California Solar Initiative Thermal Program

Quarterly Progress Report

(January 1 – March 31, 2013)

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1. Executive Summary

1.1. Introduction

The California Center for Sustainable Energy (CCSE), on behalf of the California Solar Initiative (CSI) Thermal (CSI-Thermal) Program Administrators (PAs)[1], submits this First Quarter (Q1), 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 March 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

On February 1, 2013, PG&E, on behalf of the CSI-Thermal PAs, filed a joint advice letter with the Commission to propose various amendments to the CSI-Thermal Program Handbook. The advice letter was approved, effective March 4, 2013.

On February 4, 2013, SCG, on behalf of the CSI-Thermal PAs, filed joint comments with the Commission on the Proposed Decision of President Michael R. Peevey ("PD"), which proposed to modify D.10-01-022 to provide incentives to process heat applications, solar cooling technologies, space heating technologies, and systems that combine multiple applications.

On February 11, 2013, SCG, on behalf of the CSI-Thermal PAs, filed specific comments with the Commission in reply to opening comments filed by both the Division of Ratepayer Advocates ("DRA") and the California Solar Energy Industries Association ("CALSEIA"), on the aforementioned PD to modify D.10-01-022.

On March 6, 2013, D.13-02-018 was subsequently issued, modifying D.10-01-022 to allow CSI-Thermal rebates for expanded solar thermal applications such as process heat, solar cooling and space heating systems. Additionally, this Decision replaces the current 70/30 incentive payment process for systems larger than 250 kWth with a performance-based incentive (PBI) method. The new PBI method will pay rebates based on actual metered energy displaced, on a quarterly basis over a two-year period. All new technologies will be required to use the PBI while multi-family or

[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.

commercial domestic hot water end-uses less than or equal to 250 kWth will continue to receive a one-time payment with an option to participate in the PBI program. On June 27, 2013, the PAs will file a Tier 2 advice letter and a revised CSI-Thermal Program Handbook to incorporate these program changes.

Furthermore, Assembly Bill 2249 (Stats. 2012, Ch. 607) took effect on January 1, 2013. The bill expands eligibility for CSI-Thermal incentives to include multifamily residential, governmental, educational, and nonprofit solar pool heating systems for natural gas customers. The bill requires the CPUC to determine an appropriate division of funds between SWH systems and solar pool heating systems and implement the changes to the CSI-Thermal Program no later than July 1, 2013.

Additionally, it is important to note that at this time, CCSE has exhausted the incentive budget for the residential CSI photovoltaic (PV) program in SDG&E territory. Since the CSI PV and CSI-Thermal electric and propane SWH programs share the same incentive budget, submitted applications for single-family residential electric- and propane-displacing SWH projects are put on a waitlist on a first-come, first-served basis to ensure that the overall budget is not over subscribed. Full subscription of the single-family residential electric/propane incentive budget does not affect any natural gas-displacing applications or multifamily/commercial electric or propane-displacing applications. Similarly, PG&E is nearing full reservation of Step 10 of their Residential CSI PV budget. A combined waitlist process has been offered by PG&E that allows CSI-Thermal single-family residential electric and propane-displacing SWH projects and CSI residential PV projects to be placed on the waitlist on a first-come, first-served basis.

Lastly, the PAs continue to effectively manage the on-going administration of the CSI-Thermal Program while balancing the need to address upcoming program changes. Since program inception, more than 900 projects have been completed, accounting for over $10M 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 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

[3] As of March 31, 2013.

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

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 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 retroactive to projects that were in application review as of July 4, 2012.

On March 6, 2013, D.13-02-018 was issued to implement CSI-Thermal rebates for expanded solar thermal applications, such as process heat, solar cooling and space heating systems. The PAs will file a Tier 2 advice letter on June 27, 2013 with a revised CSI-Thermal Program Handbook incorporating the program changes.

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

[5] Public Utilities Code § 2860-2867

[6] D.10-01-022

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.

