California Solar Initiative Thermal Program

Quarterly Progress Report

(October 1 – December 31, 2013)

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1. Executive Summary

1.1. Introduction

Southern California Gas Company (SCG), on behalf of the California Solar Initiative (CSI) Thermal (CSI-Thermal) Program Administrators (PAs)[1], submits this Fourth Quarter (Q4) 2013 Progress Report for the CSI-Thermal Program (Report), in compliance with California Public Utilities Commission (CPUC or Commission) Decision (D.) 10-01-022, which requires the PAs to submit quarterly progress reports to the CPUC Energy Division.[2]

This report provides an overall qualitative and quantitative review of the CSI-Thermal Program from January 1, 2010 through December 31, 2013. It also highlights the program's progress and achievements for the quarter. The report has been divided into several sections covering topics such as program budget, eligibility requirements, incentive structure, program expenditures, market facilitation activities, and regulatory updates.

1.2. Key Report Highlights

Amendments proposed by the PAs via Advice Letter to the CSI-Thermal Handbook to incorporate solar pool heating systems into the CSI-Thermal Program became effective as of October 30, 2013. The program engineers, working with TESS, LLC, developed the pool model based on the TRNSYS Type 344 as required in D.13-08-004. However, test results from the model resulted in larger than anticipated performance variations due to wind impact on unglazed collectors. The PAs therefore requested additional time to correct this issue, and the Commission graciously approved a 30-day delay in the implementation of the solar pool heating program from December 14, 2013 to January 14, 2014 via a letter from Paul Clanon, Executive Director dated December 16, 2013.

2. Introduction

2.1. Program Background

In January 2007, the CPUC launched the CSI, a $2.16 billion ratepayer-funded incentive program with a goal of installing 1,940 megawatts (MW) of new solar generation and creating a sustainable solar industry by 2016.[3] State law allows up to $100.8 million of CSI funds to be used for incentives for solar thermal technologies that displace electricity usage, but the CPUC deferred eligibility for allowing solar water heating (SWH) technologies in the CSI until a pilot program for SWH was

[1] The CSI-Thermal PAs are Pacific Gas and Electric Company (PG&E), California Center for Sustainable Energy (CCSE), Southern California Edison Company (SCE), and Southern California Gas Company (SCG).

[2] D.10-10-022, Ordering Paragraph No. 13 and Appendix A.

[3] Public Utilities Code § 2851, enacted by Senate Bill (SB) 1 (Murray), Chapter 132, Statutes of 2006

conducted in the service territory of San Diego Gas & Electric Company (SDG&E). Starting in July 2007, CCSE administered a $2.59 million pilot program for SWH incentives in SDG&E's service territory (Pilot Program). In D.08-06-029, the Commission extended the Pilot Program until the earlier of December 31, 2009, or when the budget was exhausted.

In 2007, Governor Arnold Schwarzenegger signed Assembly Bill (AB) 1470 (Stats. 2007, ch. 536),[4] which authorized the CPUC to create a $250 million incentive program to promote the installation of 200,000 natural gas-displacing SWH systems on homes and businesses by 2017. AB 1470 required the CPUC to evaluate data from the SWH Pilot Program and determine whether a SWH program was "cost effective for ratepayers and in the public interest" before designing and implementing an incentive program for gas customers.

On January 21, 2010, the CPUC established the CSI-Thermal Program,[5] allocating funds for both natural gas-displacing and electric-displacing SWH and other solar thermal technologies, in the service territories of California's major investor-owned utilities. The CPUC established the incentive structure, the program administration details, and other key CSI-Thermal Program rules. The CPUC designated PG&E, SCG, SCE, and CCSE (for the SDG&E service territory) as the PAs for the CSI-Thermal Program. The PAs launched the single-family residential program in May 2010 and the commercial/multi-family program in October 2010.

On October 13, 2011, the CPUC issued D.11-10-015, effective on October 6, 2011, which authorized the low-income component of the CSI-Thermal Program. The $25 million budget for CSI-Thermal low-income SWH incentives is funded by collections from gas ratepayers pursuant to AB 1470, as previously established in D.10-01-022. The low-income program was launched in March 2012.

On August 6, 2012, the Commission issued D.12-08-008, effective on August 2, 2012, which modified the incentive structure for the single-family and multi-family/commercial mainstream programs. The new rates were incorporated into the program on October 4, 2012, and were applied to projects that were in application review as of July 4, 2012.

On March 6, 2013, the CPUC issued D.13-02-018, effective February 28, 2013. This decision modified the CSI-Thermal Program to provide incentives to process heat applications, solar cooling technologies, space heating technologies and systems that combine multiple applications. In addition, this decision modified the way rebates are paid to certain systems under the program by creating a performance-based incentive system that will pay rebates based on actual metered energy delivered to the facility.

On August 19, 2013, the CPUC issued Decision 13-08-004, effective August 15, 2013. The decision modified the CSI-Thermal Program to provide incentives for solar pool heating systems for all

[4] Public Utilities Code § 2860-2867

[5] D.10-01-022

applications with exception to single-family residential systems. The decision required the PAs to develop a pool calculator based on the TRNSYS Type 344 model and incorporate the solar pool heating program into the existing commercial/multi-family incentive budget

2.2. Program Goals

The CSI-Thermal Program is designed to significantly increase the adoption rate of SWH technologies in the California marketplace. The program strategy and design principles address the barriers to growth, namely installation costs, lack of public knowledge about SWH, permitting costs and requirements, and a potential shortage of experienced installers. As established in D.10-01-022, the primary goals of the CSI-Thermal Program include the following:

- Significantly increase the size of the SWH market in California by increasing the adoption rate of SWH technologies, including:
    - The installation of natural gas-displacing systems that displace 585 million therms (equivalent to 200,000 single-family residential systems) over the 25-year life of the systems;
    - The installation of electric-displacing SWH systems that displace 275.7 million kilowatt hours (kWh) per year (equivalent to 100,800 single-family residential systems); and
    - An expansion of the market for other solar thermal technologies that displace natural gas and electricity use, in addition to SWH.
- Support reductions in the cost of SWH systems of at least 16 percent through a program that increases market size and encourages cost reductions through market efficiency and innovation;
- Engage in market facilitation activities to reduce market barriers to SWH adoption, such as high permitting costs, lack of access to information, and lack of trained installers; and
- Increase consumer confidence and understanding of SWH technology and its benefits.

