

California Solar Initiative Thermal Program

Quarterly Progress Report

(July 1 – September 30, 2014)

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1. Executive Summary

1.1. Introduction

Southern California Edison (SCE), on behalf of the California Solar Initiative (CSI) Thermal (CSI-Thermal) Program Administrators (PAs),¹ submits this Third Quarter (Q3) 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 January 1, 2010 through September 30, 2014. 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

As we proceeded into the third quarter of 2014, the PAs and engineers finalized their discussions addressing questions and issues regarding the new solar pool heating system subprogram. The industry, including the California Solar Energy Industries Association (CALSEIA) and other individuals, provided valuable input in an effort to prepare a Petition to Modify (PTM) to further enhance the program.

The CSI-Thermal PAs (i.e., SoCalGas, PG&E, SCE, and CSE) jointly with CALSEIA filed a PTM on July 23, 2014, requesting modification of two Commission decisions in the Distributed Generation (DG) OIR, R.12-11-005. This PTM requests that the Commission:

- Increase natural gas multifamily/commercial Step 1 incentives to \$20.19 per therm for the general market subprogram and \$24.89 for the low-income subprogram
- Increase natural gas single-family Step 1 incentives to \$29.85 per therm for the general market subprogram and \$36.90 for the low-income subprogram
- Adjust the allocations between natural gas subprogram budgets
- Increase the natural gas multifamily/commercial incentive cap per system and site to \$800,000
- Cap the incentives for natural gas pool heating systems at 50% of system cost
- Allow the PAs to request further program changes through advice filings.

Two Parties filed Responses in support of the PTM. The Office of Ratepayer Advocates (ORA) generally supports the relief requested in the PTM, including the request for an expeditious

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

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

decision in order to maximize the impact of ratepayer funded incentives. Skyline Innovations (now known as Nextility), who develops and finances Solar Water Heating (SWH) systems and participates in the CSI-Thermal Program in all three service territories focusing on low-income multifamily buildings in California, also fully supports all the recommendations detailed in the joint PTM.

Additionally, on August 20, 2014, CSE, on behalf of the CSI-Thermal PAs, filed a Tier 2 Advice Letter (AL) to propose a decrease in incentive rates for solar pool heating systems in compliance with Assembly Bill 2249 and Decision 13-08-004, as well as to propose other amendments to the CSI-Thermal Program Handbook. The CSI-Thermal PAs have found that the current \$7 per therm rate is overly generous and offsets a higher than anticipated portion of the installation costs. Lowering the incentive rates (to \$3-\$5 per therm) will meet the needs of the majority of the solar water heating community and will continue to promote and encourage the installation of solar pool heating systems. Also included in the AL were proposed revisions to the CSI-Thermal Program Handbook to further simplify the application submittal process and clarify various sections, such as rebate levels and installation requirements.

On September 9, 2014, California Solar Thermal, Inc. (CST) filed a protest to the AL on the following grounds:

- 1) Requested to maintain current rebate levels for solar pool systems;
- 2) Requested to allow recirculation freeze protection for solar pool systems;
- 3) Requested to remove language requiring that all solar thermal systems with unglazed collectors have proper expansion joints or loops on collector headers and footers and all supply and return piping;
- 4) Requested to alter the required status of an application to not be affected by a calculator change; and
- 5) Requested to remove the requirement that applicants provide photos of all solar pool systems.

On September 16, 2014, the PAs filed a Reply to the Protest. The PAs believe the Protest is without merit and recommended that the Commission reject it and approve the AL as filed.

Lastly, on August 28, 2014, CSE notified the Commission that enough multifamily/commercial applications had been approved to reserve the Step 1 budget and subsequently that all multifamily/commercial subprograms have moved to Step 2.

2. Introduction

2.1. Program Background

In January 2007, the CPUC launched the CSI program, a \$2.16 billion ratepayer-funded incentive initiative 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; however, the CPUC deferred eligibility for SWH technologies under the CSI until a pilot program for SWH technologies was conducted in the service territory of SDG&E. Starting in July 2007, CSE 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 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 systems and other solar thermal technologies, in the service territories of California's major investor-owned utilities. The CPUC established the incentive structure, program administration details, and other key CSI-Thermal Program rules. The CPUC designated PG&E, SCG, SCE, and CSE (for SDG&E's service territory) as the PAs for the CSI-Thermal Program. The PAs launched the single-family residential program in May 2010 and the commercial/multifamily 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 multifamily/commercial mainstream programs. The new rates were incorporated into the program on October 4, 2012, and were applied to projects that were in application review as of July 4, 2012.

