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# Self-Generation Incentive Program (SGIP)

## Quarterly Workshop

*Friday, September 15<sup>th</sup> 2017*

*PG&E's Pacific Energy Center, San Francisco, CA*

*Hosted by Pacific Gas & Electric Company (PG&E), SoCalGas, Southern California Edison (SCE), and Center for Sustainable Energy (CSE)*



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# Agenda

**Program Adoption Data**

**Document, Application and other Technical Issues**

**Energy Solutions Tips & Tricks**

**Data Metering, Charge & Discharge Events**

**Regulatory Update**

**Residential batteries; backup only issue**

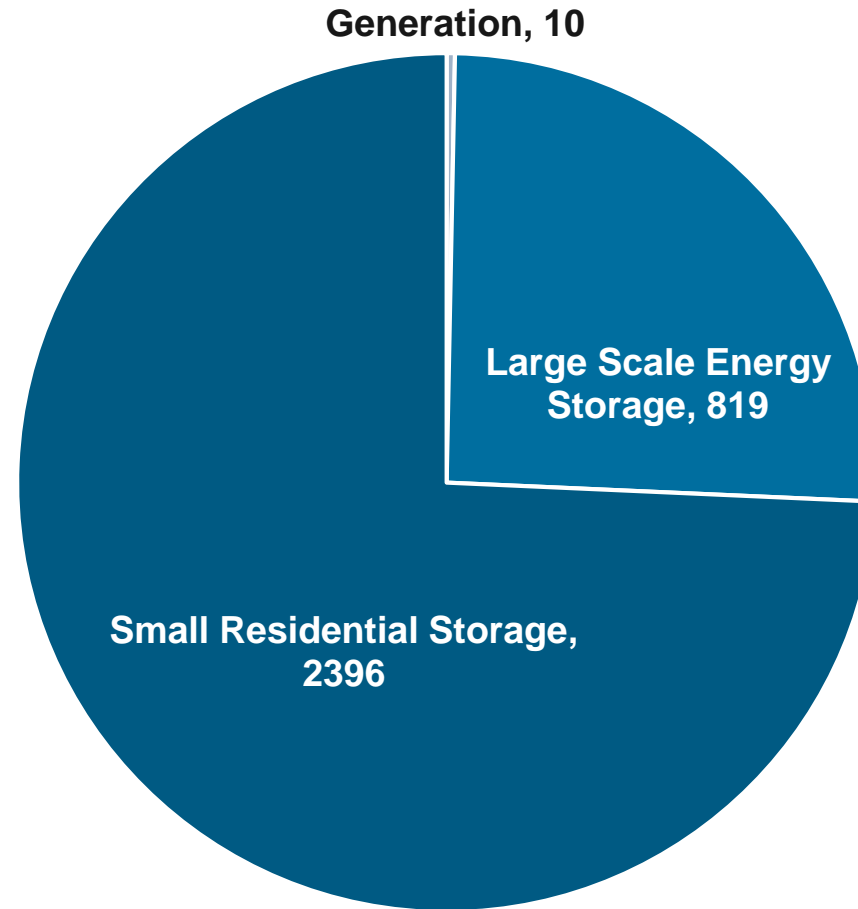
**Q&A**



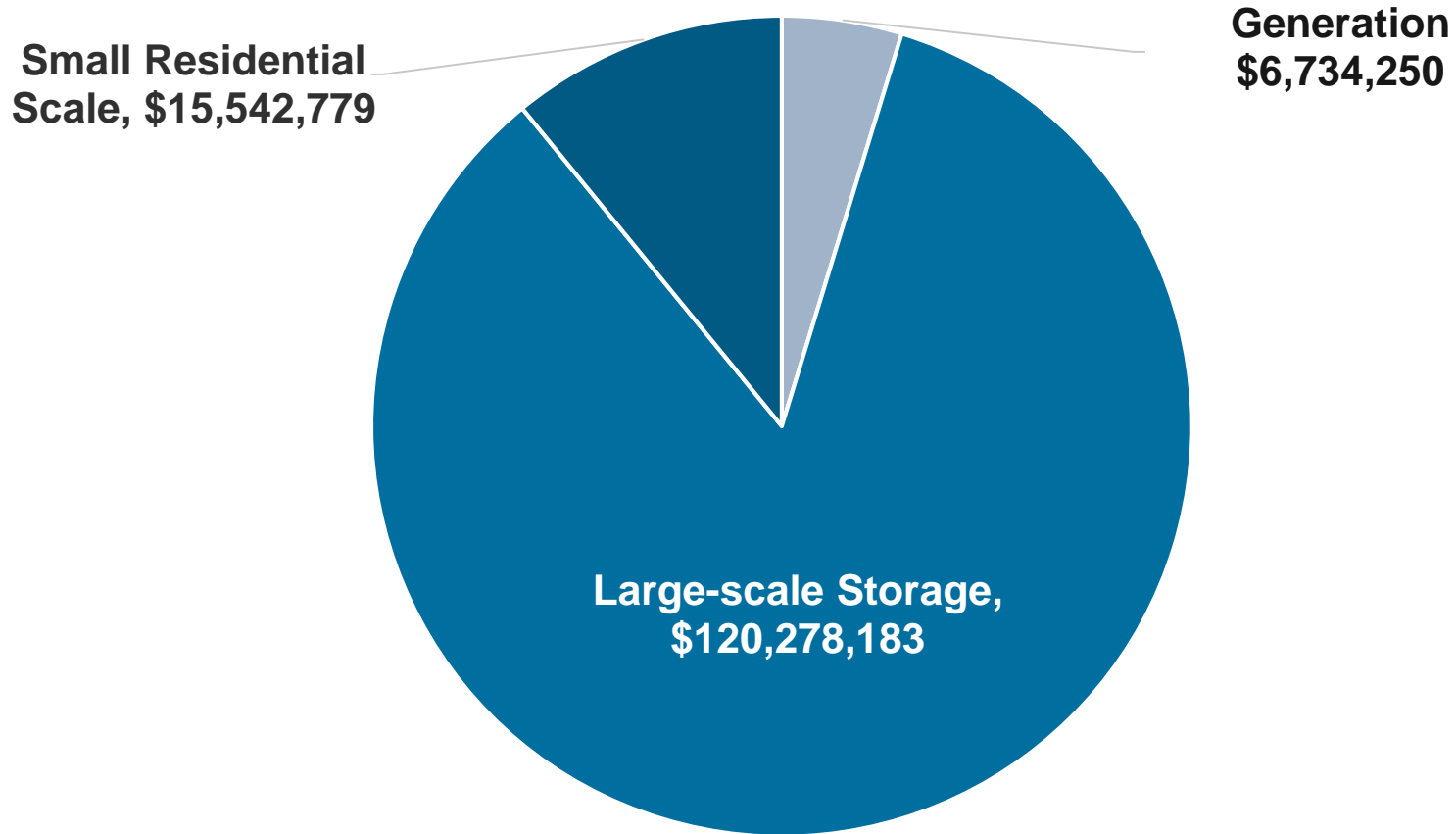
# 2017 Applications as of Sept 12, 2017

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Number of Active Applications : 3225