2.3. Program Budget

The total incentive budget (excluding administrative, marketing, and measurement and evaluation budget allocations) for the CSI-Thermal Program is approximately $280.8 million over the life of the program. Of this total, $180 million is allocated to natural gas-displacing SWH systems, as authorized by AB 1470, and up to $100.8 million may be used to fund electric-displacing systems subject to overall CSI budget availability, as authorized by Senate Bill (SB) 1. There is also an additional $25 million incentive budget dedicated to low-income single-family and multi-family residences in the service territories of PG&E, SCG and SDG&E, as established in D.10-01-022.

The total incentive budget (excluding administrative, marketing, and measurement and evaluation budget allocations) for the CSI-Thermal Program is approximately $280.8 million over the life of the program. Of this total, $180 million is allocated to natural gas-displacing SWH systems, as authorized by AB 1470, and up to $100.8 million may be used to fund electric-displacing systems subject to overall CSI budget availability, as authorized by Senate Bill (SB) 1. There is also an additional $25 million incentive budget dedicated to low-income single-family and multi-family residences in the service territories of PG&E, SCG and SDG&E, as established in D.10-01-022.

In the CSI-Thermal Program, incentive dollars totaling $180 million for natural gas-displacing systems are allocated between two customer classes, single-family residential and multi-family/commercial. In D.12-08-008, the Commission updated the budget allocation as follows:

- 45 percent of the total incentive budget is reserved for single-family residential customer SWH systems; and

- 55 percent of the total incentive budget is reserved for multi-family/commercial SWH systems. Funds may be moved from the multi-family/commercial budget to the single-family residential budget, but not vice versa.

The incentive budget is split proportionately among the PAs based on the size of their respective gas and electric sales.

Table 1 presents the incentive allocation percentage and budget allocated to each PA for the natural gas-displacing SWH systems. Table 2 presents the incentive allocation percentage and budget allocated to each PA for the electric/propane-displacing SWH systems.

The incentive budget for the natural gas-displacing portion of CSI-Thermal Program will operate until the earlier of: (i) allocation of all funds available from the program's incentive budget; or (ii) until January 1, 2018. The incentive budget for the electric/propane-displacing portion of the program is available until the earlier of: (i) the budget caps have been reached; (ii) the CSI General Market Program budget has been exhausted, or (iii) January 1, 2017.

The $25 million natural-gas low-income incentive budget is allocated among CCSE, PG&E, and SCG in the same proportions as the total CSI-Thermal natural gas-displacing program presented in Table 1. Single-family and multi-family projects have no specific low-income incentive allocations. Incentives for low-income projects will be available until the earlier of: (i) the incentive budget is fully expended; or (ii) January 1, 2018. Table 3 displays the incentive allocation percentage and budget for each PA for the low-income natural gas-displacing SWH systems.

Table 1: Incentive Allocation per PA for Natural Gas-Displacing Systems

PA	Budget Allocation	Total Incentive Budget (in millions)
PG&E	39.0%	$70.2
CCSE	10.0%	$18.0
SCG	51.0%	$91.8
Total	**100.0%**	**$180.0**

Table 2: Maximum Incentive Allocation per PA for Electric/Propane-Displacing SWH Systems

PA	Budget Allocation	Maximum Incentive Budget (in millions)
PG&E	43.7%	$44.0
CCSE	10.3%	$10.4
SCE	46.0%	$46.4
Total	**100.0%**	**$100.8**

Table 3: Low-Income Incentive Allocation per PA for Natural Gas-Displacing SWH Systems

PA	Budget Allocation	Maximum Incentive Budget (in millions)
PG&E	39.0%	$9.75
CCSE	10.0%	$2.50
SCG	51.0%	$12.75
Total	**100.0%**	**$25.00**

2.4. Incentive Structure

One of the primary goals of the CSI-Thermal Program is to lower the cost of SWH technology for the System Owner through incentives. Incentive rates decline over the life of the program in four steps to facilitate market transformation.

Natural gas-displacing incentives decline from step to step in each service territory when the total incentive amount reserved is equal to the budget allocation for the given step. If a PA receives applications accounting for more dollars than what is left in the budget allocation for a given step, a lottery may determine which projects receive the higher incentive level. Table 4 presents the dollar amount paid per therm displaced in each step and the total program budget allocation per step excluding the low-income budget as noted in Section 2.3 of this report.

Table 4: Total Natural Gas Budget Allocation per Incentive Step

Effective January 1, 2013

Step	Customer Class	Incentive per annual therm displaced	Maximum Incentive per System
1	Single-Family	$18.59	$2,719
	Commercial/Multi-family	$14.53	$500,000
	Swimming pools	$7.00	$500,000
2	Single-Family	$13.11	$1,919
	Commercial/Multi-family	$9.88	$500,000
	Swimming pools	$7.00	$500,000
3	Single-Family	$7.69	$1,125
	Commercial/Multi-family	$6.55	$500,000
	Swimming pools	$5.00	$500,000
4	Single-Family	$3.23	$474
	Commercial/Multi-family	$3.13	$500,000
	Swimming pools	$3.00	$500,000

As incentives decline under the natural gas-displacing program, a corresponding step reduction occurs in the electric/propane-displacing incentive structure. Table 5 shows the electric- and propane-displacing rates for each of the four steps. Electric- and propane-displacing SWH installations count against the MW trigger in Step 10 of the General Market CSI PV Program. If the Step 10 budget is insufficient, the PAs may use funds from Step 9.

Table 5: Electric/Propane-Displacing System Incentive Steps

Effective July 4, 2012

Step	Customer Class	Electric/Propane-Displacing Incentive ($/kWh)	Maximum Incentive per System
1	Single-Family	0.54	$1,834
	Commercial/Multi-family	0.42	$250,000
2	Single-Family	0.38	$1,311
	Commercial/Multi-family	0.29	$250,000
3	Single-Family	0.22	$752
	Commercial/Multi-family	0.19	$250,000
4	Single-Family	0.10	$329
	Commercial/Multi-family	0.09	$250,000

Incentive step changes move independently in each program territory[6] and for each customer class. Incentives are paid on a first come, first served basis. The most current information on incentive step status per customer class is posted on www.csithermal.com/tracker.

The Low-Income program has a separate incentive step structure from the mainstream program, as shown in Table 6. The current incentive step level is the same as the current incentive step in the natural gas portion of the mainstream CSI-Thermal Program. Currently, the mainstream natural gas single-family program is in Step 1 for all PA territories; therefore, the low-income single-family program is also in Step 1.

