California Solar Initiative Thermal Program

Quarterly Progress Report; Q1 2014

(January 1, 2014 – March 31st, 2014)

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Southern California Gas Company

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1.1. Introduction

Pacific Gas and Electric Company (PG&E), on behalf of the California Solar Initiative (CSI) Thermal (CSI-Thermal) Program Administrators (PAs)[1], submits this First Quarter (Q1) 2014 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 inception, January 1, 2010 through March 31, 2014. This report also highlights the program's specific progress and achievements for the first quarter of 2014. 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

The first quarter of 2014 has been an eventful time. As stated in the Q4 2013 Progress Report, the program engineers, working with TESS, developed the pool model based on the TRNSYS Type 344, as required by the pool decision. Due to significant performance variations which required further evaluation, the PA's requested and were granted by the PUC an extension before launching the pool calculator. As such, the calculator was officially released on January 14, 2014. After this launch there were still concerns from Industry and CALSEIA about pool calculator parameters. The PA's spent much of Q1 2014 addressing the engineering principles behind the calculator and communicating our work with CALSEIA. Also noteworthy during Q1, the CPUC released on January 29, 2014 their "Review of the Incentive Levels and Progress of the California Solar Initiative – Thermal Program". This CPUC document contains a variety of analyses and conclusions about the CSI-Thermal Program, including why program adoption has been low to date, and the Report proposes a number of observations and recommendations. They will be briefly discussed in this Progress Report.

[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.

2. Introduction

2.1. Program Background

In January 2007, the CPUC launched the CSI, a $2.16 billion ratepayer-funded incentive program with a goal of installing 1,940 megawatts (MW) of new solar generation and creating a sustainable solar industry by 2016.[3] State law allows up to $100.8 million of CSI funds to be used for incentives for solar thermal technologies that displace electricity usage, but the CPUC deferred eligibility for allowing solar water heating (SWH) technologies in the CSI until a pilot program for SWH was conducted in the service territory of San Diego Gas & Electric Company (SDG&E). Starting in July 2007, CCSE administered a $2.59 million pilot program for SWH incentives in SDG&E's service territory (Pilot Program). In D.08-06-029, the Commission extended the Pilot Program until the earlier of December 31, 2009, or when the budget was exhausted.

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

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

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

On August 6, 2012, the Commission issued D.12-08-008, effective on August 2, 2012, which modified the incentive structure for the single-family and multi-family/commercial mainstream

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

[4] Public Utilities Code § 2860-2867

[5] D.10-01-022

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

2.2. Program Goals

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

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

On August 15, 2013, the CPUC issued Decision 13-08-004, effective date December 14, 2013. The decision modifies the CSI-Thermal Program to provide incentives for solar pool heating systems for

all applications with exception to single family residential systems. The decision required the PAs to develop a pool calculator based on the TRNSYS Type 344 model and incorporate the pool program into the existing commercial/multi-family incentive budget. The Pool Program is now active, and it is hoped that by adding incentives for solar pool heating systems the program can get closer to reaching the aforementioned goals.

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 budget; or (ii) until January 1, 2018. The incentive budget for the electric/propane-displacing portion of the program is available until the earlier of: (i) the budget caps have been reached; (ii) the CSI General Market Program budget has been exhausted, or (iii) January 1, 2017.

The $25 million natural-gas low-income incentive budget is allocated among CCSE, PG&E, and SCG in the same proportions as the total CSI-Thermal natural gas-displacing program presented in Table

1. Single-family and multi-family projects have no specific low-income incentive allocations. Incentives for low-income projects will be available until the earlier of: (i) the incentive budget is fully expended; or (ii) January 1, 2018. Table 3 displays the incentive allocation percentage and budget for each PA for the low-income natural gas-displacing SWH systems.

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

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

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

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

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

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

2.4. Incentive Structure

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

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

Table 4: Total Natural Gas Budget Allocation per Incentive Step

Effective January 1, 2013

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

*Swimming pool incentives are new to the Program as of Jan. 15, 2014.