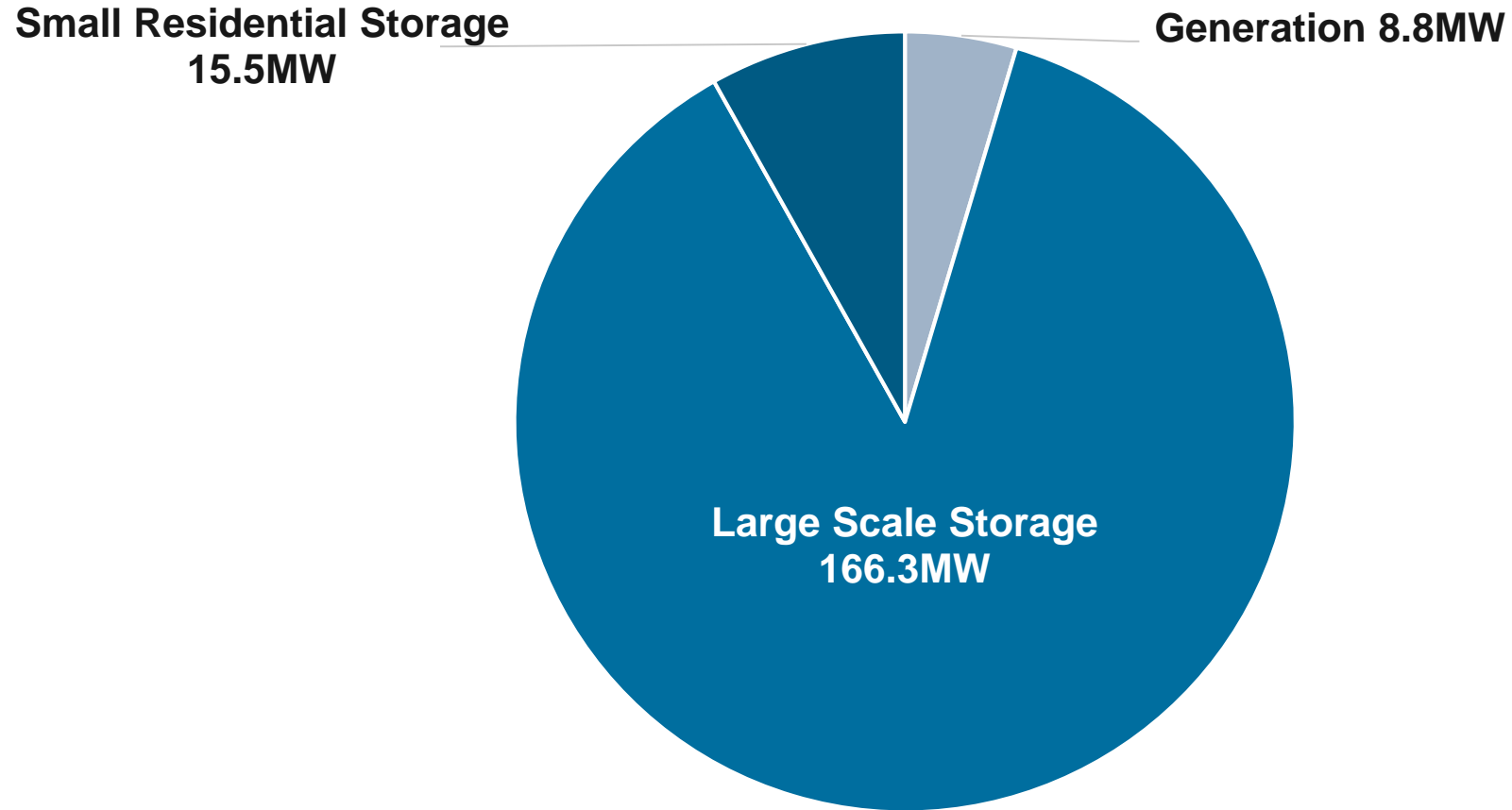
## Total 2017 Incentives Requests Statewide