On March 6, 2013, the CPUC issued D.13-02-018, effective February 28, 2013. This Decision modified the CSI-Thermal Program to provide incentives to process heat applications, solar cooling technologies, space heating technologies and systems that combine multiple applications. In addition, this Decision modified the way rebates are paid to certain systems under the program by

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

creating a performance-based incentive system that will pay rebates based on actual metered energy delivered to the facility.

On August 19, 2013, the CPUC issued D.13-08-004, effective August 15, 2013. The Decision modified 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 solar pool heating program into the existing commercial/multifamily incentive budget.

2.2. Program Goals

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

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

2.3. Program Budget

The total incentive budget (excluding administrative, marketing, and measurement and evaluation budget allocations) for the CSI-Thermal Program is approximately \$280.8 million over the life of the program. Of this total, \$180 million is allocated to natural gas-displacing SWH systems, as authorized by AB 1470, and up to \$100.8 million may be used to fund electric-displacing systems, subject to overall CSI budget availability as authorized by Senate Bill (SB) 1. There is also an additional \$25 million incentive budget dedicated to low-income single-family and multifamily 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 multifamily/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 multifamily/commercial SWH systems. Funds may be moved from the multifamily/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 natural gas-displacing SWH systems. Table 2 presents the incentive allocation percentage and budget allocated to each PA for 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) 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 CSE, PG&E, and SCG in the same proportions as the total CSI-Thermal natural gas-displacing program presented in Table 1. Single-family and multifamily 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
CSE	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
CSE	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
CSE	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/Multifamily	\$14.53	\$500,000
	Solar pools	\$7.00	\$500,000
2	Single-Family	\$13.11	\$1,919
	Commercial/Multifamily	\$9.88	\$500,000
	Solar pools	\$7.00	\$500,000
3	Single-Family	\$7.69	\$1,125
	Commercial/Multifamily	\$6.55	\$500,000
	Solar pools	\$5.00	\$500,000
4	Single-Family	\$3.23	\$474
	Commercial/Multifamily	\$3.13	\$500,000
	Solar pools	\$3.00	\$500,000

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

Table 5: Electric/Propane-Displacing System Incentive Steps

Effective July 4, 2012

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

Incentive step changes move independently in each program territory⁶ and for each customer class. Incentives are paid on a first come, first served basis. The most current information on incentive step status per customer class is posted on www.csithermal.com/tracker.

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

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

Step Level	Single-Family Low-Income Incentive per therm displaced	Incentive Cap for Single-Family Low-Income Projects	Multifamily Low-Income Incentive per therm displaced	Incentive Cap for Multifamily 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 multifamily/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.

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

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

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

- For single-family projects, all Domestic Hot Water (DHW) end-uses are eligible.⁹
- For multifamily/commercial projects, eligible end uses include domestic hot water, commercial process heat, space heating, absorption chilling, pool heating applications, and combination systems.¹⁰ Rebates are available for qualifying natural gas-, electric-, and propane- displacing systems that were installed within 24 months after the date on the final signed-off permit.
- 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 September 2014, CSI-Thermal Program expenditures totaled \$49,625,092. Table 7 illustrates the detailed expenditures by PA followed by a breakdown of expenses specific to the natural gas and electric/propane-displacing programs for the reporting period as represented in Table 8 and Table 9.

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

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

¹⁰ Examples of eligible DHW end uses 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 September 30, 2014					
Expenditure Type	CSE	SCE	PGE	SCG	Total
Administration	\$1,657,191	\$796,906	\$3,860,028	\$2,622,532	\$8,936,657
Market Facilitation	\$1,616,498	\$785,946	\$5,631,066	\$7,110,996*	\$15,144,506
Measurement & Evaluation	\$12,604	1,427	\$8,074	\$0	\$22,105
Incentives Paid	\$4,655,626	\$62,997	\$9,781,620	\$11,021,581	\$25,521,824
Total	\$7,941,919	\$1,647,276	\$19,280,788	\$20,755,109	\$49,625,092

