California Solar Initiative Thermal Program

Quarterly Progress Report

(October 1 – December 31, 2012)

Published On:

February 15, 2013

Center for
Sustainable Energy
CALIFORNIA

Table of Contents

List of Tables

1. Executive Summary

1.1. Introduction

Southern California Edison Company (SCE), on behalf of the California Solar Initiative (CSI) Thermal (CSI-Thermal) Program Administrators (PAs)[1], submits this Fourth Quarter (Q4), 2012, 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, 2012. 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

On October 4, 2012, the new incentive rates took effect in the mainstream CSI-Thermal Program. Incentives for applications that had an initial review date of July 4, 2012, were adjusted to reflect the higher rates. In the case of single family residential applications, a supplemental payment was issued to the system owner for the incremental increase resulting from the new incentive rates.

The statewide marketing and outreach campaign continues to be successful, which is discussed in detail in Section 5 of this Report.

Additionally, the PAs continue to effectively manage the CSI-Thermal Program. Since program inception, more than 800 projects have been completed, accounting for over $9.6M in statewide incentive payments.[3]

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.[4] State law allows up to $100.8 million of CSI funds to be used for incentives

[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] As of December 31, 2012.

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

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 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),[5] 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,[6] 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 modifies 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 retroactive to projects that were in application review as of July 4, 2012.

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:

[5] Public Utilities Code § 2860-2867

[6] D.10-01-022

- 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.

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, 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 July 4, 2012

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
2	Single-Family	$13.11	$1,919
	Commercial/Multi-family	$9.88	$500,000
3	Single-Family	$7.69	$1,125
	Commercial/Multi-family	$6.55	$500,000
4	Single-Family	$3.23	$474
	Commercial/Multi-family	$3.13	$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 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[7] and for each customer class. Incentives are paid on a first come, first serve 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 maximum incentives for qualifying single-family low-income customers are 200% of the applicable CSI-Thermal SWH incentive level and incentives for qualifying SWH installations on multi-family housing are 150% of the applicable CSI-Thermal SWH incentive level. 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.

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

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 Handbook.[8] 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) OG-300 System Certification.[9]
- Solar collectors used in multi-family/commercial water heating must have SRCC OG-100 Collector Certification.
- 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.[10]
- For multi-family/commercial projects, SWH applications must directly consume the solar-heated potable water, as opposed to using the solar-heated water as a medium to carry heat for some other end-use. In multi-family/commercial applications, DHW and commercial end-uses are eligible for CSI-Thermal Program incentives.[11]

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

[9] 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.

[10] 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).

[11] 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.

- 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, go to the CSI-Thermal Handbook.

3. Program Expenditures

From program inception through December 31, 2012, CSI-Thermal Program expenditures totaled over $21 Million. 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 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.

Table 7: CSI-Thermal Expenditures by PA

Natural Gas and Electric/Propane CSI-Thermal Program Expenditure Data January 1, 2010 to December 31, 2012					
Expenditure Type	**CCSE**	**PG&E**	**SCE**	**SCG**	**Total**
Administration	$1,035,337	$2,493,717	$569,224	$1,464,935	**$5,563,213**
Market Facilitation	$539,158	$2,520,033	$481,625	$3,033,731[12]	**$6,574,547**
Measurement & Evaluation	$3,320	$2,543	$0	$0	**$5,863**
Incentives Paid	$1,973,794	$5,405,666	$32,065	$2,244,300	**$9,655,825**
Total	**$3,551,609**	**$10,421,959**	**$1,082,914**	**$6,742,966**	**$21,799,448**

[12] This amount also includes total Statewide Marketing and Outreach expenses including allocations to be reimbursed by other Program Administrators.