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 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[7] 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.

[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 Program 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] Rebates are available for qualifying natural gas-and electric-displacing systems that were installed within 24 months after the date

[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.

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 March 31, 2013, CSI-Thermal Program expenditures totaled $23, 892,324. 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.

Table 7: CSI-Thermal Expenditures by PA

Natural Gas and Electric/Propane CSI-Thermal Program Expenditure Data January 1, 2010 to March 31, 2013					
Expenditure Type	**CCSE**	**PG&E**	**SCE**	**SCG**	**Total**
Administration	$1,119,283	$2,628,430	$615,028	$1,613,958	**$5,976,699**
Market Facilitation	$630,359	$3,663,801	$455,222	$2,961,628*	**$7,711,010**
Measurement & Evaluation	$3,849	$2,543	$0	$0	**$6,392**
Incentives Paid	$2,691,811	$5,560,484	$38,800	$1,907,128	**$10,198,223**
Total	**$4,445,302**	**$11,855,258**	**$1,109,050**	**$6,482,714**	**$23,892,324**

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

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

Natural Gas January 1 – March 31, 2013				
Expenditure Type	**CCSE**	**PG&E**	**SCG**	**Total**
Administration	$66,225	$140,369	$149,022	**$355,616**
Market Facilitation	$72,738	$290,344	-$73,698*	**$289,384**
Measurement & Evaluation	$529	$0	$0	**$529**
Incentives Paid	$611,807	$565,312	$384,540	**$1,561,659**
Total	**$751,299**	**$996,025**	**$459,864**	**$2,207,188**

* This amount also reflects total Statewide M&O expenses including allocations to be reimbursed by other Program Administrators. The negative amount includes accrual reversal from the previous quarter and collection of co-funding payments from other PAs for Statewide M&O program.

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

Electric/Propane January 1 – March 31, 2013				
Expenditure Type	**CCSE**	**PG&E**	**SCE**	**Total**
Administration	$17,721	$49,030	$45,804	**$112,555**
Market Facilitation	$18,464	$81,938	-$26,403*	**$73,999**
Measurement & Evaluation	$0	$0	$0	**$0**
Incentives Paid	$5,383	$21,550	$6,735	**$33,668**
Total	**$41,568**	**$152,518**	**$26,136**	**$220,222**

* The negative amount reflects a reversal of an accounts payable accrual

4. Program Progress

The PAs spent much of Q1 2013 drafting and implementing the program changes filed with the advice letter on February 1, 2013. The PAs also dedicated significant time addressing future expansion of the CSI-Thermal Program to include solar thermal applications, such as process heat, solar cooling and space heating systems as listed in D.13-02-018.

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 Q1 2013, 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
	Q1	Q1	Q1	
APPLICATIONS RECEIVED				
Application (Number)	1	19	25	45
Incentives ($)	1,174	41,239	49,916	92,329
Capacity (First Year Expected Energy Displaced in therms)	70	2,463	2,916	5,449

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 ($)*	7,401	10,228	8,634	8,754
Average Project Cost per Unit of First Year Energy Displaced ($/therm)*	$66.66	$89.00	$75.58	$77.08

*Since program inception

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

	CCSE	PG&E	SCE	Total
	Q1	Q1	Q1	
APPLICATIONS RECEIVED				
Applications (Number)	6	17	7	30
Incentives ($)	7,893	25,460	11,982	45,335
Capacity (First Year Expected Energy Displaced in kWh)	15,264	53,765	25,171	94,200

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 ($)*	7,420	8,132	7,990	7,847
Average Project Cost per Unit of First Year Energy Displaced ($/kWh)*	$2.64	$2.90	$2.43	$2.66