# 2017 Applications as of Sept 12, 2017

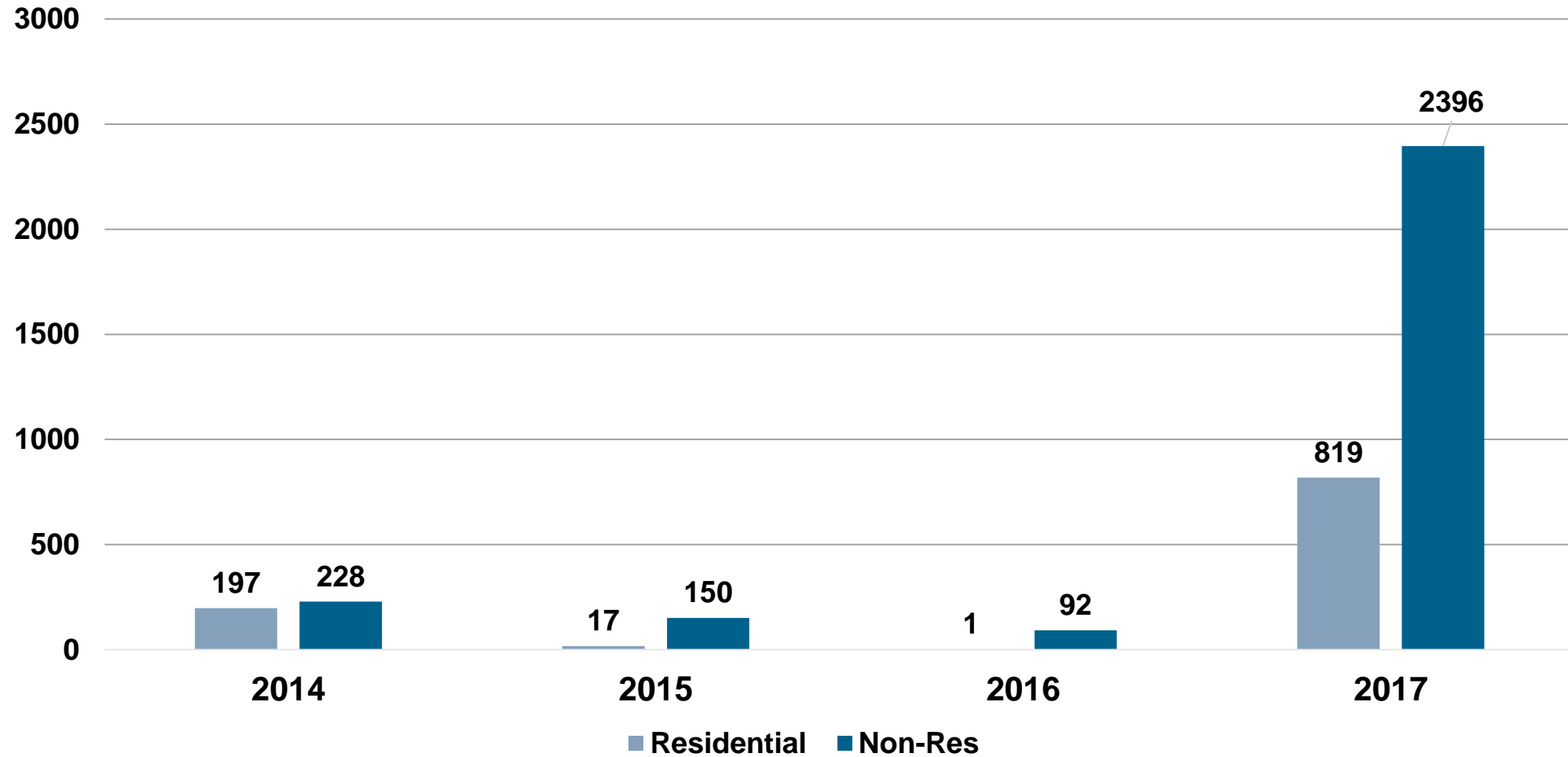
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## Total 2017 Capacity Statewide (MW)



