation of the AB 209 funds that should be reserved for and marketed directly to tribal customers.

- This is initially set at 2% of their AB 209 incentive budget, which may be requested to be adjusted by the PAs in a Tier 2 Advice Letter submission.

- Tribal set-aside is a floor not a ceiling.

Net Billing Tariff and TOU Rates for SGIP

- Existing NEM 1.0 and 2.0 solar customers that apply for new general market SGIP incentives are required to transition to the NBT established in D.22-12-056 or as updated in that proceeding.

- Residential Solar and Storage Equity, low-income qualified Equity Resiliency Residential, and San Joaquin Valley Residential budget category applicants are exempt.

- NBT rates are SGIP-approved rates, even if they otherwise do not meet the SGIP requirement for an on-peak to off-peak differential of 1.69x.

Participation in Demand Response Programs

- All new host customers in any storage budget category receiving SGIP incentives shall be required to enroll in a qualified DR program listed in Appendix E.
- This is a sub-set of the qualified DR programs that meet criteria established in D.23-12-005 that best serves SGIP.
- Enrollment and participation in a qualified DR program must be maintained for a project's 10-year permanency period.
- This provides ongoing opportunities for customer bill savings and additional program benefits.

Participation in Demand Response Programs

List of Qualified DR Programs for Meeting SGIP Requirement

PA (IOU, POU)	Program Name	Eligible Customers
PG&E	Capacity Bidding Program (CBP)	Residential, Commercial, Industrial, Agricultural
PG&E	Peak Day Pricing	Commercial, Industrial, Agricultural
PG&E	SmartRate	Residential
SCE	Capacity Bidding Program (CBP)	Residential, Commercial, Industrial, Agricultural
SCE	Critical Peak Pricing (CPP)	Commercial, Industrial, Agricultural
SCE	Critical Peak Pricing (CPP)	Residential
SDG&E	Capacity Bidding Program (CBP)	Residential, Commercial, Industrial, Agricultural
SDG&E	Critical Peak Pricing (CPP)	Commercial, Industrial, Agricultural
SDG&E	Time-of-Use Plus Pricing Plan	Residential
SDG&E	Time-of-Use Plus Pricing Plan	Commercial

This list of qualified DR programs for SGIP will be maintained by the PAs on the SGIP website and updated as the list of "qualified" DR programs gets updated by the Commission or the IOUs as per D.23-12-005 direction, or by the SGIP PAs through Tier 2 Advice Letter.

Measurement and Evaluation Improvements

- Manufacturers will be added to the 'Program Participant' list in the SGIP Handbook.
  - The definition and description of the manufacturer role in the program includes the requirement to submit operational and performance data when requested by the SGIP evaluator.
  - Infractions may be issued by PAs or ED for manufacturers that do not provide the information requested by the PAs or the SGIP Impact Evaluator in the timeframe requested.
- The Incentive Claim Form will be updated to require the applicant to include the part number and/or serial number associated with the incentivized system.

Other SGIP Modifications

- The requirement for PAs to separately meter SGIP incentivized and non-incentivized portions of energy storage system capacity is removed for projects that do not receive Performance Based Incentive (PBI) payments.

- The PAs are authorized to add Enhanced Power Safety Setting (EPSS) outages to the SGIP Handbook for the purposes of meeting criteria or requirements currently met by PSPS events.

Next Steps for AB 209 Implementation

Target Dates (subject to change)	Milestone
April 2024	Funds transfer to SGIP Program Administrators
Q2-Q3 2024	LADWP to establish PA selection
Early Q3 2024	Advice Letter submission by Joint PAs with solar incentive design, Handbook and database updates, and other rule modifications
Mid Q3 2024	Disposition of implementation ALs by Energy Division
Late Q3 2024	Application opening date for Residential Solar and Storage Equity to be announced
Q3 2024	Potential additional State funds allocated to CPUC

Q & A

- Please type questions in the chat or Q&A windows
- Raise your hand to be unmuted for verbal questions
- Please state your name, affiliation, and question

Thank you for participating

CPUC SGIP Staff:

- Gabriel.Petlin@cpuc.ca.gov
- Justin.Galle@cpuc.ca.gov
- FangYu.Hu@cpuc.ca.gov

Proceeding: Rulemaking 20-05-012

CPUC Proceeding Subscription: http://subscribecpuc.cpuc.ca.gov/

CPUC SGIP Webpage: cpuc.ca.gov/industries-and-topics/electrical-energy/demand-side-management/self-generation-incentive-program