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

Table 5: Electric/Propane-Displacing System Incentive Steps

Effective July 4, 2012

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

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

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

[6] 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.[7] A few key eligibility requirements are highlighted below:

- Customer site must be within the service territories of SCG (for natural gas only), PG&E, SCE (for electric only), or SDG&E.
- Single-family residential SWH systems must have a Solar Rating and Certification Corporation (SRCC) or International Association of Plumbing and Mechanical Officials (IAPMO) Standard-300 System Certification.[8]
- Solar collectors used in multi-family/commercial water heating must have SRCC or IAPMO Standard-100 Collector Certification.
- All components must be new and unused (with exceptions). All systems must have freeze and stagnation protection.
- For single-family projects, all Domestic Hot Water (DHW) end-uses are eligible.[9]
- For multi-family/commercial projects, eligible end uses include domestic hot water, commercial process heat, space heating, absorption chilling pool heating applications, and

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

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

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

combination systems.[10] Rebates are available for qualifying natural gas-and electric-displacing systems that were installed within 24 months after the date on the final signed-off permit. Propane-displacing systems are eligible for a CSI-Thermal Program incentive if a final permit was signed-off after June 14, 2011.

- SWH contractor or self-installer must complete a one-day mandatory training offered by the PAs.
- For specific details regarding low-income eligibility requirements, please see the CSI-Thermal Program Handbook.

3. Program Expenditures

From program inception through March 31, 2014, CSI-Thermal Program expenditures totaled **$39,640,316**. 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.

See Table 7, next page, for a breakdown of expenditures by PA.

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

Table 7: CSI-Thermal Expenditures by PA

Natural Gas and Electric/Propane CSI-Thermal Program Expenditure Data January 1, 2010 to March 31, 2014					
Expenditure Type	**CCSE**	**SCE**	**PGE**	**SCG**	**Total**
Administration	$1,478,808	$735,976	$3,405,429	$2,287,697	**$7,907,910**
Market Facilitation	$1,213,145	$746,440	$4,756,282	$4,726,768*	**$11,442,635**
Measurement & Evaluation	$10,369	$0	$4,435	$0	**$14,804**
Incentives Paid	$3,573,179	$61,702	$8,638,133	$8,001,953	**$20,274,967**
Total	**$6,275,501**	**$1,544,118**	**$16,804,279**	**$15,016,418**	**$39,640,316**

* This amount also includes 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, 2014 – March 31, 2014				
Expenditure Type	**CCSE**	**PG&E**	**SCG**	**Total**
Administration	$52,655	$192,933	$140,555	**$386,143**
Market Facilitation	$95,644	($209,519)*	$124,401**	**$10,526**
Measurement & Evaluation	$0	$94	$0	**$94**
Incentives Paid	$155,172	$558,234	$2,718,885	**$3,432,291**
Total	**$303,471**	**$541,743**	**$2,983,841**	**$3,829,054**

*This is a reversal of year end accruals over-estimated in 2013.

**This amount also includes total Statewide M&O expenses including allocations to be paid by other PA's.

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

Electric/Propane January 1, 2014 – March 31, 2014				
Expenditure Type	**CCSE**	**PG&E**	**SCE**	**Total**
Administration	$13,233	$45,601	$20,555	**$79,389**
Market Facilitation	$24,096	($100,192)*	$1,074	**($75,022)**
Measurement & Evaluation	$0	$31	$0	**$31**
Incentives Paid	$9,570	$1,275	$4,669	**$15,514**
Total	**$46,899**	**($53,285)**	**$26,298**	**$19,912**

* This negative represents a reversal of year-end accruals, which were over-estimated in 2013.

4. Program Progress

Program participation during Q1 of 2014 was not what the PA's had hoped for. It was expected that the launch of the Pool Program would result in increased program adoption and more incentives disbursed. But the complexity of the pool calculator required extensive research and this not only delayed its launch, but likely delayed market adoption. The PA's have done our best to manage complex scientific and economic decisions, while working collaboratively with Industry / CALSEIA. Some points of contention between Industry/CALSEIA and the Program PA's involved the effect of wind on unglazed collector performance, installation issues such as slope on pipes and collectors, flat roof installations, CPM monitoring, roof penetrations, azimuth (north-facing roofs) and header / riser issues including riser sagging. Most of these issues have been resolved.