Table 6: Low-Income Single-Family and Multi-family Natural Gas Incentive Steps

Step Level	Single-Family Low-income Incentive per therm displaced	Incentive Cap for Single-Family Low-income Projects	Multi-family Low-Income Incentive per therm displaced	Incentive Cap for Multi-family Low-income Projects
1	$25.64	$3,750	$19.23	$500,000
2	$20.52	$3,000	$15.39	$500,000
3	$15.38	$2,250	$11.53	$500,000
4	$9.40	$1,376	$7.05	$500,000

2.5. Program Eligibility

Eligibility for the CSI-Thermal Program is described in detail in the CSI-Thermal Program Handbook.[7] A few key eligibility requirements are highlighted below:

- Customer site must be within the service territories of SCG (for natural gas only), PG&E, SCE (for electric only), or SDG&E.
- Single-family residential SWH systems must have a Solar Rating and Certification Corporation (SRCC) or International Association of Plumbing and Mechanical Officials (IAPMO) Standard-300 System Certification.[8]
- Solar collectors used in multi-family/commercial water heating must have SRCC or IAPMO Standard-100 Collector Certification.

[6] SCE incentive step changes will correspond with SCG gas incentive step changes for each customer class.

[7] The CSI-Thermal Handbook is located at http://gosolarcalifornia.org/documents/CSI-Thermal_Handbook.pdf

[8] D.11-11-004 was approved on November 18, 2011 to modify D.10-01-022 regarding certification standards for SWH systems. This decision allows systems certified to the OG-300 standards by IAPMO to be eligible for CSI-Thermal Program incentives along with those certified by SRCC.

- All components must be new and unused (with exceptions). All systems must have freeze and stagnation protection.
- For single-family projects, all Domestic Hot Water (DHW) end-uses are eligible.[9]
- For multi-family/commercial projects, eligible end uses include domestic hot water, commercial process heat, space heating, absorption chilling, pool heating applications, and combination systems.[10] Rebates are available for qualifying natural gas-and electric-displacing systems that were installed within 24 months after the date on the final signed-off permit. Propane-displacing systems are eligible for a CSI-Thermal Program incentive if a final permit was signed-off after June 14, 2011.
- SWH contractor or self-installer must complete a one-day mandatory training offered by the PAs.
- For specific details regarding low-income eligibility requirements, please see the CSI-Thermal Program Handbook.

3. Program Expenditures

From program inception through December 31, 2013, CSI-Thermal Program expenditures totaled $35,815,547. Table 7 illustrates the detailed expenditures by PA followed by a breakdown of expenses specific to the natural gas and electric/propane-displacing programs for the reporting period as represented in Table 8 and Table 9.

Program expenditures consist of, but are not limited to, administration activities, such as application processing, continued enhancement of the statewide online database, mandatory contractor and self-installer training, local and statewide marketing efforts, activities related to potential program expansion, and administrative staffing support.

[9] DHW is defined as water used, in any type of building, for domestic purposes, principally drinking, food preparation, sanitation and personal hygiene (but not including space heating, space cooling, or swimming pool heating).

[10] Examples of eligible DHW end uses in include: apartment buildings with central DHW systems, convalescent homes, hotels and motels, military bachelor quarters, school dormitories with central DHW systems and prisons. Examples of eligible commercial end uses include: commercial laundries, laundromats, restaurants, food processors, agricultural processes and car washes.

Table 7: CSI-Thermal Expenditures by PA

Natural Gas and Electric/Propane CSI-Thermal Program Expenditure Data January 1, 2010 to December 31, 2013					
Expenditure Type	**CCSE**	**SCE**	**PGE**	**SCG**	**Total**
Administration	$1,412,920	$715,421	$3,166,894	$2,147,143	**$7,442,378**
Market Facilitation	$1,093,404	$745,366	$5,091,279	$4,602,367*	**$11,532,416**
Measurement & Evaluation	$9,281	$0	$4,310	$0	**$13,591**
Incentives Paid	$3,408,437	$57,033	$8,078,624**	$5,283,068	**$16,827,162**
Total	**$5,924,042**	**$1,517,820**	**$16,341,107**	**$12,032,578**	**$35,815,547**

* This amount also includes total Statewide M&O expenses including allocations to be reimbursed by other Program Administrators.

**Incentive total is lower than Q3 due to over-estimated incentive accruals.

Table 8: CSI-Thermal Expenditures by PA (Natural Gas)

Natural Gas October 1 – December 31, 2013				
Expenditure Type	**CCSE**	**PG&E**	**SCG**	**Total**
Administration	$52,763	$166,692	$228,763	**$448,218**
Market Facilitation	$239,383	$507,398	$46,839*	**$793,620**
Measurement & Evaluation	$792	$1,734	$0	**$2,526**
Incentives Paid	$228,462	($351,819)**	$1,296,699	**$1,173,342**
Total	**$521,400**	**$324,005**	**$1,572,301**	**$2,417,706**

* This amount also includes total Statewide M&O expenses including allocations to be reimbursed by other Program Administrators.

**Incentive total is lower than Q3 due to over-estimated incentive accruals

Table 9: CSI-Thermal Expenditures by PA (Electric/Propane)

Electric/Propane October 1 – December 31, 2013				
Expenditure Type	**CCSE**	**PG&E**	**SCE**	**Total**
Administration	$15,134	($19,029)*	$46,762	**$42,867**
Market Facilitation	$60,816	$137,381	$141,562	**$339,759**
Measurement & Evaluation	$158	$33	$0	**$191**
Incentives Paid	$10,245	$0	$2,954	**$13,199**
Total	**$86,353**	**$118,385**	**$191,278**	**$396,016**

*Incorrectly charged costs were reapplied from Q3 to Q4 Program.

4. Program Progress

The PAs spent much of Q4 2013 addressing future expansion of the CSI-Thermal Program to incorporate solar pool heating systems. On September 30, 2013, SCG, on behalf of the PAs, filed proposed modifications for the implementation of the solar pool heating component of the CSI-Thermal. Since the solar pool heating program is applicable to natural gas customers of SCG, PG&E and SDG&E, SCE did not participate in filing the advice letter with the other PAs.

The CSI-Thermal Program began accepting applications for single-family systems and multi-family/commercial systems on May 1, 2010 and October 8, 2010, respectively. Applications for propane-displacing SWH systems were available on February 7, 2012, while the low-income program began on March 29, 2012. In addition, the CPUC approved an increase in the single-family residential and the commercial and multi-family incentive levels effective July 4, 2012. Tables 10, 12, 14, 16 and 18 present the quantities of applications received by each PA in Q4 2013, as well as the corresponding incentives and energy savings for those applications. Tables 11, 13, 15, 17, 19 & 20 show the average costs of systems for completed projects by PA and customer class since program inception.