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

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

Natural Gas				
July 1 – September 30, 2014				
Expenditure Type	CSE	PG&E	SCG	Total
Administration	\$56,725	\$206,085	\$160,498	\$423,308
Market Facilitation	\$95,263	\$832,172	\$1,529,259*	\$2,456,694
Measurement & Evaluation	\$1,577	\$3,261	\$0	\$4,838
Incentives Paid	\$60,183	\$839,467	\$1,130,854	\$2,030,504
Total	\$213,748	\$1,880,985	\$2,820,611	\$4,915,344

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

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

Electric/Propane				
July 1 – September 30, 2014				
Expenditure Type	CSE	PG&E	SCE	Total
Administration	\$11,401	\$373	\$38,862	\$50,636
Market Facilitation	\$23,815	\$35,099	\$38,981	\$97,895
Measurement & Evaluation	\$394	\$257	\$1,427	\$2,078
Incentives Paid	\$0	\$0	\$0	\$0
Total	\$35,610	\$35,729	\$79,270	\$150,609

4. Program Progress

The CSI-Thermal Program began accepting applications for single-family systems and multifamily/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 multifamily incentive levels effective July 4, 2012. On August 15, 2013 the CPUC approved current incentive levels for solar pool heating systems. Tables 10, 12, 14, 16, 18 and 20 present the quantities of applications received by each PA in Q3 2014, as well as the corresponding incentives and energy savings for those applications. Tables 11, 13, 15, 17, 19 and 21 show the average costs of systems for completed projects by PA and customer class since program inception.

In CSE territory, there has been some progress in the multifamily/commercial sector. In Q3 2014, CSE received enough multifamily/commercial applications to reserve the Step 1 budget and subsequently all multifamily/commercial subprograms moved to Step 2.

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

	CSE	PG&E	SCG	Total
	Q3	Q3	Q3	
APPLICATIONS RECEIVED				
Application (Number)	4	28	61	93
Incentives (\$)	\$7,003	\$54,903	\$89,283	\$151,189
Capacity (First Year Expected Energy Displaced in therms)	419	3,237	5,247	8,903

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

	CSE	PG&E	SCG	Overall Average
Average Project Cost per Single-Family Project (\$)*	\$7,359	\$5,489**	\$ 9,951	7,600
Average Project Cost per Unit of First Year Energy Displaced (\$/therm)*	\$67.31	\$46.62**	\$109.95	\$74.63

*Since program inception

**Cost/project and \$/therms are very low due to Pilot project by State CSD Dept which pays majority of project costs.

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

	CSE*	PG&E*	SCE*	Total
	Q3	Q3	Q3	
APPLICATIONS RECEIVED				
Applications (Number)	N/A	N/A	N/A	N/A
Incentives (\$)	N/A	N/A	N/A	N/A
Capacity (First Year Expected Energy Displaced in kWh)	N/A	N/A	N/A	N/A

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

* The budget is currently exhausted for single-family residential electric- and propane-displacing systems in CSE, PG&E, and SCE territories. Waitlists have been closed in all territories.

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

	CSE	PG&E	SCE	Overall Average
Average Project Cost per Single-Family Project (\$)*	\$7,376	\$8,213	\$7,979	\$7,856
Average Project Cost per Unit of First Year Energy Displaced (\$/kWh)*	\$2.64	\$2.95	\$2.48	\$2.69

*Since program inception

Table 14: Summary Data: Multifamily/Commercial Non-Pool (Natural Gas)

	CSE	PG&E	SCG	Total
	Q3	Q3	Q3	
APPLICATIONS RECEIVED				
Application (Number)	4	7	8	19
Incentives (\$)	\$106,360	\$239,551	\$322,724	\$668,635
Capacity (First Year Expected Energy Displaced in therms)	7,320	16,976	22,212	46,508
UNDER REVIEW Incentive Claims				
Application (Number)	1	3	11	15
Incentives (\$)	\$1,991	\$83,528	\$258,936	\$344,455
Capacity (First Year Expected Energy Displaced in therms)	137	6,626	17,852	24,615

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 Multifamily/Commercial Project Non-Pool (Natural Gas)