Another interesting development during Q1 2014 involved the release by the CPUC Energy Division of their report titled, "Review of the Incentive Levels and Progress of the California Solar Initiative – Thermal Program", dated January 29, 2014. This report was submitted to the Legislature, as directed by Section 2867.1(b) of the PUC as established by AB2249 (Buchanan, 2012), and in accordance with Section 9795 of the Government Code.

In this report, the CPUC identifies some of the key factors leading to underperformance by the Program, most notably the start of the Program coincident with a precipitous drop in the price of natural gas. As payback period is a critical ingredient in decision-making, price of natural gas has been a longstanding barrier; one which the PA's cannot control. The Report called out many important issues listed here, in brief:

- Installation costs have not declined as expected
- Single Family sub-programs are performing much worse than the multifamily and commercial programs
- The 2012 increase in incentive levels has not led to a significant increase in program participation
- A substantial M&O program has been largely ineffectual for the single family program
- The low income program is doing relatively better than the general market program, especially in the multifamily market
- Avoided gas costs are lower than expected (due to economic crisis of 2008 and retail prices dropping by roughly 20%)
- The new technologies and the swimming pools sub-programs may breathe life into the Program.

The Report states the following Options are presently available to the Commission:

- Further front-loading of incentives, moving more money towards Steps 1 and 2
- Removal of separations between customer class incentive budgets, making incentives available on a "first come first served" basis
- Request for guidance and policy suggestions from parties; the Commission may take public comment and consider what changes to make in response to suggestions from the solar thermal industry, Program Administrators and other parties.

In light of this, the PA's and engineers, with our liaison from the CPUC (James Loewen), have embarked on conversations about modifying the Program to meet these significant challenges.

Applications, Cost and Other Data

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 2014, as well as the corresponding incentives and energy savings for those applications. Tables 11, 13, 15, 17, 19 & 20 show the average costs of systems for completed projects by PA and customer class since program inception.

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

	CCSE	PG&E	SCG	Total
	Q1	Q1	Q1	
APPLICATIONS RECEIVED				
Application (Number)	3	12	108	**123**
Incentives ($)	$4,401	$27,352	$145,440	**$177,193**
Capacity (First Year Expected Energy Displaced in therms)	270	1,761	8,421	**10,452**

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

	CCSE	PG&E	SCG	Overall Average
Average Project Cost per Single-Family Project ($)*	$7,382	$10,643	$9,577	**$9,201**
Average Project Cost per Unit of First Year Energy Displaced ($/therm)*	$67.31	$77.73	$99.96	**$81.66**

*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)	4	0*	3	**7**
Incentives ($)	$6,911	$0	$4,669	**$11,580**
Capacity (First Year Expected Energy Displaced in kWh)	13,346	0	8,647	**21,993**

Legend: Applications Received = All applications that moved to "Application Review" status during the reporting period.
*Budget currently exhausted for sing/fam resi electric/propane systems in PGE territory. All projects on waitlist status.

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

	CCSE	PG&E	SCE	Overall Average
Average Project Cost per Single-Family Project ($)*	$7,377	N/A	$8,004	**$7,691**
Average Project Cost per Unit of First Year Energy Displaced ($/kWh)*	$2.64	N/A	$2.47	**$2.55**

*Since program inception

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

	CCSE	PG&E	SCG	Total
	Q1	Q1	Q1	
APPLICATIONS RECEIVED				
Application (Number)	1	8	27	**36**
Incentives ($)	$4,529	$201,749	$1,348,160	**$1,554,438**
Capacity (First Year Expected Energy Displaced in therms)	647	13,976	103,568	**118,191**
UNDER REVIEW Incentive Claims				
Application (Number)	11	7	8	**26**
Incentives ($)	$637,396	$270,783	$300,626	**$1,208,805**
Capacity (First Year Expected Energy Displaced in therms)	47,423	19,459	20,690	**87,572**

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

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

	CCSE	PG&E	SCG	Total
Average Project Cost per Multi-family/commercial Project ($)*	$155,836	$76,666	$59,299	**$291,801**
Average Project Cost per Unit of First Year Energy Displaced ($/therm)*	$42.20	$45.31	$38.00	**$41.83**