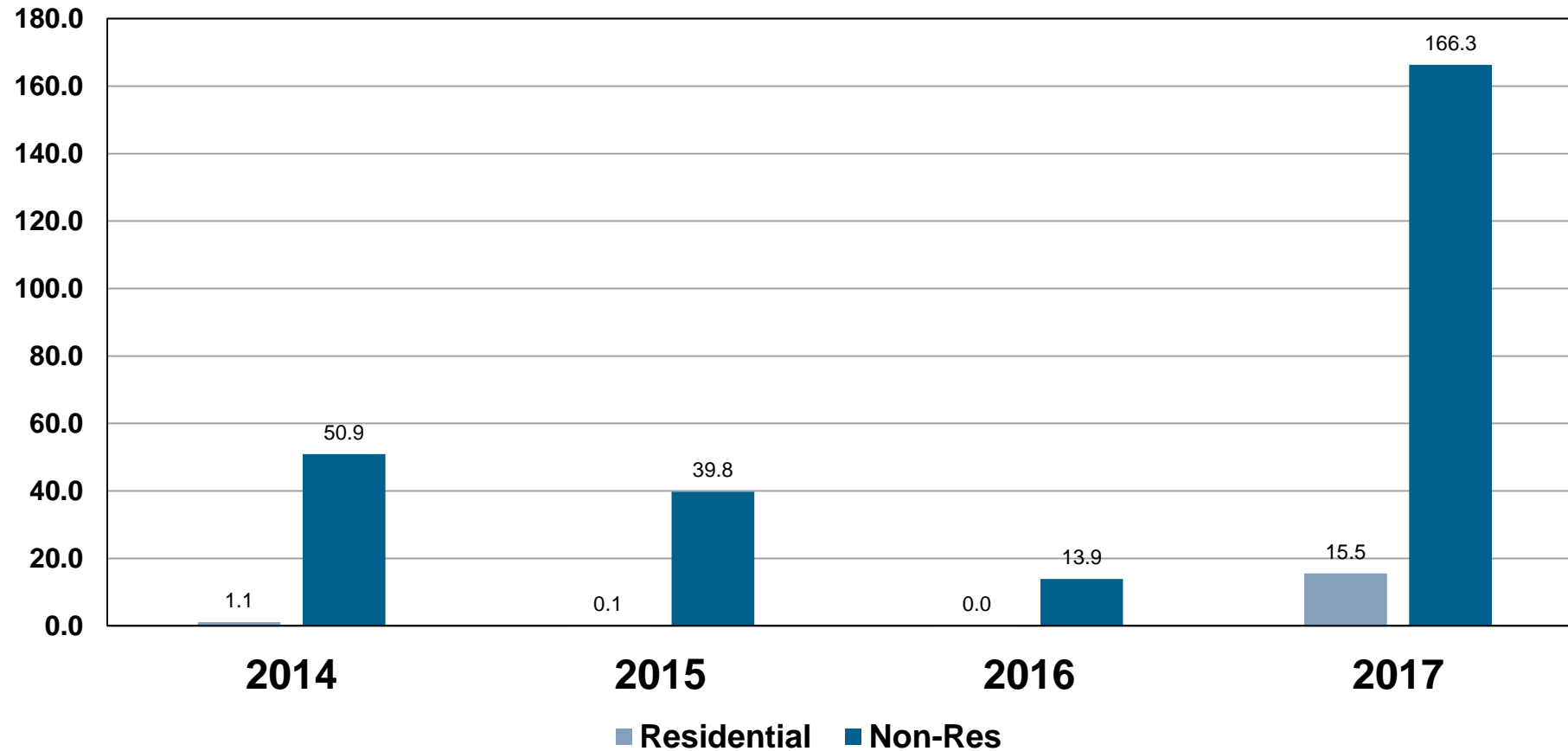
# Applications as of Sept 12, 2017

## Number of Applications by Program Year



# Applications as of Sept 12, 2017

## Energy Storage Capacity (MW)



# Current as of: September 12, 2017

## Generation Budget

	CSE	SCE	SCG	PG&E
Step Status	Open	Open	Open	Open
Active Step	1	1	1	1
Step Opening Date	May 1, 2017	May 1, 2017	May 1, 2017	May 1, 2017
Days in Step	134	134	134	134
Authorized Collections	\$5,718,173.52	\$13,464,605.80	\$3,796,734.23	\$16,757,415.49
Reallocations	\$4,611.00	\$0	\$2,560,000.00	\$0
Authorized Rollover	\$0	\$0	\$0	\$0
Allocated Funds	\$912,000.00	\$967,500.00	\$0	\$5,476,500.00
<b>Available Funds</b>	<b>\$4,810,784.52</b>	<b>\$12,497,105.80</b>	<b>\$1,236,734.23</b>	<b>\$11,280,915.49</b>





# Current as of: September 12, 2017

## Large Storage Budget

	CSE	SCE	SCG	PG&E
Step Status	Open	Will Open Soon	Open	Open
Active Step	2	3	2	2
Step Opening Date	June 5, 2017	TBD	June 5, 2017	June 5, 2017
Days in Step	99	TBD	99	99
Authorized Collections	\$14,336,533.78	\$34,226,537.27	\$9,872,805.77	\$43,925,956.50
Reallocations	\$247,255.00	\$0	\$0	\$0
Authorized Rollover	\$836,783.31	\$1,247,930.68	\$382,682.99	\$2,315,372.34
Allocated Funds	\$12,369,468.09	\$0	\$3,825,056.00	\$31,172,492.62
<b>Available Funds</b>	<b>\$3,051,104.00</b>	<b>\$35,474,467.95</b>	<b>\$6,430,432.76</b>	<b>\$15,068,836.22</b>



# Current as of: September 12, 2017

## Small Storage Budget

	CSE	SCE	SCG	PG&E
Step Status	Will Open Soon	Open	Open	Open
Active Step	3	2	2	2
Step Opening Date	TBD	June 5, 2017	June 5, 2017	June 5, 2017
Days in Step	TBD	99	99	99
Authorized Collections	\$1,982,160.05	\$4,817,399.17	\$1,362,819.84	\$6,044,159.38
Reallocations	\$0	\$0	\$0	\$0
Authorized Rollover	\$89,408.92	\$74,864.53	\$44,925.00	\$47,911.32
Allocated Funds	\$0	\$2,494,491.78	\$686,689.38	\$3,093,169.10
<b>Available Funds</b>	<b>\$2,071,568.97</b>	<b>\$2,397,771.92</b>	<b>\$721,055.46</b>	<b>\$2,998,901.60</b>



# Common Application Errors

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- Unidentifiable Application Fee Checks
- Reservation Request Form
  - PV system details not provided on RRF
  - PV costs included in the Total Eligible Project Costs (TEPC)
  - CA Manufacturer Adder and Status
  - ITC (Investment Tax Credit)
  - Acceptable signatures on program documents
- Executed Contract and Warranty
- Energy Efficiency Audit
- Preliminary Monitoring Plan (PMP) Resources



# Common Application Errors: Unidentifiable Application Fee Checks

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- **Application Fee Checks** must be linked to a specific project. Please include one or more of the following to help the PA identify to which project the check should be applied:
  - Host Customer Name as it appears on the utility bill and Reservation Request Form
  - Site Address as it appears on the utility bill and Reservation Request Form
  - SGIP Project ID if possible, ex) SCE-SGIP-2017-0000 OR Draft ID (located on the print version of the RRF)



# Common Application Errors: PV System Details Not Provided

Is there, or will there be by the time of inspection, other self-generation or storage equipment onsite? \*

Yes  No

Is the system anticipated to be charged at least 75% from renewables? \*

Yes  No

Check the box to confirm that the system will be operated in accordance with the program's minimum hours requirement. \*



Save

Notes

Add Note

Equipment Details - Energy Storage



Other Onsite System Information



<u>Technology</u>	<u>Make/Model</u>	<u>Project Code</u>	<u>Installed</u>	<u>Energy Storage Capacity</u>	<u>SGIP Incentivized Systems Total Rated Capacity</u>
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(+) Add More SGIP Incentivized Equipment

Previous SGIP Generator Capacity:

0 kW

Previous SGIP Storage Capacity:

0 kWh

Non-Incentivized Systems

<u>Technology</u>	<u>Make/Model</u>	<u>Project Code</u>	<u>Installed</u>	<u>Energy Storage Capacity</u>	<u>Total Rated Capacity</u>
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Photovoltaic	Manufacturer / Model	2016	kWh	10 kW
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(+) Add Onsite Equipment

# Common Application Errors: PV System Costs, CA Manufacturer, & ITC

Other Onsite System Information 

Utility Information 

Project Finance 

## Project Costs

Total Eligible Project Costs (TEPC) \*

\$ 1,000

Ineligible Project Costs

\$ 20,000

Claiming Eligibility for the 20% CA Manufacturer Adder? \*

To receive the adder, at least 50% of equipment costs must be attributed to an approved SGIP CA manufacturer. The eligible manufacturer must be approved by the ICF stage to retain the adder.

Yes  No

Are you or any affiliated entity taking the Federal Investment Tax Credit (ITC) for this project? \*

Yes  No

# Common Application Errors: CA Manufacturer & ITC

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- CA Manufacturer Status and 20% adder being claimed for companies NOT approved as CA Manufacturer
  - The adder should only be claimed for manufacturers that meet the SGIP CA Manufacturer requirements. The adder will be removed by the PA if the manufacturer listed on the application does not meet the requirements.



# Common Application Errors: CA Manufacturer & ITC

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- ITC must be entered as a percentage (XX%), NOT a decimal (.XX) in order to calculate correctly.
  - The PA will adjust the calculation if entered incorrectly, which could impact the incentive rate.