	CSE	PG&E	SCG	Total
Average Project Cost per Multifamily/commercial Project (\$)*	\$156,641	\$85,467	\$66,030	\$102,713
Average Project Cost per Unit of First Year Energy Displaced (\$/therm)*	\$42.81	\$45.26	\$37.00	\$41.69

*Average Project Cost per Multifamily/commercial Project for all completed projects since program inception

Table 16: Summary Data: Multifamily/Commercial Solar Pool Systems (Natural Gas)

	CSE	PG&E	SCG	Total
	Q3	Q3	Q3	
APPLICATIONS RECEIVED				
Application (Number)	26	12	199	237
Incentives (\$)	\$524,905	\$249,589	\$3,053,833	\$3,828,327
Capacity (First Year Expected Energy Displaced in therms)	76,002	35,832	440,116	551,950
UNDER REVIEW Incentive Claims				
Application (Number)	8	1	32	41
Incentives (\$)	\$131,873	\$7,153	\$498,682	\$637,708
Capacity (First Year Expected Energy Displaced in therms)	18,839	1,027	74,048	93,914

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 Multifamily/Commercial Solar Pool Project (Natural Gas)

	CSE	PG&E	SCG	Total
Average Project Cost per Multifamily/commercial Project (\$)*	\$41,380	\$43,993	\$19,530	\$34,968
Average Project Cost per Unit of First Year Energy Displaced (\$/therm)*	\$8.86	\$18.01	\$9.41	\$12.09

*Average Project Cost per Multifamily/commercial Project for all completed projects since program inception

Table 18: Summary Data: Multifamily/Commercial (Electric/Propane)

	CSE	PG&E	SCE	Total
	Q3	Q3	Q3	
APPLICATIONS RECEIVED				
Application (Number)	2	0	0	2
Incentives (\$)	\$3,784	\$0	\$0	\$3,784
Capacity (First Year Expected Energy Displaced in kWh)	13,046	0	0	13,046

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 19: Average Cost per Multifamily/Commercial Project (Electric/Propane)

	CSE	PG&E	SCE	Total
Average Project Cost per Multifamily/commercial Project (\$)*	\$6,440	\$34,146	\$7,630	\$16,072
Average Project Cost per Unit of First Year Energy Displaced (\$/kWh)*	\$3.05	\$2.28	\$4.32	\$3.22

*Average Project Cost per Multifamily/commercial Project for all completed projects since program inception

Table 20: Summary Data: Multifamily Low-Income (Natural Gas)

	CSE*	PG&E	SCG	Total
	Q3	Q3	Q3	
APPLICATIONS RECEIVED				
Application (Number)	6	11	4	21
Incentives (\$)	\$112,100	\$392,257	\$234,799	\$739,156
Capacity (First Year Expected Energy Displaced in therms)	9,886	21,740	12,319	43,945
UNDER REVIEW Incentive Claims				
Application (Number)	0	6	14	20
Incentives (\$)	\$0	\$297,940	\$592,471	\$890,411
Capacity (First Year Expected Energy Displaced in therms)	0	15,561	31,839	47,400

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

*CSE has received enough low-income applications to reserve all rebate funds and has opened a waitlist. The applications noted as received "RR Application Review" have been waitlisted.

Table 21: Average Cost per Multifamily Low-Income (Natural Gas)

	CSE	PG&E	SCG	Total
Average Project Cost per Multifamily/commercial Project (\$)*	\$65,167	\$72,112	\$71,346	\$69,542
Average Project Cost per Unit of First Year Energy Displaced (\$/therm)*	\$60.62	\$54.07	\$45.38	\$53.36

*Average Project Cost per Multifamily/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 multifamily/commercial applications to ensure that projects move forward as quickly as possible. Tables 22 through 24 reflect the reporting period from July 1 through September 30, 2014.

Table 22 shows the most recent application processing timeframes (between the "Reservation Application Review" and "Reservation Application Approved" stages) for 2- or 3-step multifamily/commercial project applications. This metric represents the amount of time it took to reserve incentives for a multifamily/commercial project.

Table 23 shows the time from Application Review to Incentive Approval for 1-step – Single-Family Residential project applications. The time measured in the processing time tables includes both PA application processing time and the time taken by the host customer to respond to requests for more information or application corrections.

Table 24 shows the Time from Application to Incentive Approval for 2- and 3-step-multifamily/commercial project applications.