*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
	Q1	Q1	Q1	
APPLICATIONS RECEIVED				
Application (Number)	0	1	0	1
Incentives ($)	0	$1,275	0	$1,275
Capacity (First Year Expected Energy Displaced in kWh)	0	3,036	0	3,036
UNDER REVIEW Incentive Claims				
Application (Number)	0	0	0	0
Incentives ($)	0	0	0	0
Capacity (First Year Expected Energy Displaced in kWh)	0	0	0	0

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

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

	CCSE	PG&E	SCE	Total
Average Project Cost per Multi-family/commercial Project ($)*	$58,850	$9,500	$7,630	**$25,327**
Average Project Cost per Unit of First Year Energy Displaced ($/kWh)*	$3.05	$3.13	$4.32	**$3.50**

*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)	16	5	9	**30**
Incentives ($)	$333,580	$363,480	$316,756	**$1,013,816**
Capacity (First Year Expected Energy Displaced in therms)	17,353	19,432	16,472	**53,257**
UNDER REVIEW Incentive Claims				
Application (Number)	17	19	57	**93**
Incentives ($)	$205,405	$437,598	$2,377,596	**$3,020,599**
Capacity (First Year Expected Energy Displaced in therms)	10,687	25,924	126,749	**163,360**

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 ($)*	$68,825	$93,237	$79,677	**$80,580**
Average Project Cost per Unit of First Year Energy Displaced ($/therm)*	$56.47	$51.50	$47.27	**$51.75**

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

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, 2014 through March 31, 2014..

Table 21 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 22 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 23 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	71.43%	90.48%	9.52%	21
PG&E	81.82%	100.00%	0%	11
SCE	0%	0%	0%	0
SCG	74.19%	96.67%	3.23%	31

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	100.00%	100.00%	0%	6
PG&E	100.00%	100.00%	0%	7
SCE	100.00%	100.00%	0%	2
SCG	100.00%	100.00%	0%	63
Inspection: Percentage of applications with inspection with processing time between Incentive: Application Review and Incentive: Approved as described.				
CCSE	33.33%	100.00%	0%	3
PG&E	0%	66.67%	33.33%	6
SCE	100.00%	100.00%	0%	1
SCG	62.50%	100.00%	0%	8
Percentage of applications with processing time between Incentive: Application Review and Incentive: Paid as described.				
CCSE	71.43%	71.43%	28.57%	7
PG&E	40.00%	73.33%	26.67%	15
SCE	100.00%	100.00%	0%	3
SCG	85.96%	96.49%	3.51%	57

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%	10
PG&E	100.00%	100.00%	0%	7
SCE	0%	0%	0%	0
SCG	100.00%	100.00%	0%	38
Inspection: Percentage of applications with inspection with processing time between Incentive: Application Review and Incentive: Approved as described.				
CCSE	45.45%	54.55%	45.45%	11
PG&E	28.57%	100.00%	0%	7
SCE	0%	0%	0%	0
SCG	68.18%	90.91%	9.09%	22
Percentage of applications with processing time between Incentive: Application Review and Incentive: Paid as described.				
CCSE	72.73%	100.00%	0%	11
PG&E	42.86%	92.86%	7.14%	14
SCE	0%	0%	0%	0
SCG	64.29%	92.86%	7.14%	56

5. Market Facilitation

5.1 Statewide Market Facilitation Plan for 2014

The 2014 Statewide Market Facilitation Plan was submitted to the CPUC for approval on October 1, 2013 and was approved on November 12, 2013. The PAs are currently evaluating 2014 strategic planned efforts/initiatives with Phelps Total Market (PTM) for implementation.

Paid Search Campaign – WHBTS.COM

The paid search campaign for the re-vamped waterheatedbythesun.com (WHBTS.com) landing page launched on March 3rd, 2014. The main objective of the "soft" launch was to gain insight on how customers would engage with the new website.

2014 Statewide Communication Messaging

The PA's agreed on a communication message for 2014, "Everything Changes". This creative highlights our Solar Water Heating technology in an everyday environment, establishing an emotional connection with our prospective customer base. Concept will be leveraged throughout different media channels, such as; TV, social media, digital, and mobile.