# Common Application Errors: Host Customer and Signatures

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- Acceptable signatures on program documents
  - Only the utility customer of record (the customer listed on the utility bill) is authorized to claim an incentive through SGIP. If a person other than the utility customer is listed as the Host Customer, a letter of explanation must be provided to the PA (SGIP Handbook V.2 Section 4.1.1)
  - SoCalGas does NOT accept electronic signatures of any kind
  - PGE, SCE, and CSE accept wet signatures and verifiable e-signatures only (e.g. DocuSign, VeriSign)



# Common Application Errors: Incomplete Utility Information

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- **Incomplete Electric Utility Bills and Load**
  - “All applications must include a copy of a recent electric utility bill indicating the account number, meter number, Site address, and Host Customer name” (SGIP Handbook V.2 p. 42).
  - Insufficient or incomplete load documentation is provided. The Applicant must provide the previous 12 months of utility bills or, in some territories, load documentation provided directly by the utility.
  - Center for Sustainable Energy required a 3<sup>rd</sup> Party Letter of Authorization be executed at RRF to verify certain utility details. This form must be fully initialed and signed by the customer prior to submitting the RRF.



# Common Application Errors: Executed Contract

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- Contract must clearly identify the scope of work and equipment costs
- 10 Year Service Warranty is often insufficient
  - “All storage systems are required to include a minimum 10 year service warranty” (SGIP Handbook V.2 pg. 46).
  - There is often no reference to the required preventative maintenance agreement and performance guarantee.
  - If utilizing a manufacturer warranty, these must be provided as well as a sufficient installation warranty.



# Common Application Errors

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- Preliminary Monitoring Plan (PMP)
  - The majority of PMPs to date have not been sufficient in meeting the new SGIP requirements.
  - The PAs have created a **PMP Template** and a **PMP Template with Examples** to help guide Applicants/Developers in creating their individual project PMPs.
    - Find the “Energy Storage Preliminary Monitoring Plan Template” @ <https://www.selfgenca.com/home/resources/>
  - Refer to Section 5.4.1 of the SGIP Handbook for PMP requirements.

## Equipment Specifications

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- The Program Administrators have created a Technical Working Group Committee consisting of technical leads and administrators from each PA territory, and SGIP's statewide consultant, AESC. The goal of the Committee is to streamline technical reviews, ensure statewide consistency, and provide unified messaging to applicants/manufacturers.
- Technical Working Group Committee meets weekly to review and discuss manufacturer specifications submitted for multiple applications, consider new SGIP equipment for eligibility, and discuss other technical issues.
- The single biggest issue preventing equipment specification approval is missing component specifications that verify energy capacity and power capacity ratings at a specific discharge duration.
  - *“Manufacturer equipment specifications for all major components of the system, such as the storage component, as well as the inverter, DC-DC converter, controller and/or additional system components when applicable, are required. Rated capacity (kW), energy capacity (kWh), and round trip efficiency for the storage system must be provided.” (pg. 44)*
- The equipment specifications submitted with each project must justify the values on the RRF and the ES Sizing Worksheet.



An aerial, black and white photograph of the New York City skyline. The Empire State Building is the central focus, standing tall among other skyscrapers. The city extends to the horizon under a cloudy sky. A white rectangular box with rounded corners is superimposed over the middle of the image, containing the text 'SGIP ONLINE DATABASE WORKSHOP' in white, uppercase, sans-serif font.