Table 10: Summary Data: CSI-Thermal Single-Family Applications by Status (Natural Gas)

	CCSE	PG&E	SCG	Total
	Q4	Q4	Q4	
APPLICATIONS RECEIVED				
Application (Number)	4	13	64	**81**
Incentives ($)	$8,085	$29,877	$105,825	**$143,787**
Capacity (First Year Expected Energy Displaced in therms)	460	1815	6,147	**8422**

Table 11: Average Cost per Single-Family Project (Natural Gas)

	CCSE	PG&E	SCG	Overall Average
Average Project Cost per Single-Family Project ($)*	$7,441	$12,283	$9,297	**$9,674**
Average Project Cost per Unit of First Year Energy Displaced ($/therm)*	$67.32	$88.83	$88.77	**$81.64**

*Since program inception

Table 12: Summary Data: CSI-Thermal Single-Family Applications by Status (Electric/Propane)

	CCSE	PG&E*	SCE	Total
	Q4	Q4	Q4	
APPLICATIONS RECEIVED				
Applications (Number)	8	0	0	**8**
Incentives ($)	$10,245	N/A**	N/A	**$10,245**
Capacity (First Year Expected Energy Displaced in kWh)	19,445	0	0	**19,445**

Legend: Applications Received = All applications that moved to "Application Review" status during the reporting period

* The budget is currently exhausted for single-family residential electric systems in the PG&E territory. Single-family electric or propane-displacing applications submitted in this territory will be placed on a waitlist.

**All applications are in Waitlist status

Table 13: Average Cost per Single-Family Project (Electric/Propane)

	CCSE	PG&E	SCE	Overall Average
Average Project Cost per Single-Family Project ($)*	$7,374	$8,213	$7,756	**$7,781**
Average Project Cost per Unit of First Year Energy Displaced ($/kWh)*	$2.66	$2.95	$2.37	**$2.66**

*Since program inception

Table 14: Summary Data: Multi-family/Commercial (Natural Gas)

	CCSE	PG&E	SCG	Total
	Q4	Q4	Q4	
APPLICATIONS RECEIVED				
Application (Number)	10	3	11	**24**
Incentives ($)	$253,505	$79,252	$587,716	**$920,473**
Capacity (First Year Expected Energy Displaced in therms)	17,447	5,634	40,479	**63,560**
UNDER REVIEW Incentive Claims				
Application (Number)	1	7	6	**14**
Incentives ($)	$21,548	$161,501	$215,726	**$398,775**
Capacity (First Year Expected Energy Displaced in therms)	1,483	14,546	14,920	**30,949**

Applications Received = All applications that moved to "RR Application Review" status during the reporting period
Under Review Incentive Claims = All applications that moved to "ICF Application Review" status during the reporting period

Table 15: Average Cost per Multi-family/Commercial Project (Natural Gas)

	CCSE	PG&E	SCG	Total
Average Project Cost per Multi-family/commercial Project ($)*	$155,836	$84,004	$57,234	**$99,025**
Average Project Cost per Unit of First Year Energy Displaced ($/therm)*	$42.20	$44.89	$37.73	**$41.61**

*Average Project Cost per Multi-family/commercial Project for all completed projects since program inception

Table 16: Summary Data: Multi-family/Commercial (Electric/Propane)

	CCSE	PG&E	SCE	Total
	Q4	Q4	Q4	
APPLICATIONS RECEIVED				
Application (Number)	0	0	0	0
Incentives ($)	N/A	N/A	N/A	N/A
Capacity (First Year Expected Energy Displaced in kWh)	N/A	N/A	N/A	N/A
UNDER REVIEW Incentive Claims				
Application (Number)	0	0	0	0
Incentives ($)	N/A	N/A	N/A	N/A
Capacity (First Year Expected Energy Displaced in kWh)	N/A	N/A	N/A	N/A

Applications Received = All applications that moved to "RR Application Review" status during the reporting period
Under Review Incentive Claims = All applications that moved to "ICF Application Review" status during the reporting period

Table 17: Average Cost per Multi-family/Commercial Project (Electric/Propane)

	CCSE	PG&E	SCE	Total
Average Project Cost per Multi-family/commercial Project ($)*	$58,850	$15,065	$7,630	**$27,182**
Average Project Cost per Unit of First Year Energy Displaced ($/kWh)*	$3.05	$1.44	$4.32	**$2.94**

*Average Project Cost per Multi-family/commercial Project for all completed projects since program inception

Table 18: Summary Data: Multi-family Low-income (Natural Gas)

	CCSE	PG&E	SCG	Total
	Q4	Q4	Q4	
APPLICATIONS RECEIVED				
Application (Number)	3	13	7	**23**
Incentives ($)	$28,402	$488,476	$176,493	**$693,371**
Capacity (First Year Expected Energy Displaced in therms)	1477	25,755	9,215	**36,447**
UNDER REVIEW Incentive Claims				
Application (Number)	7	3	9	**19**
Incentives ($)	$416,966	$77,059	$710,076	**$1,204,101**
Capacity (First Year Expected Energy Displaced in therms)	22,249	15,115	37,202	**74,556**

Applications Received = All applications that moved to "RR Application Review" status during the reporting period
Under Review Incentive Claims = All applications that moved to "ICF Application Review" status during the reporting period

Table 19: Average Cost per Multi-family Low-income (Natural Gas)

	CCSE	PG&E	SCG	Total
Average Project Cost per Multi-family/commercial Project ($)*	$73,908	$83,084	$73,540	**$76,844**
Average Project Cost per Unit of First Year Energy Displaced ($/therm)*	$54.49	$49.04	$54.13	**$52.55**

*Average Project Cost per Multi-family/commercial Project for all completed projects since program inception

4.1 Turnaround Times

The PAs strive to process reservation requests and incentive claim requests within 30 days or less for both single-family residential and multi-family/commercial applications to ensure that projects move forward as quickly as possible. Tables 20 through 22 reflect the reporting period from October 1 through December 31, 2013.

Table 20 shows the most recent application processing timeframes (between the "Reservation Application Review" and "Reservation Application Approved" stages) for 2- or 3-step multi-family/commercial project applications. This metric represents the amount of time it took to reserve incentives for a multi-family/commercial project.

Table 21 shows the time from Application Review to Incentive Approval for 1-step – Single-Family Residential project applications. The time measured in the processing time tables includes both PA application processing time and the time taken by the host customer to respond to requests for more information or application corrections.

Table 22 shows the Time from Application to Incentive Approval for 2- and 3-step- multi-family/commercial project applications.

Applications that require the PAs to take more than 60 days to approve typically have outstanding issues that require resolution or input from the Applicant and/or customer. Issues encountered from these applications include, but are not limited to:

- Incorrect project site addresses;
- Missing signatures;
- Missing or incomplete documentation; and
- Slow customer/Applicant responsiveness.