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

Natural Gas October 1 – December 31, 2012				
Expenditure Type	**CCSE**	**PG&E**	**SCG**	**Total**
Administration	$66,684	$118,212	$127,373	**$312,269**
Market Facilitation	$157,453	$281,684	$915,248[12]	**$1,354,385**
Measurement & Evaluation	$0	$0	$0	**$0**
Incentives Paid	$977,764	$929,023	$538,991	**$2,445,778**
Total	**$1,201,901**	**$1,328,919**	**$1,581,612**	**$4,112,432**

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

Electric/Propane October 1 – December 31, 2012				
Expenditure Type	**CCSE**	**PG&E**	**SCE**	**Total**
Administration	$16,879	$36,738	$54,620	**$108,237**
Market Facilitation	$40,734	$77,733	$363,440	**$481,907**
Measurement & Evaluation	$0	$0	$0	**$0**
Incentives Paid	$5,501	$34,150	$13,675	**$53,326**
Total	**$63,114**	**$148,621**	**$431,735**	**$643,470**

4. Program Progress

The PAs spent much of Q4 2012 modifying the CSI-Thermal Program Handbook and database to reflect the changes required by D.12.-08-008 to increase the incentives for the mainstream program. Additionally, the PAs devoted a significant amount of time working with their respective marketing leads to continue to publicize the program to various applicable customer sectors and business industries. The PAs also worked on refining the process and paperwork requirements for the recently launched low-income program for natural gas customers.

4.1 Applications Received, Installation Costs and Incentives Paid

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 2012, as well as the corresponding incentives and energy savings for those applications. Tables 11, 13, 15, 17 and 19 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)	3	9	10	**22**
Incentives ($)	$6,487	$21,550	$21,256	**$49,293**
Capacity (First Year Expected Energy Displaced in therms)	353	1,249	1,214	**2,816**

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

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

	CCSE	PG&E	SCG	Overall Average
Average Project Cost per Single-Family Project*	$7,527	$10,203	$8,455	**$8,728**
Average Project Cost per Unit of First Year Energy Displaced ($/therm)*	$67.00	$75.00	$72.63	**$71.54**

*Since program inception

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

	CCSE Q4	PG&E Q4	SCE Q4	Total
APPLICATIONS RECEIVED				
Applications (Number)	3	26	6	**35**
Incentives ($)	$4,524	$37,422	$10,324	**$52,270**
Capacity (First Year Expected Energy Displaced in kWh)	8,840	76,530	22,532	**107,902**

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

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

	CCSE	PG&E	SCE	Overall Average
Average Project Cost per Single-Family Project*	$7,729	$7,891	$7,815	**$7,812**
Average Project Cost per Unit of First Year Energy Displaced ($/kWh)*	$2.72	$2.86	$2.41	**$2.66**

*Since program inception

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

	CCSE Q4	PG&E Q4	SCG Q4	Total
APPLICATIONS RECEIVED				
Application (Number)	0	10	13	**23**
Incentives ($)	N/A	$358,030	$359,112	**$717,142**
Capacity (First Year Expected Energy Displaced in therms)	N/A	24,714	24,841	**49,555**
UNDER REVIEW Incentive Claims				
Application (Number)	6	6	8	**20**
Incentives ($)	$457,100	$334,335	$194,589	**$986,024**
Capacity (First Year Expected Energy Displaced in therms)	31,459	23,010	13,518	**67,987**

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 ($)*	$133,234	$71,256	$53,656	**$86,049**
Average Project Cost per Unit of First Year Energy Displaced ($/therm)*	$43.00	$45.26	$38.34	**$42.20**

*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)	N/A	N/A	N/A	N/A
Incentives ($)	N/A	N/A	N/A	N/A
Capacity (First Year Expected Energy Displaced in kWh)	N/A	N/A	N/A	N/A
UNDER REVIEW Incentive Claims				
Application (Number)	N/A	N/A	N/A	N/A
Incentives ($)	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

In Q4 2012, no multi-family/commercial electric-or propane-displacing applications were submitted.

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

	CCSE	PG&E	SCE	Total
Average Project Cost per Multi-family/commercial Project ($)*	N/A	$58,793	$7,630	**$33,212**
Average Project Cost per Unit of First Year Energy Displaced ($/kWh)*	N/A	$1.44	$4.32	**$2.88**

*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)	4	14	24	**42**
Incentives ($)	$82,247	$545,504	316,077	**$943,828**
Capacity (First Year Expected Energy Displaced in therms)	4,277	29,287	16,644	**50,208**
UNDER REVIEW Incentive Claims				
Application (Number)	12	16	14	**42**
Incentives ($)	$436,179	$426,498	$233,801	**$1,096,478**
Capacity (First Year Expected Energy Displaced in therms)	22,834	22,290	12,158	**57,282**

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 (Gas)

	CCSE	PG&E	SCG	Total
Average Project Cost per Multi-family/commercial Project ($)*	$91,569	$78,296	$83,317	**$84,394**
Average Project Cost per Unit of First Year Energy Displaced ($/therm)*	$71.00	$64.00	$48.18	**$61.06**

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

4.2 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 are moved forward as quickly as possible. Tables 20 through 22 reflect the reporting period from October 1 through December 31, 2012.