2014 Statewide Communication Media Plan

Currently, the PA's are evaluating the media plan/recommendation presented by Phelps regarding our 2014 Statewide Solar efforts. Media strategy includes Cable TV, Paid Search, Mobile, Digital and Direct Mail.

5.2 Other Activities

The M&O representatives provided an update during the CSI Public Forum on March 25, 2014, as well as provided marketing updates to Energy Division staff via conference calls on a regular basis during Q1.

5.3 Mandatory CSI-Thermal Workshops

Contractors and self-installers are required to attend a designated, no-cost CSI-Thermal Program training workshop. The PAs conduct training courses in their respective service territories. The workshops are publicized on each PA's website as well as the GoSolarCalifornia website[11]. As part

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

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 2014 and the number of attendees. As of March 31st, 2014, there are over 530 licensed eligible solar contractors that have signed up with the Program statewide.

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

	Q1 2013	
PA	Number of Workshops	Number of Attendees
CCSE	2	17
PG&E	2	40
SCE[12]	2	29
SCG[14]	2	17
Total	8	103

[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. Class scheduled in June 2013 was cancelled due to low enrollment.

5.4 PA-Specific Marketing Efforts

5.4.1 Southern California Gas Company

In an effort to increase adoption of SWH systems and increase the number of trained installers, SCG continued its collaboration with SCE and Alternative Energy Systems Consulting (AESC) to provide mandatory contractor and self-installer training courses. To ensure overlapping SCG and SCE service territories were covered by both utilities, training courses alternated every other month between SCE and SCG training facilities. SCG's course was offered at its Energy Resource Center in Downey, California. SCG hosted 2 workshops with 17 attendees during Q1 2014.

Trade Shows and Events

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

2/11 - 13/14	World Agricultural Expo	Tulare
2/21/14	Manufacturers Summit	Ontario
3/13/14	Apartment Association of Orange County Conference	Costa Mesa

Local Market Facilitation Plan

During Q1, SCG worked with Phelps Total Market (PTM) to begin the implementation of the 2014 Local Market Facilitation plan, which was submitted to the CPUC for approval by the October 1, 2013 deadline and approved on November 12, 2013, with a Single-Family Low-Income Addendum approved on October 31, 2013.

Solar Microsite

SCG worked with Phelps to produce a microsite for local solar marketing efforts. The microsite will be the online destination for customers to engage with SCG through 2014, in lieu of traditional workshops. The microsite will feature 8 informational videos covering relevant rebate information for all customer segments, the program's key content and link back to socalgas.com/solar.

CSD Effort – Low-Income Segment

SCG is working with Community Services and Development (CSD) to finalize its 2014 communication strategy to reach the low-income segment. The program incentive will be a no-cost Solar Water Heating system for income-eligible customers who have participated in the Energy

Savings Assistance Program. Marketing efforts initiated in 2013 with direct mail will be expanded to include other marketing channels, email and canvassing.

SoCalGas.com Solar Landing Page Re-Launch

The style, images and text seen by visitors to the solar landing page on socalgas.com underwent a refresh, with the goal of making the site more intuitive, informative and simplified. Phelps Total Market worked with SoCalGas web staff to implement the visual and technical enhancements required. The new look and feel of the landing page coincides with the redesign of WaterHeatedByTheSun.com and the upcoming local microsite launch.

5.4.2 California Center for Sustainable Energy

Training and Education

CCSE conducted the following SWH workshops in Q1 2014. A brief description of each workshop follows.

How to Become an Eligible Contractor in the CSI-Thermal Program	1/16/14
NST Solar Thermal Installation Training (5-day)	1/20/14 – 1/24/14
Skip's Tips	1/28/14
Solar Water Heating Basics for Homeowners	2/11/14
Skip's Tips	2/25/14
How to Become an Eligible Contractor in the CSI-Thermal Program	3/18/14
Solar Water Heating Basics for Homeowners	3/27/14

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.

Solar Water Heating Installation Training (5-day)

CCSE continued its partnership with National Solar Trainers (NST) by offering a five-day comprehensive training geared toward preparing participants to become solar thermal installers, designers, sales and marketing professionals or entrepreneurs.