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

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

Table 22: Multifamily/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
	Q3	Q3	Q3	
Multifamily-Commercial				
CSE	75.00%	100.00%	0.00%	20
PG&E	51.85%	96.30%	3.70%	27
SCE	N/A	N/A	N/A	0
SCG	70.37%	94.44%	5.56%	54

Table 23: 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
	Q3	Q3	Q3	
No Inspection: Percentage of applications without inspection with processing time between Incentive: Application Review and Incentive: Approved as described.				
CSE	100.00%	100.00%	0.00%	1
PG&E	59.09%	100.00%	0.00%	22
SCE	0.00%	100.00%	0.00%	1
SCG	96.08%	100.00%	0.00%	51
Inspection: Percentage of applications with inspection with processing time between Incentive: Application Review and Incentive: Approved as described.				
CSE	0.00%	100.00%	0.00%	1
PG&E	36.36%	63.64%	36.36%	11
SCE	N/A	N/A	N/A	0
SCG	45.83%	54.17%	45.83%	24
Percentage of applications with processing time between Incentive: Application Review and Incentive: Paid as described.				
CSE	33.33%	66.67%	33.33%	3
PG&E	16.00%	76.00%	24.00%	25
SCE	0.00%	100.00%	0.00%	1
SCG	79.49%	84.62%	15.38%	78

Table 24: Processing Time from Application Review to Incentive Approval (2-and 3-Step - Commercial or Multifamily 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.				
CSE	100.00%	100.00%	0.00%	12
PG&E	50.00%	100.00%	0.00%	2
SCE	N/A	N/A	N/A	0
SCG	100.00%	100.00%	0.00%	25
Inspection: Percentage of applications with inspection with processing time between Incentive: Application Review and Incentive: Approved as described.				
CSE	100.00%	100.00%	0.00%	3
PG&E	33.33%	100.00%	0.00%	3
SCE	N/A	N/A	N/A	0
SCG	38.89%	88.89%	11.11%	18
Percentage of applications with processing time between Incentive: Application Review and Incentive: Paid as described.				
CSE	16.00%	80.00%	20.00%	25
PG&E	20.00%	60.00%	40.00%	5
SCE	N/A	N/A	N/A	0
SCG	69.77%	90.70%	9.30%	43

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.

[Paid Search Campaign – WHBTS.COM](#)

The paid search campaign driving traffic to waterheatedbythesun.com (WHBTS.com) launched on March 3, 2014. To date, the conversion rate of customers visiting the landing page and converting to one of the respective utility websites is 24.77%.

TV Flight Extension

The M&O administrators approved a second TV flight of our statewide creative, “Everything Changes”, within the market. The flight launched on September 2, 2014, and ran for six weeks. This TV flight will work as the main “anchor” in driving awareness among our customer segment and provide additional support to our other efforts: social media, mobile, & digital.

Statewide Toolkit

On September 5, 2014, the PAs launched the statewide toolkit. This toolkit will help each administrator leverage the established statewide campaign in their respective local markets, by providing a resource center where each administrator can find downloadable assets such as: public relations materials, social media assets, collateral and advertising assets.

2015 Statewide Decision

Based on the Guidance Memo and recommendation by Energy Division staff, on August 21, 2014, the PAs jointly decided to not commit funds toward a collaborative statewide media plan for 2015 in order to provide each PA the opportunity to concentrate on local marketing efforts. This shift in approach will enable each individual PA to leverage the foundation of the statewide campaign, including creative assets. In addition, it will enable the PAs to take a more concentrated and targeted approach to increasing program awareness and encouraging adoption of SWH on a local level.

5.2 Other Activities

The M&O representatives provided an update during the CSI Public Forum on September 12, 2014, as well as provided marketing updates to Energy Division staff via conference calls on regular basis during Q3.

5.3 Mandatory CSI-Thermal Program 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 program territories. The workshops are publicized on each PA’s website as well as the GoSolarCalifornia website.¹¹ As part of the statewide effort, the PAs coordinated this activity and developed a one-day Contractor and Self-installer curriculum for the training workshop.

¹¹ <http://gosolarcalifornia.org/>.

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 25 shows the number of workshops held in each service territory during Q3 2014 and the number of attendees. As of September 30, 2014, there are 560 licensed eligible solar contractors statewide.