Table 20: Multi-family/Commercial Application Processing Times by Program Administrator between "Reservation Application Review" and "Reservation Application Approved" Stages

Program Administrator	30 Days or Less	60 Days or Less	Greater than 60 Days	Total
	Q4	Q4	Q4	
Multi-family-Commercial				
CCSE	81.82%	100.00%	0.00%	11
PG&E	84.62%	100.00%	0.00%	13
SCE	0.00%	0.00%	0.00%	0
SCG	52.38%	100.00%	0.00%	21

Table 21: Processing Time from Application Review to Incentive Approval (1- Step – Single-Family Residential)

Program Administrator	30 Days or Less	60 Days or Less	Greater than 60 Days	Total
	Q4	Q4	Q4	
No Inspection: Percentage of applications without inspection with processing time between Incentive: Application Review and Incentive: Approved as described.				
CCSE	28.57%*	28.57%*	71.43%*	7
PG&E	100.00%	100.00%	0.00%	10
SCE	100.00%	100.00%	0.00%	1
SCG	93.85%	98.46%	1.54%	65
Inspection: Percentage of applications with inspection with processing time between Incentive: Application Review and Incentive: Approved as described.				
CCSE	0.00%	100.00%	0.00%	2
PG&E	0.00%	100.00%	0.00%	1
SCE	0.00%	100.00%	0.00%	1
SCG	0.00%	0.00%	100.00%	2
Percentage of applications with processing time between Incentive: Application Review and Incentive: Paid as described.				
CCSE	22.22%*	22.22%*	77.78%*	9
PG&E	75.00%	75.00%	25.00%	12
SCE	50.00%	100.00%	0.00%	2
SCG	79.45%	94.52%	5.48%	73

*Due to single-family electric-/propane-displacing applications being put on a waitlist while there were no incentive funds available in CCSE territory.

Table 22: Processing Time from Application Review to Incentive Approval (2-and 3-Step - Commercial or Multi-Family Residential)

Program Administrator	30 Days or Less	60 Days or Less	Greater than 60 Days	Total
No Inspection: Percentage of applications without inspection with processing time between Incentive: Application Review and Incentive: Approved as described.				
CCSE	100.00%	100.00%	0.00%	2
PG&E	100.00%	100.00%	0.00%	11
SCE	N/A	N/A	N/A	0
SCG	80.00%	100.00%	0.00%	15
Inspection: Percentage of applications with inspection with processing time between Incentive: Application Review and Incentive: Approved as described.				
CCSE	0.00%	100.00%	0.00%	1
PG&E	25.00%	100.00%	0.00%	4
SCE	N/A	N/A	N/A	0
SCG	33.33%	100.00%	0.00%	6
Percentage of applications with processing time between Incentive: Application Review and Incentive: Paid as described.				
CCSE	60.00%	80.00%	20.00%	5
PG&E	68.75%	87.50%	12.50%	16
SCE	N/A	N/A	N/A	0
SCG	15.38%	51.28%	48.72%	39

5. Market Facilitation

5.1 Completion of Statewide Continuation Plan

The execution of the Statewide Continuation plan ended on December 31, 2013. The continuation plan focused on extending the program's online presence to further increase awareness and drive more traffic to the WaterHeatedByTheSun.com (WHBTS.com) landing page. Funds within the plan were re-allocated to support the optimization and redesign of the landing page in order to provide a better user experience.

5.2 Statewide Market Facilitation Plan for 2014

In August 2013, the PAs jointly reconfirmed their intent to continue building on the success of the program, engaging Phelps Total Market (PTM) to prepare and develop a Statewide Market Facilitation Program for 2014 to be filed as a common statewide component in each of the PAs 2014 Local Market Facilitation Plans. The campaign objective is to continue to increase awareness of the program by providing continuity to the existing program based on the campaign's achievements.

The 2014 Statewide Market Facilitation Plan was submitted to the CPUC for approval on October 1, 2013 and was approved on November 12, 2013. The PAs are currently in the strategic planning phase with PTM to develop an implementation strategy. The 2014 statewide marketing communications strategy is scheduled to go "live" in Q2 2014.

5.3 Other Activities

The M&O representatives provided an update during the CSI Public Forum on December 18, 2013, as well as provided marketing updates to Energy Division staff via conference calls on regular basis during Q4 2013.

5.4 Mandatory CSI-Thermal Workshops

Contractors and self-installers are required to attend a designated, no-cost CSI-Thermal Program training workshop. The PAs conduct training courses in their respective service territories. The workshops are publicized on each PA's website as well as the GoSolarCalifornia website[11]. As part of the statewide effort, the PAs coordinated this activity and developed a one-day Contractor and Self-installer curriculum for the training workshop.

The CSI-Thermal Program training workshop is intended to familiarize Applicants (contractors and self-installers) with program rules and requirements. The workshop provides an overview of the CSI-Thermal Program Handbook, application process, program requirements, technical requirements, and additional related resources. Upon completion of this mandatory CSI-Thermal Program training workshop and meeting other requirements, Applicants receive a unique alphanumeric key that allows them to register on the web-based, online statewide application database and be eligible to apply for CSI-Thermal Program incentives in any PA territory.

Table 23 shows the number of workshops held in each service territory during Q4 2013 and the number of attendees. As of December 31, 2013, there are 480 licensed eligible solar contractors statewide.

[11] http://gosolarcalifornia.org/.

Table 23: Mandatory CSI-Thermal Workshops Held by Program Administrator

	Q4 2013	
PA	Number of Workshops	Number of Attendees
CCSE	1	8
PG&E	1	20
SCE[12]	2	29
SCG[14]	1	35
Total	5	92

5.5 PA-Specific Marketing Efforts

5.5.1 Southern California Gas Company

In an effort to increase adoption of SWH systems and increase the number of trained installers, SCG continued its collaboration with SCE and Alternative Energy Systems Consulting (AESC) to provide mandatory contractor and self-installer training courses. To ensure overlapping SCG and SCE service territories were covered by both utilities, training courses alternated every other month between SCE and SCG training facilities. SCG's course was offered at its Energy Resource Center in Downey, California. SCG hosted one workshop with 35 attendees during Q4 2013.

Trade Shows and Events

The CSI-Thermal Program had a presence at the following shows and events during Q4 2013 at which SCG participated as an Exhibitor. At each venue, the statewide brochures as well as promotional items were distributed.

10/03/13	West Coast Expo	Los Angeles
10/05-10/13/13	US Dept. of Energy Solar Decathlon & XPO	Irvine
10/19/13	Taste of Soul	Los Angeles
10/19-10/20/13	LA Green Festival	Los Angeles
10/25/13	Chino Valley Chamber of Commerce Business EXPO	Chino Hills

[12] Contractors and self-installers can attend classes offered by either SCE or SCG. SCE and SCG alternate locations each month to cover overlapping service territories.