Table 20 shows the most recent application processing timeframes (between the "Reservation Application Review" and "Reservation Application Approved" stages) for 2- or 3-step 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 (1 Step – Single-Family Residential). The time being 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 (2- and 3-Step- Commercial or Multi-Family Residential).

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. Problems encountered from these applications include, but are not limited to:

- Incorrect project site addresses
- Missing signatures
- Missing or incomplete documentation
- 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	20.00%	100.00%	0.00%	5
PG&E	96.55%	100.00%	0.00%	29
SCE	N/A	N/A	N/A	0
SCG	95.56%	100.00%	0.00%	46

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	100.00%	100.00%	0.00%	3
PG&E	100.00%	100.00%	0.00%	21
SCE	100.00%	100.00%	0.00%	3
SCG	85.71%	100.00%	0.00%	7
Inspection: Percentage of applications with inspection with processing time between Incentive: Application Review and Incentive: Approved as described.				
CCSE	50.00%	50.00%	50.00%	2
PG&E	60.00%	80.00%	20.00%	10
SCE	100.00%	100.00%	0.00%	5
SCG	66.67%	100.00%	0.00%	3
Percentage of applications with processing time between Incentive: Application Review and Incentive: Paid as described.				
CCSE	71.43%	85.71%	14.29%	7
PG&E	80.65%	93.55%	6.45%	31
SCE	100.00%	100.00%	0.00%	8
SCG	80.00%	80.00%	20.00%	10

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%	10
PG&E	100.00%	100.00%	0.00%	19
SCE	N/A	N/A	N/A	0
SCG	100.00%	100.00%	0.00%	20
Inspection: Percentage of applications with inspection with processing time between Incentive: Application Review and Incentive: Approved as described.				
CCSE	85.71%	100.00%	0.00%	7
PG&E	33.33%	100.00%	0.00%	3
SCE	N/A	N/A	N/A	0
SCG	100.00%	100.00%	0.00%	2
Percentage of applications with processing time between Incentive: Application Review and Incentive: Paid as described.				
CCSE	78.95%	100.00%	0.00%	19
PG&E	83.33%	100.00%	0.00%	24
SCE	N/A	N/A	N/A	0
SCG	90.91%	95.45%	4.55%	22

5. Market Facilitation

During Q4 2012, the Marketing & Outreach (M&O) representatives of the four PAs worked to continue the elements of the statewide marketing campaign begun in Q2 and Q3 2012 and leverage them to enhance their local outreach efforts.

5.1 Ongoing Digital Elements of Statewide Marketing Campaign

The baseline of ongoing outreach materials in the digital domain that was established in Q2 and maintained in Q3 continued in Q4. These include an internet landing page [WaterHeatedbytheSun.com], the TV commercial optimized for web, two animated internet banner ads aimed at residential and commercial customers, and search engine marketing. The

landing page continued to serve as the statewide portal to the CSI-Thermal Program sections of the four PAs' websites and the resource to which the statewide materials directed people for more information. Contextual video targeting services were used to deliver the TV commercial as pre-roll video to individuals in the target audience in a contextually-relevant environment. Similarly, contextual display targeting services were utilized to display animated banner ads to individuals in the target audience in a contextually-relevant environment. The Business Targeting Network (BBN) was used to deliver the business-themed animated banner ad to targeted commercial sites. An optimization effort in Q4 to better define the targeted keywords in Google searches resulted in a significant increase in the number of referrals to the "WaterHeatedbytheSun.com" option to information seekers.