*Since program inception

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

	CCSE	PG&E	SCG	Total
	Q1	Q1	Q1	
APPLICATIONS RECEIVED				
Application (Number)	7	6	23	36
Incentives ($)	424,089	619,048	1,107,709	2,150,846
Capacity (First Year Expected Energy Displaced in therms)	29,187	48,171	76,316	153,674
UNDER REVIEW Incentive Claims				
Application (Number)	5	11	8	24
Incentives ($)	279,151	415,654	167,506	862,311
Capacity (First Year Expected Energy Displaced in therms)	19,212	29,781	11,534	60,527

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 ($)*	136,330	73,384	55,922	88,545
Average Project Cost per Unit of First Year Energy Displaced ($/therm)*	$42.30	$45.30	$37.92	$41.84

*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 Q1	PG&E Q1	SCE Q1	Total
APPLICATIONS RECEIVED				
Application (Number)	2	N/A	N/A	2
Incentives ($)	12,880	N/A	N/A	12,880
Capacity (First Year Expected Energy Displaced in kWh)	15,333	N/A	N/A	15,333
UNDER REVIEW Incentive Claims				
Application (Number)	1	N/A	N/A	1
Incentives ($)	1,440	N/A	N/A	1,440
Capacity (First Year Expected Energy Displaced in kWh)	3,429	N/A	N/A	3,429

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 ($)*	N/A	58,793	7,630	33,212
Average Project Cost per Unit of First Year Energy Displaced ($/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
	Q1	Q1	Q1	
APPLICATIONS RECEIVED				
Application (Number)	12	20	1	33
Incentives ($)	279,373	254,578	16,442	550,393
Capacity (First Year Expected Energy Displaced in therms)	14,528	13,862	855	29,245
UNDER REVIEW Incentive Claims				
Application (Number)	10	21	14	45
Incentives ($)	229,529	183,166	285,528	698,223
Capacity (First Year Expected Energy Displaced in therms)	11,936	9,777	15,056	36,769

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 ($)*	75,185	57,926	71,727	68,279
Average Project Cost per Unit of First Year Energy Displaced ($/therm)*	$49.40	$58.20	$54.10	$53.90

*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 are moved forward as quickly as possible. Tables 20 through 22 reflect the reporting period from January 1 through March 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 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 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
	Q1	Q1	Q1	
Multi-family/ Commercial				
CCSE	23.53%	100.00%	0.00%	17
PG&E	100.00%	100.00%	0.00%	25
SCE	N/A	N/A	N/A	0
SCG	84.00%	100.00%	0.00%	25

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
	Q1	Q1	Q1	
No Inspection: Percentage of applications without inspection with processing time between Incentive: Application Review and Incentive: Approved as described.				
CCSE	75.00%	75.00%	25.00%	4
PG&E	100.00%	100.00%	0.00%	22
SCE	100.00%	100.00%	0.00%	4
SCG	100.00%	100.00%	0.00%	13
Inspection: Percentage of applications with inspection with processing time between Incentive: Application Review and Incentive: Approved as described.				
CCSE	0.00%	0.00%	100.00%	1
PG&E	66.67%	100.00%	0.00%	12
SCE	100.00%	100.00%	0.00%	1
SCG	50.00%	100.00%	0.00%	6
Percentage of applications with processing time between Incentive: Application Review and Incentive: Paid as described.				
CCSE	40.00%	60.00%	40.00%	5
PG&E	83.87%	100.00%	0.00%	31
SCE	100.00%	100.00%	0.00%	4
SCG	78.57%	100.00%	0.00%	14

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	92.86%	100.00%	0.00%	14
PG&E	100.00%	100.00%	0.00%	21
SCE	N/A	N/A	N/A	0
SCG	100.00%	100.00%	0.00%	10
Inspection: Percentage of applications with inspection with processing time between Incentive: Application Review and Incentive: Approved as described.				
CCSE	0.00%	0.00%	100.00%	2
PG&E	88.89%	100.00%	0.00%	9
SCE	N/A	N/A	N/A	0
SCG	14.29%	100.00%	0.00%	7
Percentage of applications with processing time between Incentive: Application Review and Incentive: Paid as described.				
CCSE	25.00%	75.00%	25.00%	8
PG&E	42.31%	100.00%	0.00%	26
SCE	N/A	N/A	N/A	0
SCG	43.75%	81.25%	18.75%	16