11/05 – 11/06/13	International Energy Agency Conference	San Diego
11/07/13	Small Business Expo	Los Angeles
11/13/13	Institute of Heating & Cooling Industries Trade Show	Pasadena
11/14/13	K-12 Schools Prop.39 Symposium	Brea

Informational Workshop Event & External Communications

One informational workshop event was held during Q4 2013:

- US Dept. of Energy Solar Decathlon and XPO
    - Irvine, California, Sunday, 10/06/13
    - Held at The Great Park during the Innovation Symposium

The following paid media was deployed in support of the Irvine workshop:

- Digital
    - Digital banners (300x250, 300x600 & 160x600 executions)
    - Digital properties included, but were not limited to: 360media.com, latimes.com, ocregister.com and ocbj.com (OC Business Journal).
    - Social Media: Facebook & Twitter

- Email
    - Email newsletter sent to customers within geographic reach of event

- Print Ads
    - Los Angeles Times, Special "Solar Energy" Section Advertorial Article - 9/25/13
    - Los Angeles Times - 9/23-10/05/13
    - Orange County Register - 9/23-10/05/13
    - Glendale News Press - 9/23-10/05/13
    - Orange County Business Journal - 9/23-10/05/13

- Radio
    - Solar Radio Tags
    - Station: NPR & KKJZ
    - Flight Dates: 9/23 – 10/06/13

- Brand Ambassadors/"Street Team" Deployment

- Brand ambassadors visited various hot spots to spread the Go Solar message. Some of these locations included the following, but were not limited to: Redondo Beach, Manhattan Beach, Orange County, and various surrounding shopping centers.
- At these locations, brand ambassadors engaged qualified homeowners in conversations about the program and promoted the SCG Solar Booth & Informational Workshop at the Solar Decathlon & XPO.

- Solar Information Booth
  - An SCG-branded booth was present and staffed with knowledgeable personnel throughout the event. Printed materials, branded giveaways and a mock-up display of a SWH system were available to visitors.
  - Brand ambassadors moved throughout the event to promote the informational booth and also worked alongside SCG at the booth.

Advance registrations were requested and attendees were able to sign-up via e-mail at socalgas.com/solar.

Local Market Facilitation Plan

During Q4 2013, SCG worked with Phelps Total Market (PTM) to begin the planning for implementation of the 2014 Local Market Facilitation plan, which was submitted to the CPUC for approval by the October 1, 2013 deadline and approved on November 12, 2013. A Single-Family Low-Income Addendum was approved on October 31, 2013. The 2014 Local Communication Strategy is scheduled to go "live" in early in Q2 2014.

Solar Microsite

SCG is working with PTM to develop a local solar microsite, which will be the online destination for customers to engage with SCG through 2014 marketing efforts. The microsite will feature informational videos, rebate information, the program's key content and link back to socalgas.com/solar. The microsite is slated to launch mid-March 2014.

CSD Effort – Low-Income Segment

SCG is working with Community Services and Development (CSD) on developing 2014 communication tactics to reach the low-income segment. The program incentive will be a no-cost Solar Water Heating system for income-eligible customers who have participated in the Energy Savings Assistance program. SCG will leverage the efforts that were initiated in 2013 through direct mail marketing.

5.5.2 California Center for Sustainable Energy

Training and Education

CCSE conducted the following SWH workshops in Q4 2013. A brief description of each workshop follows.

Solar Water Heating Basics for Homeowners	10/17/13
Skip's Tips	10/22/13
Solar Water Heating Basics for Homeowners	11/12/13
How to Become an Eligible Contractor in the CSI-Thermal Program	11/13/13
Skip's Tips	12/03/13
Solar Water Heating Basics for Homeowners	12/05/13

Solar Water Heating Basics for Homeowners

For residents seeking to learn more about the advantages and potential benefits of SWH technology.

How to become an Eligible Contractor in the CSI-Thermal Program

Attendance at this contractor and self-installer workshop is a prerequisite for becoming an eligible contractor under the CSI-Thermal Program.

Skip's Tips

Led by CCSE's solar water heating technical expert, Skip Fralick, this workshop covers advanced solar thermal topics and was reintroduced in September after a two-month hiatus. The format of this workshop has been updated to include a spotlight on a different commercial segment each month such as car washes and industrial laundries.

Workshop Promotion and Follow-up

CCSE relied on the targeting capabilities and cost-effectiveness of digital direct mail communications to promote workshops and disseminate important news items. By sending customized e-mail reminders and follow-ups to workshop registrants and attendees, CCSE has been able to entice more people to register for SWH workshops and is also improving the conversion rate between those who register for workshops and actual attendees.

Paid & Earned Media

CCSE launched an array of paid and media marketing tactics during Q4 2013 to bolster awareness of SWH in the San Diego region and encourage homeowners to register for workshops.

- **Radio**
  - Total Traffic and Weather Network (TTW) (10/21 – 12/16/13)
    - TTW provided access to a network of 10 San Diego county radio stations
      - 10- and 15-second radio sponsorship copy
      - 174 sponsorships over 6-week campaign
      - 29 sponsorships weekly
      - The campaign reached 31% of radio listeners between the ages of 35 and 64 in San Diego (a reach of 379,160 unique listeners, or 720,100 total radio impressions)

- KPBS (10/21 – 11/03/13)
  - 15-second radio sponsorships
  - 21 total spots aired between 10/21 – 10/27/13
  - 45 total spots aired between 10/28 – 11/03/13.

- **Digital**
  - KPBS.org (11/05 – 11/13/13)
    - 250 x 300 digital banner execution
    - Drove 206 unique visits to CCSE's SWH workshop registration page
- **Outdoor**
  - "Rotation Blitz" with CBS Outdoor (10/21/13 – 1/12/14)
    - Transit shelters (30), posters (18) and billboards (3) in select communities
    - Locations shifted over the course of campaign
    - "Soak up the sun and savings" messaging directed viewers to waterheatedbythesun.com
- **Print Ads**
  - Carlsbad Business Journal (11/13)
    - Contributed an ad and article to November's "Green Business" issue
  - Apartment Owners Association (AOA) Magazine (12/13)
  - San Diego County Apartment Association (SDCAA) "Rental Owner" magazine (12/13)
  - Western Car Wash Association – Express Newsletter (9/13 – 10/13)
    - CCSE's Skip Fralick contributed an article in the "Express Newsletter" about the benefits of SWH within the car wash industry.