Skip's Tips

Led by CCSE's solar water heating technical expert, Skip Fralick, this workshop covers advanced solar thermal topics and was reintroduced in September after a two-month

hiatus. The format of this workshop has been updated to include a spotlight on a different commercial segment each month such as car washes and industrial laundries.

Solar Water Heating Basics for Homeowners

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

Workshop Promotion and Follow-up

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

Paid Media

CCSE launched an array of paid and earned media marketing tactics during Q1 2014 to bolster awareness of SWH in the San Diego region and encourage homeowners to register for workshops.

- **Radio**
  - KPBS (1/27/14 – 4/14/14)
    - 15-second radio sponsorships
    - 32 total spots aired between 1/27 – 2/3
    - 42 total spots aired between 3/31 – 4/14
- **Digital**
  - KPBS.org
    - Run dates: 1/20/14 – 2/11/14
    - 250 x 300 digital banner execution
    - 160 x 600 home page skyscraper
    - Drove 245 unique visits to CCSE's SWH workshop registration page
  - Facebook News Feed Ads
    - Promoted Feb. 11 SWH Basics workshop
      - Run dates: 1/28/14 – 2/10/14
      - Reach: 20,453
      - Clicks: 439
      - CTR: 1.162%
    - Promoted March 27 SWH Basics workshop (Chula Vista)
      - Run dates: 3/25/14 – 3/27/14
      - Reach: 1,947
      - Clicks: 31
      - CTR: 1.443%
- **Outdoor**

- "Rotation Blitz" with CBS Outdoor (10/21/13 – 1/12/14)
    - Transit shelters (30), posters (18) and billboards (3) in select communities
    - Locations shifted over the course of campaign
    - "Soak up the sun and savings" messaging directed viewers to waterheatedbythesun.com

- **Newspaper/ Print**
    - San Diego Business Journal
        - "Take Charge of Your Energy and Save" – published Jan. 27 in "Sustainable San Diego"
        - Print ads
            - Collaborative ½ page print ads (1/27, 3/31)

    - Apartment Owners Association (AOA) Magazine (1/14, 2/14, 3/14)
    - San Diego County Apartment Association (SDCAA) "Rental Owner" magazine
        - "Soak up the sun and savings with Solar Water Heating" (3/14)
        - ½ page solar water heating ads
        - Three monthly insertions (1/14, 2/14, 3/14)

Events & Outreach

During Q1 2014, CCSE participated in the following events to help raise awareness of SWH and available CSI-Thermal rebates:

- San Diego County Apartment Association (SDCAA) Expo – planning for Q2 event
    - Developed a 10-unit case study poster containing rebate information and economic metrics including Payback and IRR
    - Created ½ page flyers advertising a May multifamily webinar that were distributed at the Expo
    - Create a retractable banner advertising attractive SWH value propositions, including energy bill savings percentage
    - Created a leaderboard (728x90) banner advertisement for the trade organization's e-newsletter promoting our involvement in the SDCAA Expo
        - Newsletter delivery open rate: 28.27%

Other Marketing Activities

In addition to the paid media tactics above, CCSE also leveraged the following in-house communication platforms during Q1 2014 to help promote SWH and available workshops.

- *Roundup Newsletter*: CCSE publishes a bi-weekly e-mail calendar called the Roundup that features all CCSE workshops offered in the community. This newsletter grew to over

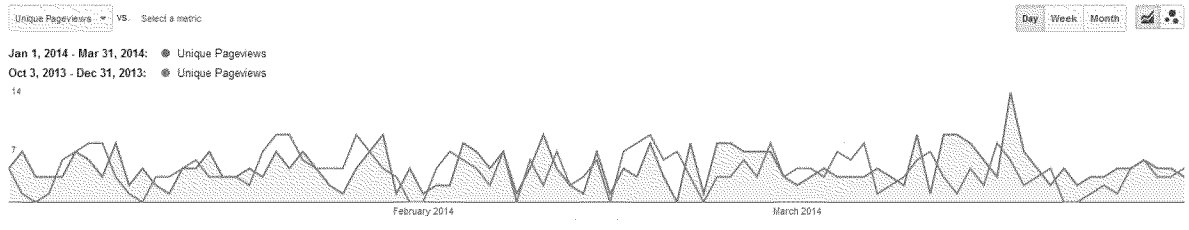
15,000 subscribers during Q1 2014 and continues to be an effective medium for promoting CSI-Thermal workshops.