5. Market Facilitation

5.1 Ongoing Digital Elements of Statewide Marketing Campaign

The baseline of ongoing outreach materials in the digital domain that was established in Q2 2012 and maintained in Q3 and Q4 2012, was continued in Q1 2013. These digital outreach materials include an internet landing page [WaterHeatedbytheSun.com], a 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 customers 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 (BTN) was used to deliver the business-themed animated banner ad to targeted commercial sites. The optimization effort in Q4 2012 to better define the targeted keywords in Google searches continued to deliver higher levels of referrals to the "WaterHeatedbytheSun.com" option to information-seekers.

5.2 Trade Print Publications

The targeted industry trade print publications placement effort begun in Q3 and Q4 2012, continued in Q1 2013. Specifically, the ads appeared in:

January

- "Food Engineering"
- "Commercial Property Management"
- "Building Operating Management"
- "Lodging Hospitality" – Mid-October to mid-November issue
- "Reeves Journal"
- "California Assisted Living Association" – Winter Issue – Quarterly
- "California School Business" – Winter Issue - Quarterly
- "California Plumbing Heating and Cooling Contractors' Connection" - Fall/Winter Issue

February

- "Commercial Property Management"
- "Building Operating Management"
- "Food Management"
- "Reeves Journal"

March

- "Wine Business Monthly"
- "National Real Estate Investors"
- "California School Business" – Spring Issue - Quarterly

5.3 E-mail Newsletter Blasts

During Q1 2013, the following targeted business publication E-newsletter was distributed:

- "Building Operating Management"
    - Tuesday, March 5, 2013

5.4 Refreshed Residential Animated Banner Ad

During Q1 2013, Fraser Communications developed refreshed creative for the residential animated banner ad that highlighted the increased incentive rates available from the CSI-Thermal Program. Energy Division staff reviewed and approved the storyboards for the animation during Q1 2013 with deployment scheduled for Q2 2013.

5.5 Year-End Data Report

On February 19, 2013, Fraser Communications staff presented the Year-End Data Report for the Statewide Marketing Campaign to the PAs' marketing and program teams and Energy Division staff. The Report documented the delivered impressions, click-throughs, and landing page activity for the Campaign from inception to the end of the calendar year. The Report confirmed that web traffic on "WaterHeatedbythesun.com" was higher when traditional media such as spot TV, cable TV, spot radio, NPR radio or print were supplementing the digital outreach, and highest when multiple traditional media were running simultaneously.

5.6 Spring Finale Media Plan

At the beginning of Q1 2013, the Marketing & Outreach representatives reviewed the status of the two-year Statewide Market Facilitation Plan with Fraser Communications and confirmed that the campaign was on-plan and on-budget. In the process, the representatives and Fraser staff identified the resources in the budget that had gone unspent and were still available, including the contingency fund that had not been needed, the experiential marketing proposal that proved to be impractical, production and research costs that came in under budget, and nearly all of the $500,000 held in the reserve account for other statewide activities. A cost-managed approach was taken to devise a Spring Finale Media Plan to optimize the efficiency of the digital infrastructure buy until the end of June and reinforce it with a strategic four-week traditional media buy around Earth Day in spot TV, spot radio and the "Green is Universal" sponsorship that the Year-End Data Report showed was the most effective buy at the launch. The traditional media buy will be embellished with a four-week digital buy on the highly-targeted Pandora internet radio and the Huffington Post. The Plan will be implemented in Q2 2013 and run until the end of the quarter.