# SGIP ONLINE DATABASE WORKSHOP



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SEPTEMBER 10, 2017

# AGENDA

PRESENTED BY  
**ANDREA VAS**  
ENERGY SOLUTIONS



## TRENDS

APPLICATION SUBMISSIONS

SUM OF INCENTIVES REQUESTED

SMALL RESIDENTIAL STORAGE

LARGE-SCALE STORAGE

GENERATION

## TIPS & TRICKS

EXCEL CALCULATOR MODEL

USER ACCOUNT MANAGEMENT

DRAFT APPLICATIONS

COMMUNICATIONS RECORD

DOCUMENT UPLOADS

STAGES WORKFLOW

## QUESTIONS & ANSWERS

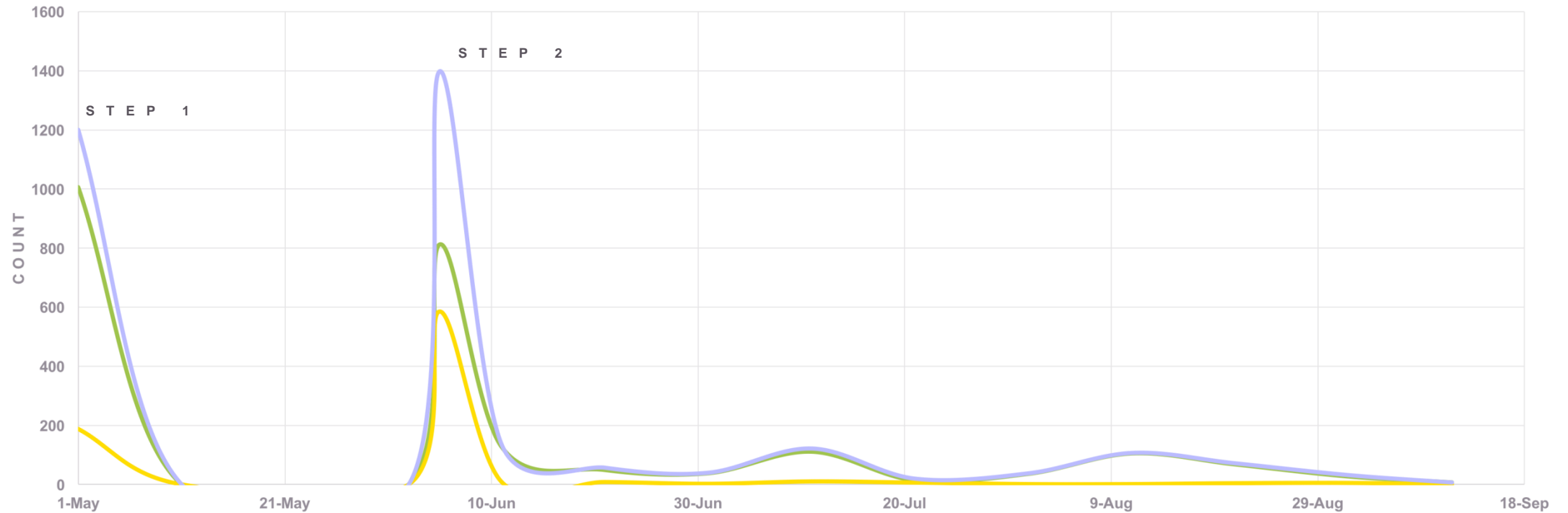




# TRENDS



# STORAGE + GENERATION COUNT OF APPLICATION SUBMITTED



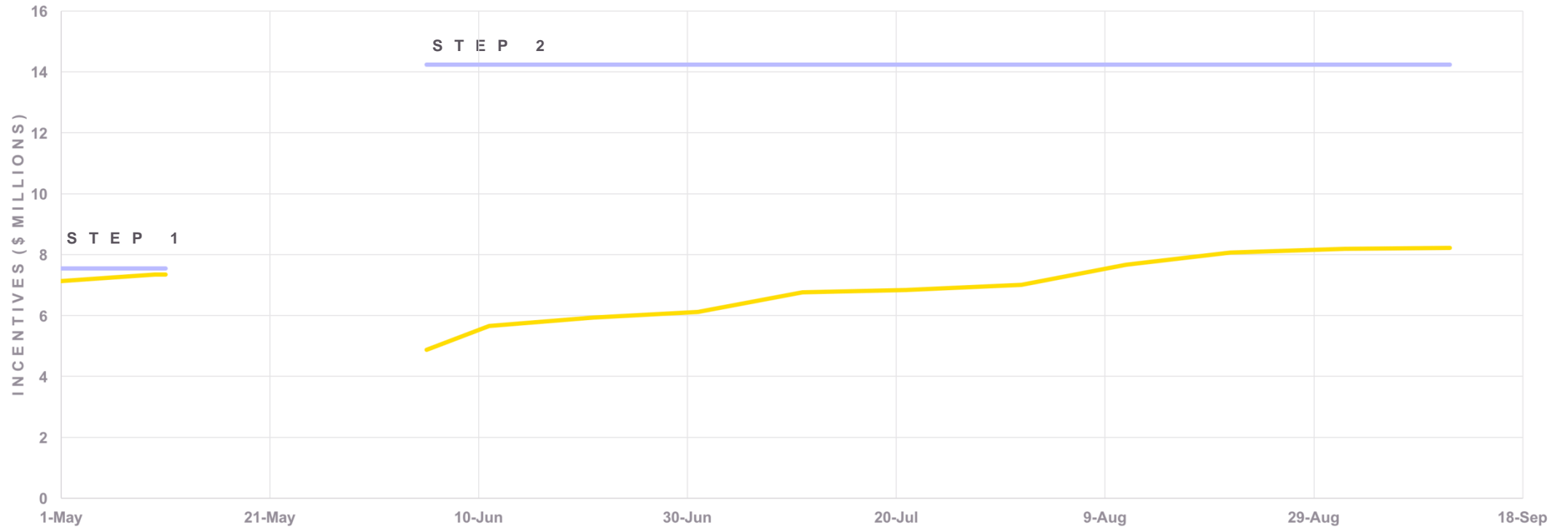
SMALL  
RESIDENTIAL  
STORAGE

LARGE-SCALE  
STORAGE

ALL



# SMALL RESIDENTIAL STORAGE SUM OF INCENTIVES REQUESTED

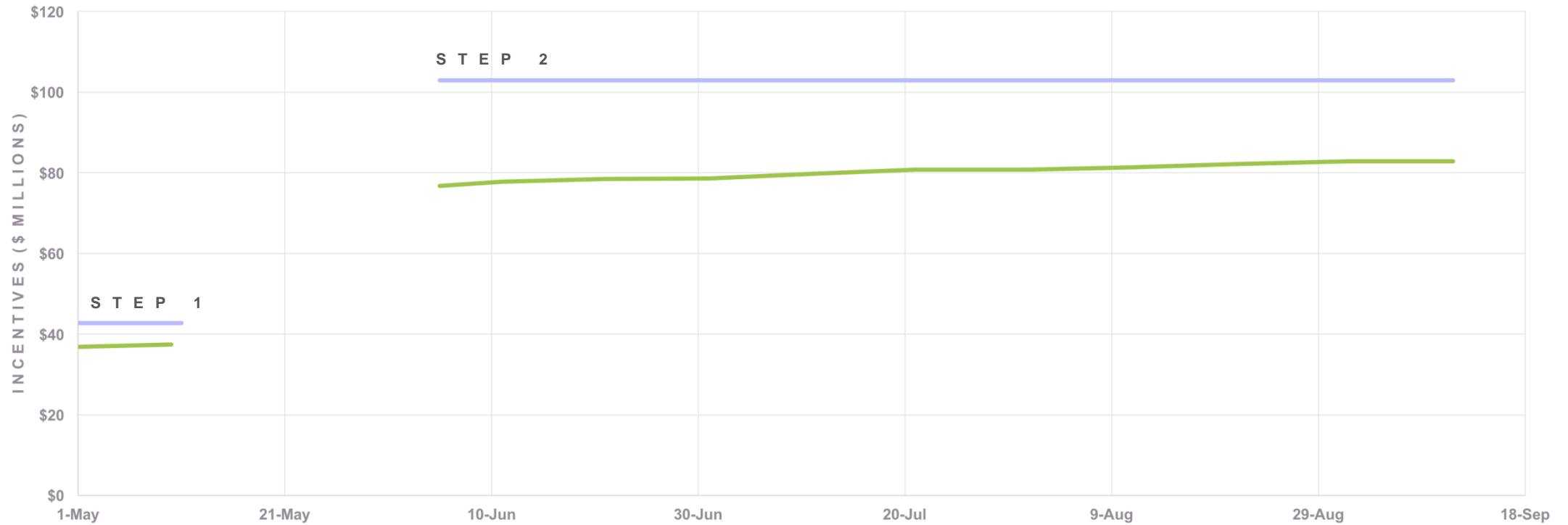


SMALL  
RESIDENTIAL  
STORAGE

BUDGET



# LARGE-SCALE STORAGE SUM OF INCENTIVES REQUESTED

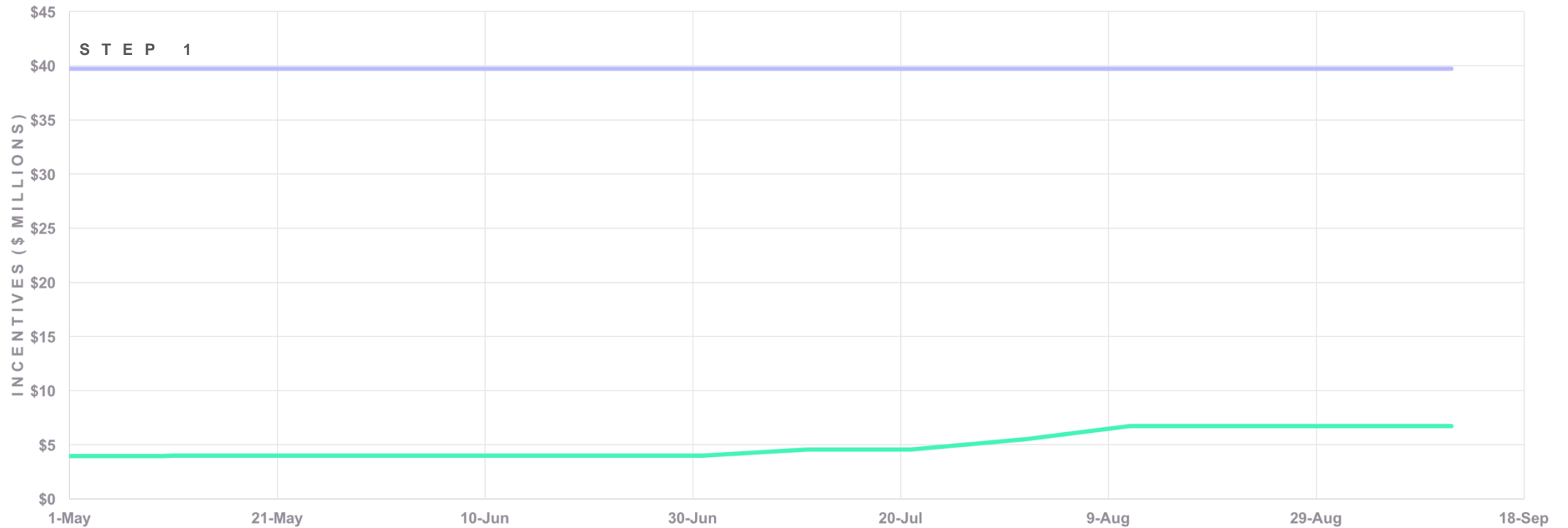


LARGE-SCALE  
STORAGE

BUDGET



# GENERATION SUM OF INCENTIVES REQUESTED



GENERATION

BUDGET





A low-angle, upward-looking photograph of several tall skyscrapers in a city. The buildings are made of dark, textured materials with many windows. The sky is a pale, overcast grey. A white rectangular box is centered horizontally across the middle of the image, containing the text 'TIPS & TRICKS' in white, uppercase, sans-serif font.