- *Go Solar, California! Newsletter*: CCSE leads the production of the Go Solar, California Newsletter and oversees its quarterly distribution to approximately 10,500 subscribers. One article pertaining to the CSI-Thermal Program was published during Q1 2014.
    - Commercial Pool Advances (January – March Newsletter): This article announced the finalized Commercial Pool Heating Incentive Calculator as well as CPUC approval of additional rebates for solar pool heating systems at commercial and government facilities, schools, multifamily housing and locations operated by nonprofit organizations.
- *CCSE's online calendar*: Features all of CCSE's events and workshops and is one of the most active pages on CCSE's website.
- *Facebook, Twitter and LinkedIn*: CCSE has an active presence on Facebook, Twitter and LinkedIn. These social media channels connect CCSE to a green-minded audience and provide a fruitful platform for engaging with the community as well as sharing program updates, promoting workshops and further spreading awareness of SWH. Page views to CCSE events pages as a result of increased outreach increased by 155% from Q4 2013 to Q1 2014.

Web Development

CCSE's website devotes several pages to CSI-Thermal Program-specific information at www.energycenter.org/swh. This landing page is updated frequently to ensure the CSI-Thermal Program pages remain an engaging, accurate and up-to-date resource for local homeowners and businesses who want to learn more about SWH and available rebates, and unique page views increased by 14.75% between Q4 2013 and Q1 2014.

CSI-Thermal Program Page



5.4.3 Pacific Gas and Electric Company (To be updated)

Local Targeting Analysis

In first quarter of 2014, PG&E continued its targeting efforts to identify customers with a higher potential to adopt solar water heating in order to increase market penetration. PG&E conducted some additional analysis on non-residential customers, specifically high water users or high gas users (from non-heating uses) throughout PG&E's service territory. This segmentation would help support targeted marketing effort to zero-in on a smaller, more qualified pool of candidates.

The following best prospects are detailed below based on the analysis:

- Fruit/Veg processors
- Wineries
- Health Care
- Meat/Poultry Processors
- Laundromats
- Hotels
- Dairies
- Food/Beverage Processors
- Prisons
- Restaurants
- Car Washes
- Schools

PG&E will educate our Reps in the field about solar water heating, who will work with their customers that fall into the above categories. In this way we can concentrate our marketing on customers we know have load, and with whom we have relationships and can discuss options.

CSI-Thermal Workshops

As a core part of PG&E's ongoing efforts, PG&E continues to offer monthly CSI-Thermal Program Workshops for contractors and self-installers throughout the service territory. The workshops are vital in conveying program requirements and ultimately help ensure contractors are better prepared to submit CSI-Thermal Program paperwork. All qualifying technologies are covered, as

well as some that do not receive incentives, and contractors are instructed on how to use the CSI Thermal database to submit project paperwork and check status. This workshop is required for anyone looking to become an eligible installer within the CSI-Thermal Program.

Date	Location	No. of Attendees
Feb. 6, 2014	Pacific Energy Center, SF	30
March 27, 2014	Pacific Energy Center, SF	10

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

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

PG&E conducted the following SWH courses in Q1 2014:

Contractor and Self Installer Workshop	2/6/2014	San Francisco
Solar Water Heating Basics; 51 students	2/27/2014	San Francisco
Solar Water Heating Basics; 43 students	3/4/2014	San Jose
Solar Cooling Class; 21 students	3/19/2013	San Francisco
Contractor and Self Installer Workshop	3/27/2013	San Francisco

Marketing Events Showcasing Solar Water Heating and the CSI-Thermal Program

North Valley Agriculture Workshop	1/15/2014	Chico Farm Pavilion, Chico CA
World Ag Expo	2/10-2/13/14	Tulare, CA
California League of Food Processors	2/19/2014	Sacramento, CA

All three of these events were targeted towards PG&E's large community of farming customers. At each workshop or event, we gave presentations to hundreds of people, spoke at our booth with hundreds (perhaps thousands at the Ag Expo), and discussed how solar water heating can be a benefit on the farm.