5.7 Statewide Continuation Effort

Understanding that the completion of the two-year Fraser Agreement and Statewide Market Facilitation Plan does not mark the end of local and statewide marketing efforts for the CSI-Thermal Program, the M&O Working Group during Q1 2013 developed a proposal for a statewide continuation effort to be included in the PAs' six-month Local Market Facilitation Extension Plans to be submitted to the CPUC for approval on April 2, 2013. The statewide continuation effort would sustain an optimized digital infrastructure approach along with plans for new brochures, a new business internet banner ad and a press release distribution focused on the pending expansion of the Program to include non-residential swimming pools and additional solar thermal technologies for Q3 and Q4 2013, while anticipating the development of a robust statewide effort in the PAs' 2014 Local Market Facilitation Plans.

5.8 Other Activities

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

5.9 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 Q1 2013 and the number of attendees. As of April 1, 2013, there are 474 licensed eligible solar contractors statewide.

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

	Q1 2013	
PA	**Number of Workshops**	**Number of Attendees**
CCSE	2	29
PG&E	3	56
SCE[12]	1	7
SCG[14]	2	52
Total	**9**	**166**

[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.

5.10 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.

5.10.1 California Center for Sustainable Energy

Training and Education

During Q1 2013, CCSE continued to educate the community about SWH and its benefits through targeted workshops for homeowners and industry professionals.

A brief synopsis of each workshop/ training offered during Q1 2013 follows:

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

- 1 workshop
- 22 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.

- 2 workshops
- 29 attendees

Skip's Tips:
Advanced solar thermal workshop conducted by CCSE's solar water heating technical expert, Skip Fralick.

- 3 workshops
- 59 attendees

Solar Water Heating Installation and Professional Training (2-day and 5-day):
CCSE partnered with National Solar Trainers (NST) to offer two-day and five-day trainings geared toward preparing participants to become solar thermal installers, designers, sales and marketing professionals or entrepreneurs.

- 2-day: 11 attendees
- 5-day: 25 attendees

Workshop Promotion and Follow up

CCSE promoted its ongoing workshop offerings for both homeowners and contractors through a number of online activities during Q1 2013.

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 entice more people to register for SWH workshops and is also improving the conversion rate of those who register to become actual attendees.

Online Promotion:

CCSE utilized a number of in-house resources to spread the word about CSI-Thermal workshops, including the *Roundup 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:

- *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 more than 11,000 subscribers during Q1 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. The January-February issue included two stories pertaining to the CSI-Thermal Program.
    - CSI-Thermal Heats Up During 2012: This article addressed CSI-Thermal Program highlights from 2012 including rebate increases, launch of the low-income program and the $5 million coordinated statewide campaign led by the four CSI-Thermal PAs.
    - Solar Shines Brightly on Golden State: This article provides a year in review of both the CSI PV and CSI-Thermal Programs.
    - CPUC Broadens the CSI-Thermal Program (March – April Newsletter): This article covers the recent expansion of the CSI-Thermal Program and introduces three new technologies to the program including process heat, solar cooling technologies, as well as space heating and combination systems. The article also promotes a public workshop held on April 23, 2013.
- 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.
    - A special Valentine's Day-themed solar water heating graphic was created to generate some buzz and help promote a "solar water heating basics for homeowner's" workshop taking place near Valentine's Day. The graphic was uploaded to CCSE's Facebook wall and generated much interest while also demonstrating the effectiveness of this simple marketing tactic.

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

CCSE continued its partnership with National Solar Trainers during Q1 2013. The following marketing tactics enabled CCSE to max-out registration for the 5-day training and to continue providing in-depth SWH training programs to fully prepare attendees to enter into this rapidly growing market.