5.2 NPR Sponsorships

The CSI-Thermal Program-sponsored program segments on key NPR-affiliated radio stations across the state, which begun during Q3 to reach listeners in the target demo for the marketing campaign, and continued into the first two weeks of Q4. Sponsorship copy approved by Energy Division was delivered on-air as part of the program sponsorship announcements during the weeks of October 1 and October 8. Animated banner ads were displayed on the stations' websites during the term of the sponsorship. Radio stations included: KCRW-FM, Santa Monica; KPBS-FM, San Diego; KPCC-FM, Pasadena; and KQED-FM, San Francisco.

5.3 Trade Print Publications

The targeted industry trade print publications placement effort begun in Q3 moved into high gear in Q4. In particular, ads appeared in:

October

- "Restaurant Hospitality"
- "Wine Business Monthly"
- "Commercial Property Management"
- "Maintenance Solutions"
- "Apartment Management Magazine"
- "Lodging Hospitality" – Mid-October to mid-November issue
- "California Assisted Living Association" – Fall Issue – Quarterly
- "California School Business" – Fall Issue - Quarterly
- "California Plumbing Heating and Cooling Contractors' Connection" - Fall/Winter Issue

November

- "Food Management"
- "Restaurant Hospitality"
- "Wine Business Monthly"
- "Food Engineering"
- "Commercial Property Management"
- "Maintenance Solutions"

- "Apartment Management Magazine"
- "Lodging Hospitality" – Mid-November to mid-December Issue
- "Reeves Journal"

December

- "Food Management"
- "Commercial Property Management"
- "Building Operating Management"
- "Apartment Management Magazine"
- "Lodging Hospitality" – Mid-November to mid-December Issue

5.4 E-newsletters

During Q4, copy and layouts for the following targeted business publication E-newsletters were distributed, all of which were reviewed and approved by Energy Division:

- "Athletic Business"
  - October 1, 2012 and November 5, 2012
- "Building Operating Management"
  - October 17, 2012 and November 14, 2012

5.5 Rebate Increase Press Release

During Q4, a press release announcing the CPUC-increased rebate amounts was prepared, approved by Energy Division, and distributed statewide to appropriate media and trade publications via *BusinessWire* on December 4, 2012.

5.6 Other Activities

The California Solar Initiative – Thermal Program statewide marketing campaign was honored with an E Source Utility Ad Award at an awards luncheon on October 4, 2012, at the Westin Denver Downtown during the 25th Annual E Source Forum. The residential-themed radio ad "Polar Bear Club" won 2nd Place in the Best Radio Ad Category of the national competition. Representatives from the four Program Administrators were on hand to accept the award on behalf of their organizations.

During Q4, a narration track that was approved by Energy Division was added to the previously-produced SWH illustration animation and became available for the PAs to use on their websites and at live-site events.

The M&O representatives provided content about the statewide marketing campaign for presentation in the CSI Public Forum webinar held on December 11, 2012.

The M&O representatives provided marketing updates to Energy Division staff via conference calls on a regular, bi-weekly basis during the quarter.

5.7 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. 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 2012 and the number of attendees. As of January 30, 2013, there are 432 licensed eligible solar contractors statewide.

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

	Q4 2012	
PA	**Number of Workshops**	**Number of Attendees**
CCSE	3	54
PG&E	2	55
SCE[13]	2	19
SCG[14]	1	11
Total	**8**	**139**

[13] 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.

5.8 PA-Specific Marketing Efforts

In addition to statewide marketing activities, each PA completed territory-specific or local marketing to address the needs of their customer base.

5.8.1 California Center for Sustainable Energy

Training and Education

During Q4 2012, CCSE continued to educate the community about SWH and its benefits through targeted workshops for homeowners and industry professionals. The three classes offered during Q4 were among the highest attended workshops of the year.

A brief synopsis of each workshop follows:

Solar Water Heating Basics for Homeowners: For residents seeking to learn more about the advantages and economics of SWH technology.

- 2 workshops
- 37 attendees

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.

- 1 workshop
- 17 Attendees

Workshop Promotion and Follow up

CCSE promoted its ongoing workshop offerings for both homeowners and contractors through a number of online and in-person activities during Q4.

Direct Email:

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 attract more people to our workshops and improve the conversion rate of those who register to become attendees.

Online Promotion:

CCSE utilized a number of in-house resources to spread the word about CSI-Thermal workshops, including the *Weekly Roundup* calendar, *Energy Connection* newsletter, CSI's *Go Solar, California!* newsletter as well as CCSE's online calendar and social media channels (Facebook and Twitter).