Table 25: Mandatory CSI-Thermal Workshops Held by Program Administrator

	Q3 2014	
PA	Number of Workshops	Number of Attendees
CSE	2	13
PG&E	2	20
SCE ¹²	0	0
SCG ¹⁴	2	16
Total	6	49

5.4 PA-Specific Marketing Efforts

5.4.1 Southern California Gas Company

To increase adoption of SWH systems and expand the number of trained installers, SCG continued providing mandatory contractor and self-installer training courses in collaboration with SCE and Alternative Energy Systems Consulting (AESC). To ensure coverage by both SCG and SCE in overlapping service territories, training courses alternated every other month between facilities of the two utilities. SCG’s course was offered at its Energy Resource Center in Downey, California. SCG hosted two workshops with 16 attendees during Q3 2014.

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. SCE cancelled their scheduled classes in Q3 2014 due to lack of enrollment.

Trade Shows and Events

SCG promoted the CSI-Thermal Program as an exhibitor at the following shows and events during Q3. At each venue, statewide brochures and promotional items were distributed.

Solar co-sponsored with other SCG Programs

7/17/14	Xerox Green Festival	Santa Ana
7/20/14	Living Green Expo & Concert	South Pasadena
8/19/14	EE SCG Fair	Downey
8/20/14	Pershing Square Farmers Market	Downtown LA
8/22-24/14	Stellar Home and Garden Show	Anaheim

Local Market Facilitation Plan

During Q3, SCG marketed the SWH program across the company service territory through TV, radio, print, experiential/solar mobile unit, digital, mobile and social media channels. SCG also participated in a *Sunset Magazine* sponsorship.

The local communication plan is scheduled to be in-market through November 2014.

Solar Microsite

SCG is currently working with Phelps to re-vamp the overall look and feel of our local solar microsite, solarwaterheating101.com. Our goals are to better align the SCG microsite with current communication messaging and to increase customer engagement. The microsite works as a digital workshop where consumers can find information such as the different types of systems and rebates. It is the online destination for consumers to engage with SCG through 2014. During Q3, the microsite received 30,513 visits.

Solar Mobile Unit Event Participation

SCG is providing consumers an opportunity to experience SWH firsthand. Our walk-in/interactive mobile unit was showcased during Q3 at the events listed below within our service territory. Consumers can interact with our solar street team, see and feel the actual components that make up SWH systems and learn about the overall program.

7/5/14	The Commons	Calabasas
7/12/14	Paseo Colorado	Pasadena
7/13/14	Irvine Spectrum	Irvine
7/18-20/14	OC Fair	Newport Beach

8/2-3-14	Ventura Fair	Ventura
8/9-10/14	Jazz Festival	Long Beach
8/16/14	The Promenade	Westlake
8/17/14	Irvine Spectrum	Irvine
8/29-31/14	Orange International Street Fair	Orange

CSD Effort – Low-Income Segment

In addition to the communication channels already established with our CSD eligible customer base, direct mail and email, SCG launched a door-to-door canvassing effort in Orange County. This face-to-face interaction provides customers the opportunity to ask questions they may have about the CSD low-income SWH program. It also verifies the authenticity of the program with our targeted customers. We launched the four-week canvassing effort on August 12, 2014, and targeted 1,468 customers.

5.4.2 Center for Sustainable Energy

Training and Education

CSE conducted the following SWH workshops in Q3 2014. A brief description of each workshop follows.

Workshop Title	Date	Attendees
Solar Water Heating Basics for Homeowners	8/7/14	23
How to Become an Eligible Contractor in the CSI-Thermal Program	7/15/14	5
Skip’s Tips	8/27/14	13
How to Become an Eligible Contractor in the CSI-Thermal Program	9/17/14	8

Solar Water Heating Basics for Homeowners

This workshop is for residents seeking to learn more about the advantages and potential benefits of SWH technology.

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

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

Skip’s Tips

Led by CSE's SWH technical expert, Skip Fralick, this workshop covers advanced solar thermal topics. The workshop format usually includes a focus on a particular industry segment and/or thermal technology each month.

Workshop Promotion

CSE relied on the targeting capabilities and cost-effectiveness of digital direct mail communications to promote workshops and disseminate important news.