CSD Partnership

As discussed in the Q4 Progress Report, the California Department of Community Services and Development (CSD) and selected statewide network of weatherization agencies have developed a pilot to install 1,000 SWH systems in qualified households. CSD is partnering with PG&E to identify and target eligible ESA customers to participate in the pilot within certain geographical locations. PG&E has conducted outreach on behalf of this pilot to support enrollment in the CSI Thermal Program. Letters have been sent to inform low income customers of their eligibility to participate and encourage them to call CSD to be connected with a contractor.

To date, PG&E made payment on the FIRST low income residential solar thermal project in the State, as part of the CSI-Thermal Program! We are proud of our efforts yet recognize that were it not for the CSD Pilot no low income residential solar thermal projects will be built. As of this report writing, PG&E has paid on 5 low income residential projects, with 16 more in application stage.

Earned Media

PG&E's own media outlet, Currents, featured an article on solar water heating in its NEXT100 column. The article highlighted the progress of the program to date. It also highlighted the expansion of the program, specifically the new end uses and commercial pool heating for which incentives were introduced in January. A copy of the article can be viewed at http://www.pgecurrents.com/2014/01/28/pge-offering-new-rebates-for-solar-water-heating/

PG&E Business Newsletter – Solar Water Heating Featured

Each month PG&E releases its Energy Advisor for Business newsletter targeted towards small and medium business customers to provide integrated and relevant energy management information and solutions. The February edition included an article on solar water heating incentives for business customers along with information on other energy efficiency program, rates information and more. It was sent to approximately 65,000 customers and received an open rate of about 25%.

2014 Campaign

PG&E has been in the strategic planning phase for 2014 marketing and outreach efforts. In-market dates are slated for May/June 2014.

4.1.1 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 canceled the February class due to low enrollment.

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 3 HSC Webinars with a total of 36 attendees in Q1 2014.

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 3 Solar Connection Events with 104 attendees in Q1 2014.

CSI Commercial Solar Workshop and Webinars — These workshops and webinars 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 Q1 2014, SCE held 4 Commercial Solar Workshops at its Energy Education Center (EEC) in Irwindale and 1 in the City of Irvine with a total of 47 attendees. There were 6 webinars with 26 attendees.

Customer Outreach

SCE participates in conferences, tradeshows and community-based events as a means to further educate customers about the CSI-Thermal Program and provide continuing program exposure and increase customer awareness. In many cases, SCE leverages the M&O opportunities provided by the CSI general market program to also promote the CSI Thermal Program. SCE distributed program fact sheets, bid comparison forms and other related information at the following events:

- VerdeXchange, Los Angeles, January 26
- Black History Celebration, SCE Energy Edu. Center, Irwindale, February 1
- Solar Power Gen, San Diego, February 4 thru February 5
- World Ag Expo, Tulare, February 13 thru February 15
- Income Property Management Expo, Pasadena, March 25

Local Market Facilitation Plan

SCE's local market facilitation efforts leveraged the statewide efforts and focused on potentially high-reward geographic and market segments in SCE's service territory, incorporating a variety of media while using pre-existing creative (with minor SCE-specific adjustments) to help limit unnecessary expenditures. During Q1 local marketing efforts were put on hold and will resume in Q2 of 2014.

SCE Website

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

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

6. Conclusions

Through Q1 2014, the CSI Thermal Program has demonstrated a commitment towards improvement and meeting the complex needs of ratepayers, customers, industry and the marketplace. The PA's continue to advance the tools of the Program, implementing changes when appropriate and when there are scientific or market-based reasons to do so. The aforementioned one-month postponement of the Pools Program is an example where the PA's and engineers took an in depth look at the tools we developed to be sure we were wisely managing ratepayer funds. The PA's have had calls and meetings with Industry and CALSEIA in Q1 2014 (and Q2 2014 as of this writing) and are developing stronger relationships and greater collaboration for the benefit of the market and the Program. Lastly, as mentioned in the Marketing sections above, new and innovative marketing strategies are being deployed which we anticipate to invigorate interest in solar thermal and have a positive impact on program adoption. Q2 has already started off with signs of improvement and we look to the rest of 2014 to be a good year.