A brief synopsis of each communication platform follows:

- *Weekly Roundup:* CCSE publishes a weekly e-mail calendar called the *Weekly Roundup* that features all CCSE workshops offered to the community. This newsletter had more than 10,800 subscribers as of December 2012 and continues to be an effective medium to advertise CSI-Thermal workshops.
- *Energy Connection:* During Q4, CCSE published two *Energy Connection* newsletters. This newsletter features stories on a number of energy related topics and is a valuable outlet to reach CCSE's 12,500+ contacts that have opted into this mailing. The CSI-Thermal Program contributed to both newsletters during Q4 with the following articles:
    - October issue - An article on increased incentives for SWH was the most highly clicked article in the issue.
    - December issue - An article promoting an upcoming SWH training with National Solar Trainers was framed within the broader context of a growing SWH industry. The article generated a great deal of interest from CCSE's readers and helped translate interest to actual registrations.
- *Go Solar, California!:* Distributed to approximately 10,500 subscribers per month. Due to funding concerns, only a November issue was published during Q4.
- 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 and Twitter*:* CCSE has an active presence on both Facebook and Twitter. 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.

Events and Outreach

SWH's most prominent outreach during Q4 was being part of CCSE's Residential Energy Roadshow – a mobile exhibit featuring SWH technology alongside other residential energy-saving technologies and measures. During the month of October, the Roadshow made over 11 stops at local community events, including farmers markets, YMCAs, recreation centers, community centers and libraries. CCSE's outreach team is knowledgeable about the CSI-Thermal Program and uses marketing collateral to help share the SWH message with the San Diego community at these local events.

With the holidays slowing down SWH events and outreach during Q4, CCSE used the time to put together a comprehensive outreach plan for 2013, which will allow the CSI-Thermal Program to

more directly engage the community. CCSE enters 2013 with plans to build a SWH-branded booth for use at various events in addition to building relationships with local organizations and associations like BOMA and the Carlsbad Chamber of Commerce in order to more actively engage the program's commercial audience.

Solar Water Heating Installation Training (2-day and 5-day Sessions)

CCSE has continued its partnership with National Solar Trainers to provide in-depth SWH training programs to fully prepare attendees to enter into this rapidly growing market. Although this training was not scheduled to take place until 2013, CCSE conducted the majority of the marketing efforts for these two trainings during Q4. CCSE sent direct e-mail blasts to our database of contacts who have attended previous SWH classes and trainings. CCSE also partnered with Energy Upgrade California to send targeted e-mail invites to their program's home performance contractors and energy raters in the San Diego region. The article in the December issue of *Energy Connection* newsletter, mentioned above, also generated quite a bit of interest in the training based on CCSE's web analytics and the number of registrations for the training.

Collateral

CCSE produced one new piece of collateral during Q4 entitled "Choosing the Right Solar Water Heating Contractor." This piece is a printable one-page document aimed at homeowners to assist them in the process of choosing a SWH contractor. It provides tips and best practices for selecting a contractor and includes a contractor proposal comparison form that allows interested homeowners to keep track of the proposals they receive when speaking with contractors. This piece is available online and for interested attendees at CCSE's Solar Water Heating for Homeowners workshops.

Interactive Outreach/ Web Development

CCSE's website devotes several pages to CSI-Thermal Program-specific information at www.energycenter.org/swh. This landing page provides access to CSI-Thermal Program information as well as general information about SWH technology, how to apply for an incentive, upcoming workshops, program documents, resources for installers, solar thermal vendors, webinars and latest news and legislation on SWH. This information is updated frequently to ensure it is accurate and up-to-date.

In addition to ongoing website maintenance, CCSE finished a comprehensive website overhaul of the CSI-Thermal Program pages during Q4. Among some of the new features and additions are:

- SWH Homeowner Toolkit: This online kit provides a comprehensive overview of SWH, the CSI-Thermal Program and how to choose a contractor. The kit delivers this information via three online pieces of collateral including the CSI-Thermal "Understanding Rebates" brochure, "Understanding Solar Water Heating for Single-family Homes" brochure and the "Choosing the Right Solar Water Heating Contractor" piece created during Q4.