Events & Outreach

During Q4 2013, CCSE participated in the following events to help raise awareness of SWH and available CSI-Thermal rebates:

- 2013 Western Car Wash Association Show (10/29 – 10/30/13)
  - Procured booth space and provided access to SWH materials as well as on-site experts who could answer questions and discuss the value proposition of SWH with conference attendees.
  - Developed "Example Solar Thermal Savings Estimate" poster to enhance the targeting of booth property.
    - This poster was also printed and made available as a handout for attendees.
- San Diego Brewer's Guild Festival (11/02 – 11/03/13)
  - Sponsored the Guild Festival in partnership with the Self-Generation Incentive Program. CCSE's booth provided access to SWH materials as well as on-site experts to discuss the potential benefits of SWH within the brewing industry.

- Apartment Owners Association (AOA)
    - Sponsored "Tax Strategies" workshop (12/12/13)

Other Marketing Activities

In addition to the paid media tactics above, CCSE also leveraged the following in-house communication platforms during Q4 2013 to help promote SWH and available workshops.

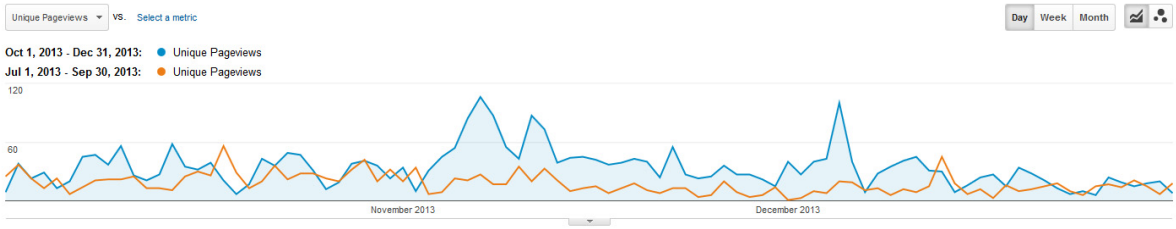
- *Roundup Newsletter*: CCSE publishes a bi-weekly e-mail calendar called the Roundup that features all CCSE workshops offered in the community. This newsletter grew to nearly 15,000 subscribers during Q4 2013 and continues to be an effective medium for promoting CSI-Thermal workshops.
- *Go Solar, California! Newsletter*: CCSE leads the production of the Go Solar, California Newsletter and oversees its bi-monthly distribution to approximately 10,500 subscribers. Two articles pertaining to the CSI-Thermal Program were published during Q4 2013 and are briefly summarized below.
    - CSI-Thermal Adds Pool Heating (September – October Newsletter): This article communicated the recent CPUC approval of additional rebates for solar pool heating systems at commercial and government facilities, schools, multifamily housing and locations operated by nonprofit organizations.
    - Rebates Back for San Diego Residents (November – December Newsletter): This article addressed the Commission's granting in part of CCSE's Petition to Modify and the resulting opening of residential rebates for the general market PV program, which, due to the shared budget, also opened incentives to customers who install electric- or propane-displacing SWH systems.
- *CCSE's online calendar*: Features all of CCSE's events and workshops and is one of the most active pages on CCSE's website.
- *Facebook, Twitter and LinkedIn*: CCSE has an active presence on Facebook, Twitter and LinkedIn. These social media channels connect CCSE to a green-minded audience and provide a fruitful platform for engaging with the community as well as sharing program updates, promoting workshops and further spreading awareness of SWH.

Web Development

CCSE's website devotes several pages to CSI-Thermal Program-specific information at www.energycenter.org/swh. This landing page is updated frequently to ensure the CSI-Thermal Program pages remain an engaging, accurate and up-to-date resource for local homeowners and businesses who want to learn more about SWH and available rebates.

- Website traffic and engagement grew dramatically in Q4 2013.

- CSI-Thermal residential landing page views increased by 132.77% between Q3 and Q4 2013.
- CSI-Thermal commercial landing page views increased by 110.5% between Q3 and Q4 2013.



5.5.3 Pacific Gas and Electric Company

Tradeshows and Events

In Q4 of 2013, PG&E participated in the following tradeshows and events:

10/02/13 – Western Dairymen Association Meeting, Tulare, CA. PG&E presented to the Western Dairymen about the variety of distributed generation programs offered. Brian Bishop presented on solar thermal applications in the dairy sector.

10/05/13 – Western States Designs event, Hayward, CA. This event focused on the benefits provided by solar thermal in the laundry sector. In attendance were contractors, manufacturers and laundromat owners / operators to whom PG&E provided information on the benefits of solar thermal.

10/22-10/24/13 – Attendance at Solar Power International (SPI), Chicago. This is the largest solar conference in the world and events focus on the solar thermal industry including the annual Solar Heating and Cooling Alliance meeting.

12/17/13 – Participation in the Schools Energy Coalition's (SEC) Webinar. PG&E was guest of SEC, presenting a slide deck on solar thermal basics and providing solar thermal information to educators and schools in PG&E territory. Educators are considering solar thermal in their Prop 39 energy plans.

12/18/13 – Hosted the Statewide CSI Thermal Program Forum for Statewide PAs, Marketing, CPUC, contractors, industry, etc. This Webinar focuses on the history of the CSI-Thermal Program, recent program updates, and in this case provided new information about the developing Solar Pool heating program.

CSI-Thermal Workshops

As a core part of PG&E's ongoing efforts, PG&E continues to offer monthly CSI-Thermal Program Workshops for contractors and self-installers throughout the service territory. The workshops are vital in conveying program requirements and ultimately help ensure contractors are better prepared to submit CSI-Thermal Program paperwork. All qualifying technologies are covered, as well as some that do not receive incentives, and contractors are instructed on how to use the CSI-Thermal database to submit project paperwork and check status. This workshop is required for anyone looking to become an eligible installer within the CSI-Thermal Program. While PG&E normally offers one Contractor's Workshop every month or every other month, PG&E offered only one Workshop in Q4 2013 due to the scheduling constraints of the holiday season. The workshop was fairly well attended.

CSI-Thermal workshops offered in Q4, 2013:

Date	Location
November 18, 2013	Pacific Energy Center

Solar Water Heating Education

PG&E continues to offer customer education and outreach courses online and in-person at our local training centers. Informational and introductory courses provide details on SWH technology, as well as rebate and market information to individuals looking to get into the business or looking to have a system installed on their property. Many of the classes are offered on Saturdays and via the web to ensure optimal access and that attendees do not have to take time off from their jobs to attend.

PG&E has generally conducted three different SWH courses to cover the basics on the program for residential and multi-family/commercial interest:

- **Solar Water Heating Basics:** This course provides an overview of SWH technologies to individuals looking to gain high level information.
- **Solar Water Heating Systems for Homeowners**: This basic class provides an overview of the design, specification, and installation aspects of SWH systems for residential applications.
- **Solar Water Heating** - **Advanced Commercial Systems:** This advanced class focuses on key aspects of large-scale SWH systems for commercial applications.