- Sent direct e-mail to CCSE's database of contacts who had previously attended SWH classes and trainings.
- Partnered with Energy Upgrade California (EUC) to promote solar thermal trainings to home performance contractors and energy raters in the San Diego region.
    - Sent targeted e-mail invites to EUC's list of contacts
    - Handed out flyers and announced the solar thermal training to attendees of a "Home Performance Marketing Workshop" that CCSE was hosting for EUC eligible contractors

Events and Outreach

During Q1 2013, CCSE took advantage of the off-season winter months to develop and file a comprehensive local market facilitation plan for the remainder of 2013. Central to CCSE's 2013 plan is a scaled-up events and outreach strategy including targeted outreach to select communities in San Diego. Much of this planning and research took place during Q1 2013, with the following efforts already underway:

- CCSE's CSI-Thermal team is currently planning the design and construction of a trade show display as well as an outdoor booth property that will allow for a branded and more prominent appearance at events in the community.
- CCSE's CSI-Thermal team began working with CCSE's analyst team to inform a highly targeted advertising and outreach campaign to select communities. This campaign will entail a direct mail component as well as conducting workshops in select communities based on demographic and psychographic data that corresponds to CSI-Thermal's residential target audience.
- CCSE began conducting phone interviews to identify promising residential case studies that will help homeowners understand and connect to solar water heating.
- CCSE's CSI-Thermal team has been actively planning event and outreach opportunities for the remainder of 2013. The team is already booked to have a presence at the upcoming SDG&E Energy Showcase and the Plumbing-Heating-Cooling Contractors (PHCC) Association Trade Show during the month of May.

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

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 solar water heating and available rebates.

5.10.2 Pacific Gas and Electric Company

The first quarter of 2013 represented a relatively dormant time for PG&E's local marketing and outreach efforts as it is not a seasonally active time period.

While we did not wish to fall off the consumer radar, the Statewide activities continued to provide marketing air cover for Solar Water Heating awareness. A considerable amount of time in Q1 2013 was dedicated to building the July-Dec ember 2013 marketing plan, filed April 2, 2013.

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 three different SWH courses in Q1 2013:

- **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.

Print

Starting in March 2013, PG&E placed a 4-color, full-page print ad in targeted demographics including:

- *Alive Magazine* – Alamo, Danville, and Walnut Creek, California
- *MNI Luxury Magazines* (Including Elle Décor, Food & Wine, O: The Oprah magazine, Real Simple, Travel + Leisure) – Sacramento DMA, including El Dorado Hills
- *Sacramento Magazine* – Sacramento, including El Dorado Hills

SF Apartment Association

On February 25, 2013, PG&E was represented by San Francisco Department of the Environment at the San Francisco Apartment Association Monthly Member meeting to discuss SWH and virtual net metering.

San Francisco Apartment Magazine (February 2013 Edition): The magazine featured an article about solar water heating, which was a written as part of a partnership with the San Francisco Department of the Environment. The magazine goes to the San Francisco Apartment Association's 2,700 members, and the publisher estimates total circulation at 5,400.

Excelsior Action Group – San Francisco

Through PG&E's partnership with San Francisco Department of the Environment, solar water heating was featured in the Excelsior Action Groups newsletter in March (see link below).

http://www.eagsf.org/1/post/2013/03/-save-money-and-help-the-environment-with-solar-water-heating.html

San Francisco Green Business Newsletter

Through PG&E's partnership with San Francisco Department of the Environment, solar water heating was featured in the SF Green Business Newsletter in March**.**

5.10.3 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 held one CSI Thermal Contractor and Self-Installer Training class at its Energy Education Center in Irwindale on February 12, 2013, with a total of seven attendees.

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 six HSC Webinars with a total of 48 attendees in the first quarter of 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 four Solar Connection Events in Long Beach, Claremont, Palm Desert and Rancho Cucamonga with 249 attendees in the first quarter of 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 the first quarter of 2013, SCE held two Commercial Solar Workshops at its Energy Education Center (EEC) in Irwindale with a video conference to its EEC in Tulare with a total of 38 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. Program fact sheets, bid comparison forms and other related information were distributed at the following events:

- Black History Month Customer Celebration, SCE Energy Education Center, Irwindale, February 1, 2013
- VerdeXchange 2013 Green Conference, L.A., February 4-5, 2013
- World Ag Expo, Tulare, February 12-14, 2013
- Solar Power Gen, San Diego, February 13-15, 2013
- SCE Contractor Information Session & Fair, Pomona, March 22, 2013;