- Take the Next Step: This newly created section of CCSE's CSI-Thermal website filters web visitors through to either a residential- or commercial-specific guide to learn how they can take the next step with SWH.
- Find a Contractor: This section provides tips and best practices for choosing a SWH contractor so that interested parties feel more comfortable and capable when searching for the right contractor.
- Contractors' Corner: This section of the CSI-Thermal website is devoted specifically to SWH contractors. It provides clear navigation for contractors to easily locate permitting resources, technical guides, tools and other helpful resources.

5.8.2 Pacific Gas and Electric Company

The fourth quarter of 2012 represented a dormant time for PG&E's local marketing and outreach efforts. It is not a seasonally active time period, and there is typically little consumer interest leading up to the holidays.

CSI-Thermal Workshop

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. This workshop is required for anyone looking to become an eligible installer within the CSI-Thermal Program.

Solar Water Heating Informational Courses

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 conducted four different SWH courses in Q4 2012:

- **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.
- **Inspecting Solar Water Heating Systems**: This advanced class details all of the issues pertaining to inspecting and permitting of SWH systems in all sectors, including commercial, industrial, small business, multifamily, and residential. This workshop is designed for building inspectors, plan checkers, solar installers, designers, engineers, and

architects who wish to stay current on the latest code compliance issues to help facilitate safe and long-lasting SWH systems.

- **Solar Water Heating** - **Advanced Commercial Systems:** This advanced class focuses on key aspects of large-scale SWH systems for commercial applications.

Local Media Outreach

Radio Spots

In addition to the statewide radio buys on various stations, PG&E also purchased additional media in the Sacramento area. In early October, the media buy at the statewide level was wrapped up in Sacramento with NPR radio posts.

Direct Outreach

Greenbuild 2012 Conference – San Francisco

Hosted in San Francisco November 14-16, 2012, Greenbuild is the world's largest conference and expo dedicated to green building. Thousands of building professionals from all over the world come together at Greenbuild for three days of educational sessions, renowned speakers, green building tours, seminars, and networking events.

PG&E's CSI-Thermal team collaborated with several energy management programs in funding the booth presence. We had SWH team members on hand to answer questions and promote the CSI-Thermal program and incentives.

Restaurant Energy Management Events

In Q4 2012, SWH was presented at two restaurant-specific luncheon meetings in Berkeley and Danville. Each event had over 30 restaurant operator/manager(s) in attendance:

- October 4, 2012 – Comal in Berkeley
- October 23, 2012 – Bridges in Danville

Hotel Energy Forum

On October 30, 2012 a Hotel Energy Forum, sponsored by the Hotel Council was held at the Intercontinental Hotel in San Francisco. SWH materials were provided to all attendants, and PG&E has requested a slot on the speaking agenda in 2013.

PG&E Posts (and Tiles) on Facebook Page

On the PG&E Facebook page in December, two messages specific to SWH were posted to keep the subject top of mind for engaged PG&E customers (those who "friended" the PG&E Facebook page).

In addition, SWH tile boxes (which click through to the SWH home page) were introduced just under the main PG&E visual.

Research

Background

Hiner & Partners, Inc. is a privately held, employee owned, full-service marketing diagnostics and strategies firm. Their mission is to offer clients a consultative approach to marketing and consumer behavior research.

Objectives

In November 2012, Hiner and Partners presented their mid-campaign research results to PG&E. Measurement included:

- General awareness of SWH and perceptions (and interest) in it
- Awareness of CSI-Thermal Program
- Evaluation of the longer term potential for future program participation (including barriers, motivations and incentives)
- Awareness and impact of program marketing tactics

Results Highlights

- 29% recalled at least one campaign element. Most said campaign elements were useful and half said they provided a better understanding of SWH and the CSI-Thermal Program. Very few said they motivated action.
- Boosted awareness of SWH to 74% (up from 70%), awareness of the STP to 31% (up from 24%), and increased favorability, consideration and drove some to seek more information.
- The campaign did NOT reduce barriers or increase contact with contractors.
- There was a perception for those who did reach out to contractors as a result of the campaign that SWH is too expensive to install.
- Households with 4+ people, incomes $100-$200K, and 35-54 years old continue to have higher likelihood ratings.