There are a significant number of contractors who are focusing on the low-income residential market throughout the state. This is an underserved market that PG&E, the other utilities, and the

California State Dept. of Community Services and Development (CSD) are paying extra attention to going forward. In Q2 2013, the utilities started this project with CSD, and in Q3 PGE compiled lists of qualifying low income homeowners and sent out thousands of letters to residents in Q4 2013 about solar thermal and the offer of a free solar thermal residential system. PG&E is proud to have installed the first residential low-income solar thermal project in the state (PGE-002451), with another at Application Review stage (PGE-002655) as of this writing.

The other solar thermal and energy efficiency-related classes PG&E offers include a variety of topics with beginning and advanced students in attendance. The 5-day Workshop was taught in Q2 2013 by CleantechEdu, and the curriculum was especially well-received by the participants who were invigorated by the course. They were able to physically work with solar thermal equipment, outside, hands-on wgucg added a great dimension to their learning. PG&E is considering offering this class again in Q1 or Q2 of 2014 after it evaluates the benefit of this class or the potential benefits of similar hands-on classes. More classes and workshops are scheduled for Q1 and Q2 2014, including two Agriculture Workshops.

CSD Partnership

In Q4 2013, PG&E continued to support a partnership with the California Department of Community Services and Development (CSD) to drive solar water heating adoption among low-income customers through a pilot to install 1,000 SWH systems in qualified households. PG&E continued outreach on behalf of this pilot through Direct Mail to support enrollment in the CSI Thermal Program. The letter informed low-income customers of their eligibility to participate and encouraged them to call CSD to be connected with a contractor. PG&E also filed a supplemental Advice Letter (AL) in Q4 2013 to indicate how PG&E will support low-income outreach in 2014.

Digital

PG&E ran several digital ads through October 2013:

- Yahoo – Ads (Size 300x250 and 728x90)
  Geo Targeting: Sonoma County-Northern and Southern
  Interest/ Behavior: Appliances, Issues and Causes/Energy, Weather
- PD.COM, Yahoo ROS, Yahoo, Sonoma County (Size 300x250)
- Sonoma Press Democrat.com (Size 728x90)
  Sliding Billboard

Solar Website

PG&E launched a completely redesigned solar experience on pge.com for business and residential customers. The newly constructed webpages were designed using extensive customer insights to produce a site that is a useful, vital resource for customers interested in solar thermal and other renewable energy.

5.5.4 Southern California Edison Company

SCE continues its efforts to increase adoption of SWH systems and the number of trained installers by offering the monthly CSI-Thermal Program Contractor and Self-Installer Training.

Because SCE and SCG have overlapping service territories, the two utilities offer the monthly training at their respective energy centers on an alternating basis and cross-promote it on their respective websites as well as in the *Go Solar, California* newsletter. For this reporting period, SCE scheduled two CSI Thermal Contractor and Self-Installer Training classes at its Energy Education Center in Irwindale on October 16, 2013 and December 11, 2013. As part of our Community College grant, a class was held at Victor Valley College on October 23, 2013.

A brief description of SCE's other class/workshop offerings, which are promoted via direct mail, on SCE's Energy Center calendar and website, and on the Go Solar California Website, follows:

CSI Homeowner Solar Class (HSC) — These hour-long classes are non-technical, easy-to-understand, free sessions offered as Webinars to educate customers about the CSI and CSI-Thermal programs, available rebates and how to "go solar."

SCE held five HSC Webinars with a total of 133 attendees in Q4 2013.

Solar Connection Event — These 45-minute-long workshops are non-technical, easy-to-understand free sessions throughout SCE's service territory that educate customers about the CSI and CSI-Thermal programs, available rebates and how to "go solar," followed by an opportunity to meet with solar contractors to help determine a home's solar potential.

SCE held one Solar Connection Events in with 70 attendees in Q4 2013.

CSI Commercial Solar Workshop — These workshops are designed for SCE commercial, government and non-profit customers, and provide an overview of the CSI and CSI-Thermal programs. Attendees learn about the CSI and CSI-Thermal programs, eligibility requirements, the application and funds reservation process, rebates, and how solar can help customers lower operating costs and demonstrate their company's commitment to environmental stewardship.

During Q4 2013, SCE held one Commercial Solar Workshops at its Energy Education Center (EEC) in Irwindale (with a video conference to its EEC in Tulare), and began offering them at the ABC Green Home at The Great Park in Irvine. There were a total of 24 attendees.

Customer Outreach

SCE participates in conferences, tradeshows and community-based events as a means to further educate customers about the CSI-Thermal Program and provide continuing program exposure and increase customer awareness. In many cases, SCE leverages the M&O opportunities provided by

the CSI general market program to also promote the CSI Thermal Program. SCE distributed program fact sheets, bid comparison forms and other related information at the following events:

- Solar Decathlon, Irvine Great Park, 10/03 - 10/07/13 and 10/10 - 10/13/13
- Hispanic Heritage Celebration, SCE Energy Edu. Center, Irwindale, 10/09/13
- Solar Power International, Chicago, IL, 10/22/13
- Green California Schools Summit and Exhibition, Pasadena, 10/06 - 10/07/13

Local Market Facilitation Plan

SCE's local market facilitation efforts leveraged the statewide efforts and focused on potentially high-reward geographic and market segments in SCE's service territory, incorporating a variety of media while using pre-existing creative (with minor SCE-specific adjustments) to help limit unnecessary expenditures. During Q4 2013, local marketing efforts were put on hold and will resume in 2014.

SCE Website

SCE has a dedicated section of its SCE.com website to promoting the CSI-Thermal Program at www.sce.com/solarwaterheating.

The pages include detailed information about the program, recent changes to the program and upcoming Contractor and Self-Installer trainings offered by SCE and SCG.

The recent redesign of SCE.com resulted in separate channels for residential and commercial customers seeking information on the CSI-Thermal Program. With that change, SCE is working closely with SCG (as the lead PA for statewide marketing) to add "radio buttons" on WaterHeatedByTheSun.com for easier channel navigation to SCE.com and expects to have that completed in the very near future.

6. Conclusions

The CSI-Thermal Program continued to see increases in customer participation during Q4 2013, especially in the low-income multifamily and commercial segments. A substantial effort was made developing and incorporating the pool calculator model into the program database. Due to noticeable unglazed collector performance variations, which resulted in large incentive variations, the implementation of the solar pool heating program was delayed by 30 days, from December 14, 2013 to January 14, 2014. The solar pool heating incentives also have a potential to significantly increase participation in the CSI-Thermal Program.