Local Market Facilitation Plan

Following discussions with Fraser Communications regarding potential CSI-Thermal Program tactics, the team at Fraser developed a 2013 local media plan for SCE that is complementary to the statewide 2013 CSI Thermal market facilitation efforts; focuses on potentially high-reward

geographic and market segments in SCE's service territory; incorporates a variety of media, including trade print, transit media (hybrid bus wraps), "green-focused" business event and cinema ads; and uses pre-existing creative (with minor SCE-specific adjustments) to help limit unnecessary expenditures.

The tactics began the week of April 16, 2013, (to complement the statewide effort) and will end the week of August 19, 2013.

In addition, SCE has been reaching out to its customers who have already installed solar water heating systems in an effort to develop case studies for the program.

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.

SCE.com recently completed its redesign that has resulted in a more streamlined website requiring fewer clicks to get customers where they want to go. Moreover, there are now separate channels for residential and commercial customers seeking information on the CSI-Thermal Program, making the navigation easier.

5.10.4 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 two workshops with 52 attendees during Q1 2013.

Trade Shows and Events

The CSI-Thermal Program had a presence at the following shows and events during Q1 2013 at which SCG participated as an Exhibitor. At each venue, the revised statewide brochures as well as promotional items were distributed.

- Black College Expo on February 2, 2013, at the Los Angeles Convention Center
- Inland Empire Manufacturer's Summit on February 8, 2013, at the Ontario Doubletree Hotel
- World Agricultural Show & Expo on February 12-14, 2013 in Tulare

- FLOW Expo of the Plumbing, Heating, and Cooling Contractors Association - Greater Los Angeles Area on March 2, 2013, at the Long Beach Convention Center
- Desert Living Home Show on March 8-10, 2013, at the Palm Springs Convention Center
- 2013 High School Conference Expo on March 13, 2013, at the Long Beach Convention Center
- Lakewood Earth Day and 10K on March 16, 2013, in Lakewood
- "Bugstock" on March 30, 2013, at the Orange County Fairgrounds

Workshops

Four informational workshops were presented during Q1 2013, with two additional that were planned in Bakersfield but cancelled at the last minute due to severe weather and hazardous travel conditions that closed Interstate 5 over the Tejon Pass:

- Solar Water Heating Basics for Single-family Residences
  - Torrance, California, on January 22, 2013
  - Partnership with South Bay Environmental Services Center

- Solar Water Heating Basics for Commercial Customers
  - Torrance, California, on January 24, 2013
  - Partnership with South Bay Environmental Services Center

- Solar Water Heating Basics for Single-family Residences
  - Bakersfield, California on February 20, 2013
  - Cancelled – Rescheduled for May 2013

- Solar Water Heating Basics for Commercial Customers
  - Bakersfield, California on February 21, 2013
  - Cancelled – Rescheduled for May 2013

- Solar Water Heating Basics for Multi-family Dwellings
  - Irvine, California, on March 19, 2013
  - Partnership with the City of Irvine

- Solar Water Heating Basics for Single-family Residences
  - Irvine, California, on March 21, 2013
  - Partnership with the City of Irvine

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

External Communications

Paid media was utilized during Q1 2013 to enhance the statewide outreach in a micro-targeted approach to build awareness throughout the service territory around workshop availabilities.