Moving Forward

- The campaign may increase focus on contacting a local contractor for more information, and the incentive amount(s).

5.8.3 Southern California Edison Company

Training and Education

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 held two classes at its Energy Education Center in Irwindale on October 17, 2012, and December 4, 2012.

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 throughout SCE's service territory that educate customers about the CSI and CSI-Thermal programs, available rebates and how to "go solar." SCE has also begun piloting the HSC as Webinars.

SCE held one HSC in Hesperia and five Webinars with a total of 85 attendees.

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 Event in Menifee with 61 attendees.

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 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.

SCE held three Commercial Solar Workshops in the last quarter at its Energy Education Center (EEC) in Irwindale with a video conference to its EEC in Tulare with 69 attendees.

Solar Water Heating Basics Workshop — As part of SCE's efforts to reach its all-electric customers, SCE developed and scheduled two pilot Solar Water Heating Basics Workshops in two of its top all-electric communities, Long Beach and Temecula. SCE sent out more than 13,000 invitations to all-electric customers in those communities, and arranged to have solar thermal contractors in attendance, much like SCE does with its Solar Connection Events. The Temecula class was held on October 22, 2012, with 14 attendees, and the Long Beach class had to be canceled due to lack of customer interest.

Bundled 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. Program fact sheets, bid comparison forms and other related information were distributed at the following events:

- SCE Hispanic Heritage Celebration, SCE EEC-Irwindale, October 5, 2012;
- Northrop Grumman Employee Brown Bag Lunch and Learn, Lancaster, October 9, 2012;
- Orange County Cities Energy Efficiency Best Practices, Huntington Beach, November 7, 2012;
- L.A. Green Festival, November 17-18, 2012;
- SCE HPMEU/MEU Employee Training/Briefing, Irwindale, December 20, 2012.

Local Market Facilitation Plan

Early in the third quarter, SCE met with Fraser Communications to discuss potential CSI-Thermal Program tactics for the balance of 2012 and beyond. Fraser has developed a 2013 local media plan. SCE has subsequently reviewed the plan, provided feedback and is awaiting further recommendations from Fraser.

As part of SCE's Green Partnership with the Southern California Golf Association (SCGA), the final element of that agreement was fulfilled with the publishing of a two-page ad spread in the November issue of FORE, SCGA's monthly magazine to its 160,000+ members.

In addition, SCE is making the revised CSI-Thermal brochures available to customers at its Energy Education Centers in Tulare and Irwindale, including the Foodservice Technology Center and Home of the Future in Irwindale.

SCE Website

SCE has dedicated a 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.

SCE.com is currently undergoing a complete redesign that will result in a more streamlined website, as well as separate channels for residential and commercial customers seeking information on the CSI-Thermal Program.

5.8.4 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 11 attendees during Q4.

Trade Shows and Events

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

- Southern California Energy Summit at the Palm Springs Convention Center on October 4-5, 2012
- Apartment Owners Association Million Dollar Trade Show and Landlording Conference at the Los Angeles Convention Center on October 17, 2012
- Taste of Soul Family Festival Los Angeles at Crenshaw Blvd. on October 20, 2012
- Korean, Vietnamese , Filipino-American, Garden Grove Chambers of Commerce Business Expo at the Garden Grove Community Center on November 7, 2012
- Opportunity Green Business Conference at Los Angeles Center Studios on November 8-9, 2012
- The Institute of Heating and Air Conditioning Industries at the Pasadena Convention Center on November 14, 2012
- Desert Living Home Show at the Palm Springs Convention Center on November 16-18, 2012
- Green Festival Los Angeles at the Los Angeles Convention Center on November 17-18, 2012
- Northeast LA Home Expo and Housing Rescue Fair in Highland Park on November 17, 2012
- Indio Tamale Festival in Downtown Indio on December 1 and 2, 2012
- California Farm Bureau Federation Trade Show at the Pasadena Convention Center on December 2 and 3, 2012
- Association of California Water Agencies Fall Conference & Exhibition in San Diego on December 5-6, 2012

Workshops

Six informational workshops were presented during Q4:

- Solar Water Heating Basics for Single-family Residences
    - Santa Clarita, California, on October 10, 2012