TIPS & TRICKS



SYSTEM  
CONFIGURATION



ESTIMATED  
RESULTS

EXCEL DOWNLOAD

# INCENTIVE CALCULATOR MODEL

- OPTIMIZE SYSTEM CONFIGURATION AND INCENTIVE OPTIONS
- AVAILABLE FOR GENERATION AND STORAGE
- FIND IT IN THE RESOURCES PAGE UNDER SECTION 8





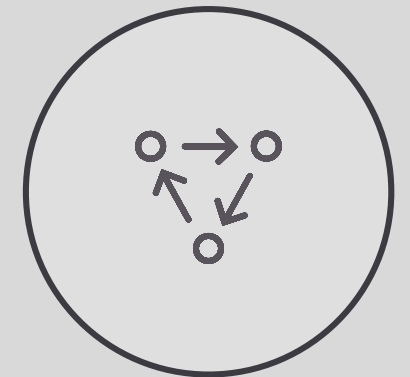
COMPANIES & HOUSEHOLDS

# USER ACCOUNT MANAGEMENT

- ONE ACCOUNT FOR EACH EMPLOYEE OR FAMILY MEMBER. DON'T SHARE PASSWORDS
- SUPPORT STAFF CANNOT PROVIDE INFORMATION UNLESS REGISTERED
- CHANGE YOUR PASSWORD WITH THE "FORGOT PASSWORD?" LINK
- REMEMBER TO DEACTIVATE USER ACCOUNTS



MULTIPLE USERS



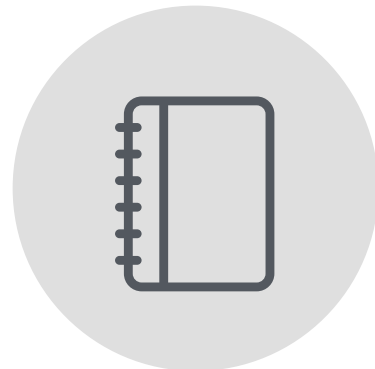
ONE DASHBOARD



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OPTIMIZE  
**DRAFT APPLICATIONS**

- ① RECYCLE UNUSED DRAFTS –  
SIMPLY REPLACE THE INFORMATION
- ② "COPY FROM" OPTION –  
AVOID RE-ENTERING CONTACT INFORMATION
- ③ UPLOAD A NEW, SIGNED RRF/PPM/ICF FORM  
IF YOU CHANGE SOMETHING ON THE APPLICATION
- ④ DOWNLOAD FULL EXPORT FROM DASHBOARD







REFERENCE



CONFIRMATION

REFERENCE HISTORICAL

# COMMUNICATIONS RECORD

- DOWNLOAD ANY TIME  
AVAILABLE TO ALL COMPANY/HOUSEHOLD USERS
- CONFIRM MISSING INFORMATION LIST
- RESPOND IN YOUR EMAIL SERVER  
KEEP THE @SELFGENCA.COM EMAIL CC'D