In the Torrance/South Bay area, the following paid media was deployed:

- Cable TV – January 2-20, 2013
  - Statewide "Green Routine" TV commercial
  - Torrance, Palos Verdes, South Bay, West LA, Westside/Beverly Hills, Santa Monica
- KCRW-FM (NPR) - January 2-20, 2013
  - Featuring 30-second copy for the Torrance workshop dates that was reviewed and approved by Energy Division staff in Q4 2012
- LA Times- South Bay/Southeast Zone on January 12, 2013
  - Print ad for Single-family workshop
- Torrance Daily Breeze – January 5, 2013 and January 15, 2013
  - Print ad for Single-family workshop
- Torrance Daily Breeze – January 17, 2013
  - Print ad for Commercial workshop in business section
- LA Business Journal – January 7, 2013 and January 14, 2013
  - Print ads for Commercial workshop

In Bakersfield, the following paid media was deployed:

- Cable TV - January 21, 2013 to February 17, 2013
  - Statewide "Green Routine" TV commercial
  - Bakersfield
- Spot TV - January 21, 2013 to February 17, 2013
  - Statewide "Green Routine" TV commercial
  - Bakersfield
- Spot Radio – January 21, 2013 to February 17, 2013
  - Bakersfield
  - Residential-themed Radio Ad – "Polar Bear Club"
  - Business-themed Radio Ad – "Sustainability Manager"
- Print
  - Bakersfield Californian - February 6, 2013 and February 13, 2013
    - Single-family workshop
  - Bakersfield Californian - February 14, 2013
    - Commercial Workshop
  - Visalia Times Delta/Tulare Advance-Register - February 6, 2013 and February 14, 2013
    - Single-family workshop
  - Visalia Times Delta/Tulare Advance-Register - February 7, 2013
    - Commercial workshop
  - Tulare County Magazine - February 13, 2013
    - Single-family workshop
  - Kern Business Journal - February 11, 2013
    - Commercial workshop
  - Kings County Farm Bureau Update - January 18, 2013
    - Commercial workshop
  - CA Farmer - February 1, 2013
    - Kern, Tulare and Kings Counties
  - Tulare County Farm Bureau News - February 1, 2013
    - Commercial workshop

    - The Farm News - January 21,2013
        - Commercial workshop
        - Kern County

Plus, flyers for the Bakersfield workshops were distributed at the World Ag Expo in Tulare on January 12, 13 and 14, 2013, and a sign-up sheet was available at the SoCalGas booth which featured the CSI-Thermal Program.

In Irvine, the following paid media was deployed:

- Cable TV - February 18, 2013 to March 17, 2013
    - Statewide "Green Routine" TV commercial
    - City of Irvine and Coastal Cities
- Broadcast TV (KOCE-TV/PBS) - February 18, 2013 to March 1, 2013
    - Statewide "Green Routine" TV commercial
    - Orange County, Los Angeles County
- Print:
    - OC Metro Magazine - March 1, 2013
        - Multi-family workshop
    - Orange County Business Journal – March 4, 2013 and March 11, 2013
        - Multi-family workshop
    - Apartment News - March 1, 2013
        - Multi-family workshop
    - Apartment Management Magazine - March 1, 2013
        - South Bay/Long Beach, Orange County Zones 2 and 5
        - Multi-family workshop
    - Orange County Register - March 9, 2013 and March 14, 2013
        - Single-family workshop
    - Orange County Register - March 8, 2013
        - Multi-family workshop
    - LA Times-OC Zone - March 9, 2013
        - Single-family workshop

In addition to paid media, e-mail newsletters promoting the Torrance and Bakersfield commercial workshops were sent to targeted SCG business customers in those areas. Also, workshops were posted on the "GoSolarCalifornia" community calendar.

Internal Development

During Q1 2013, CSI-Thermal staff stepped up co-ordination with the Local Government Partnerships team to promote the Torrance, Bakersfield, and Irvine workshops in those communities.

Website Development

During Q1 2013, SCG updated the workshop and contractor/installer training session availabilities in its dedicated CSI-Thermal Program section: http://www.socalgas.com/solar.

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 Q1 2013. 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 final decision addressing other solar thermal end-uses on March 6, 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. As evidenced by the recent Regulatory and Legislative updates, significant enhancements are on the horizon, and the PAs look forward to the positive changes that they will bring to the CSI-Thermal Program.