- Solar Water Heating Basics for Commercial Customers
    - Santa Clarita, California, on October 23, 2012

- Solar Water Heating Basics for Single-family Residences
    - Rancho Cucamonga, California, on November 8, 2012

- Solar Water Heating Basics for Multi-family Dwellings
    - Rancho Cucamonga, California, on November 15, 2012

- Solar Water Heating Basics for Single-family Residences
    - Palm Springs, California, on December 5, 2012

- Solar Water Heating Basics for Commercial Customers
    - Palm Springs, California, on December 6, 2012

External Communications

Paid media was utilized during Q4 to embellish the statewide outreach in a micro-targeted approach to build awareness throughout the service territory around workshop availabilities. In the Santa Clarita area, print ads for the single-family workshop were placed in *The Signal* and the *Los Angeles Daily News* on October 3, 2012, and in the *Los Angeles Times – San Fernando Valley/Ventura Zone* on October 6, 2012. Print ads for the commercial workshop were placed in the *San Fernando Valley Business Journal* on October 15, 2012, and in *The Signal* and the *Los Angeles Daily News* on October 16, 2012. Also, an e-newsletter announcement was sent to targeted commercial customers in the area.

For the Rancho Cucamonga workshops in San Bernardino County, a four-week flight of the statewide TV commercial aired on KVCR-TV, the PBS affiliate for the Inland Empire, and on select cable systems and channels that reached our campaign target demographic. In addition, the residential-themed statewide radio ad, "Polar Bear Club" aired on radio stations licensed to communities in the Inland Empire over the same four-week period. The TV and radio schedules were followed by print ads in the Inland Valley Daily Bulletin for the single-family workshop on October 25, 2012 and November 1, 2012 and for the multi-family workshop on November 5, 2012 in the Business section and on November 8, 2012. In addition, print ads for the multi-family workshop were placed in area trade publications, Rental Housing Today on November 1, 2012, Apartment Management Magazine - Inland Empire on November 1, 2012, and Apartment Management Magazine - San Gabriel Valley on November 1, 2012.

In Palm Springs, a four-week flight of the statewide TV commercial aired on broadcast stations in the Palm Springs market and on select cable systems and channels that reached our campaign target demographic in that part of Riverside County. Plus, the residential-themed statewide radio ad, "Polar Bear Club" aired on radio stations licensed to communities in the Palm Springs market over the same four-week period. Print ads for the commercial workshop were placed in the Business section of *The Desert Sun* on November 18, 2012 and November 25, 2012 and for the

single-family workshop in the Main section of *The Desert Sun* on November 23, 2012 and November 28, 2012. Also, an e-newsletter announcement was sent to targeted commercial customers in the area as well.

Internal Development

During Q4, copies of the updated CSI-Thermal Program brochures were provided to all Regional Sales Managers for distribution to their customers throughout the service territory.

Website Development

SCG updated the content on its dedicated CSI-Thermal Program page: http://www.socalgas.com/solar, during Q4. The online sign-up form functionality for workshops was expanded to accommodate multiple workshops over extended periods of time to allow customers to register for them in advance.

Customer Contact Center

SCG continued to provide information updates to its Customer Contact Center, 1-800-GAS-2000, in an effort to answer and address SWH questions and program inquiries. Interested participants are also provided information and links to the SCG CSI-Thermal Program webpage in an effort to direct and address the callers' questions. SCG continued to actively monitor its swh@socalgas.com e-mail account for SWH inquiries.

6. Conclusions

The CSI-Thermal Program continued to see increases in customer participation during Q4 2012. This is due in part to the incentive increases that took effect in October 2012 as well as the steady flow of low income applications.

With the issuance of the proposed decision addressing other solar thermal end-uses on January 14, 2013, the PAs will dedicate a significant amount of time in 2013 addressing technical and administrative requirements needed to incorporate this enhancement into the existing program's framework. The PAs are looking forward to the inclusion of other solar thermal end-uses and further increasing program participation.

The PAs also await the CPUC's decision on expanding the program to include multifamily residential, governmental, educational, and nonprofit solar pool heating. Significant enhancements are on the horizon, and the PAs are extremely excited about what these changes will bring to the program.