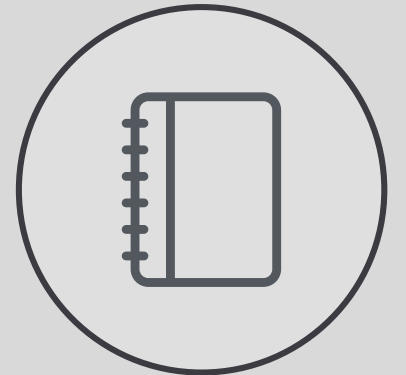
MANAGE & ORGANIZE

# DOCUMENT UPLOADS

- UPLOAD DOCUMENTS ANY TIME OR STATUS  
INFORM YOUR PA VIA EMAIL
- EACH UPLOAD IS A NEW VERSION  
ONLY NEWEST VERSION IS REVIEWED
- MERGE MULTIPLE PDF'S TOGETHER  
OR COMPRESS FILES INTO A .ZIP FILE



MANAGE VERSIONS



COMPRESS  
MULTIPLE FILES



RRF + PPM + ICF

# STAGES WORKFLOW

RESERVATION  
REQUEST FORM

CREATE  
NEW



DRAFT



(TECH)  
REVIEW



SUSPENDED



CONFIRMED/  
CONDITIONAL  
RESERVATION

PROOF OF PROJECT  
MILESTONE

BEGIN PPM  
DRAFT



DRAFT



(TECH)  
REVIEW



SUSPENDED



CONFIRMED

INCENTIVE CLAIM  
FORM

BEGIN ICF  
DRAFT



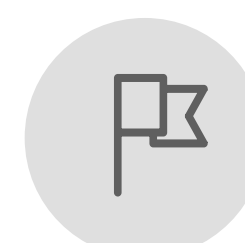
DRAFT



(TECH)  
REVIEW



INSPECTION



SUSPENDED



PAYMENT





# QUESTIONS & ANSWERS



An aerial photograph of Central Park in New York City, surrounded by dense urban development. A large white circle is superimposed over the center of the park, framing the text.

THANK YOU

A V A S @ E N E R G Y - S O L U T I O N . C O M



### **Dara Salour**

**Technical Advisor to SGIP  
AESC**

**Is the metering system generating status signals when the energy storage system is charging or discharging?**

**Do you meter at more granular level than 15 minutes?**

**Is there a threshold for idle power consumption and if so what is that threshold?**

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# **REGULATORY UPDATE**

## Resolution E-4887 – CA Developer Eligibility

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- ◆ Filed August 25, 2017
- ◆ Comments due on September 18, 2017
- ◆ Expected decision results on September 28, 2017 at the CPUC's Business Meeting
- ◆ The Energy Division (ED) proposed a revised definition of developer used in SGIP based on Step 1 results
- ◆ Defines what are considered "Developer Activities"
- ◆ Addresses multiple developers participating in a single project
- ◆ Proposed ED to share oversight with SGIP PA's on developer eligibility



## Proposed Decision 12-11-005 – Disadvantaged Communities

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- ◆ Assigned Commissioner's Ruling on June 2, 2017 introduced the change of establishing a disadvantaged community budget for SGIP
- ◆ Proposed Decision Filed August 25, 2017
- ◆ Opening Comments were due to CPUC on September 14, 2017
- ◆ Expected decision results on September 28, 2017 at the CPUC's Business Meeting

## Disadvantaged Communities continued

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- ◆ SGIP PA's comments were to clarify eligibility language and time extension for implementation
- ◆ Proposed Changes to SGIP:
  - 25% of collected funds for *energy storage* projects shall be reserved for the new SGIP Equity Budget for projects located in Disadvantaged Communities (DAC's)
  - This change to be effective beginning Energy Storage Step 3
  - DAC's have been identified as these type of entities located in any census tract that ranks in the statewide top 25% most affected census tracts (CalEnviroScreen):
    - ◆ state and local government agencies
    - ◆ educational institutions
    - ◆ non-profits
    - ◆ small businesses
    - ◆ low-income residents (regardless if they are located in a DAC)

## Residential battery backup-only issue

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**SGIP's founding Decision 01-03-073, March 27, 2001:** (Appendix, pg 23)

The self-generation incentives provided through these programs are intended to:

- encourage the deployment of distributed generation in California to reduce the peak electric demand;**12**
- give preference to new renewable energy capacity; and
- ensure deployment of clean self-generation technologies having low and zero operational emissions

Footnote 12:

***“For this reason, self-generators installed primarily as backup or emergency power are not eligible for the program.”***

## Residential battery backup-only issue

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### CPUC Resolution E-4717, May 21, 2015:

- “Since 2012 the SGIP program administrators (PAs) have received many residential AES applications and have observed that some are marketed solely as backup systems and may be installed with the intent to use them solely for this purpose.” (pg 2)
- “Applicants whose reservations are confirmed following the approval date of this advice letter (AL) shall be required to fill out and sign an “Affidavit” which spells out system operating and data reporting requirements.”

## Residential battery backup-only issue

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### CPUC Decision 16-06-055, June 23, 2016:

- SGIP Handbook Section 5.3.3 *Operational Requirements*
- Commercial systems are required to discharge a minimum of 130 full discharges per year. Residential systems are required to discharge a minimum of 52 full discharges per year. A “full discharge” is the equivalent of discharging the SGIP-incentivized energy capacity, whether it is during a single or multiple discharges.

# APPENDIX

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## Residential battery backup-only issue

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**Residential Affidavit:** Fulfill either of the two following conditions --

**Option A:** the Host Customer is on a **TOU tariff**, dynamic tariff (e.g. PG&E's SmartRate or SDG&E's Reduce Your Use), or agrees to integrate load through the California Independent System Operator's Proxy Demand Response, or equivalent tariff, prior to receiving the SGIP incentive and for five (5) years thereafter. Note that in the event that the Host Customer changes to a non-TOU tariff or is no longer enrolled in a demand reduction program, the energy storage System Owner is required to notify the Program Administrator within 30 days of change, and will be subject to Option B for the required five year period.

**Option B:** the Host Customer and/or System Owner agrees, for a minimum period of **five (5) years**, to discharge the energy storage system in an amount equivalent to **52 complete cycles** per year of the incentivized energy capacity, which is defined as two hours of discharge at the SGIP incentivized power capacity rating, with discharges occurring **during peak hours** or peak day events (such as those called by PG&E's SmartRate program or SDG&E's Reduce Your Use), of the applicable IOU service territory.