By sending promotional emails and customized e-mail reminders, CSE has been able to entice more people to register for SWH workshops and is also improving the conversion rate between those who register and actual workshop attendees. CSE optimized email templates in Q3 to keep workshop attendees engaged with solar water heating and facilitate them taking the next step.

Marketing Activities by Audience Segment

i. Commercial

1. Content marketing

- a. San Diego Business Journal (SDBJ)
 - i. Contributed a featured story highlighting a local hotel's recent SWH installation. The article appeared within SDBJ's August "Sustainable San Diego" supplement – 8/11/14
 - ii. Ran half-page SWH ad targeted to commercial decision makers – 8/11/14

2. Targeted industry outreach

- a. Breweries
 - i. San Diego Brewer's Guild Membership meeting – 8/18/14
 1. CSI-Thermal Program staffed a booth at the event
 2. CSE's Program Manager, Sarah Smith, presented to Guild members on the benefits of SWH and articulated the value proposition for breweries.
 - ii. Whitepaper development in partnership with WhiteLabs – a world leader in fermentation sciences for the brewing and winemaking industries.

3. Commercial/ industrial lead generation

- a. CSI-Thermal Program participated in the development of the Clean Energy Assessment tool; a free online assessment that assists commercial property owners/managers in discovering clean energy technologies that are most favorable for their business operations.
- b. Promoted Clean Energy Assessment via full-page print ad in San Diego Business Journal – 9/1/14
 - i. Developed ad in collaboration with CSE's Self-Generation Incentive Program team

4. Collateral

- a. CSE customized commercial brochures intended for local use in 2015

ii. Multifamily

1. Advertising

- a. San Diego County Apartment Association (SDCAA)
 - i. Ran half-page ads in SDCAA's monthly Rental Owner magazine distributed to over 2,000 multifamily property owners in San Diego
 - ii. Digital banner ads in SDCAA's bi-weekly email newsletter

2. Multifamily landing page optimization

- a. Planning and development for optimized multifamily web experience on CSE's CSI-Thermal Program website
 - i. Web updates to include new web structure, navigation and content tailored specifically for the multifamily audience

3. Case studies

- a. Developed a second multifamily case study on a 116-unit property containing rebate information and economic metrics including Payback and IRR
- b. Case study featured on CSE's CSI-Thermal Program multifamily landing page

4. Collateral

- a. CSE customized multifamily brochures intended for local use in 2015

iii. Residential

1. Solar Water Heating Basics "Teaser" Video

- a. Produced a five-minute CSI-Thermal Program "teaser" video that educates homeowners about SWH technology and available rebates
- b. Viewable on CSE's website and YouTube channel

2. Advertising

- a. KPBS digital banner ads (7/28/14 – 8/7/14)
 - i. Developed digital box, mobile and skyscraper ads to promote 8/7/14 Solar Water Heating Basics workshop
- b. Secured print advertising contract with Dream Homes Magazine for Q4 2014 advertising
 - i. Developed full page residential ad leveraging statewide messaging
- c. Secured advertising contract with San Diego Home & Garden Magazine

3. Collateral

- a. CSE customized residential brochures intended for local use in 2015

Other Marketing Activities

In addition to the paid media tactics above, CSE also leveraged the following in-house communication platforms during Q3 2014 to help promote SWH and available workshops:

- *Roundup Newsletter*: CSE publishes a bi-weekly e-mail calendar that features all CSE-hosted workshops offered in California. This newsletter is sent to over 14,500 subscribers and continues to be an effective medium for promoting CSI-Thermal Program workshops.
- *CSE's online calendar*: Features all of CSE's events and workshops and is one of the most active pages on CSE's website.
- *Facebook, Twitter and LinkedIn*: CSE has an active presence on Facebook, Twitter and LinkedIn. These social media channels connect CSE to a green-minded audience and provide a fruitful platform for engaging with the community as well as sharing CSI-Thermal Program updates, promoting workshops and further spreading awareness of SWH.

Web Development

CSE's website devotes several pages to CSI-Thermal Program-specific information at www.energycenter.org/swh. These pages are updated frequently to ensure CSE's CSI-Thermal Program website remains an engaging, accurate and up-to-date resource for local homeowners and businesses who want to learn more about SWH and available rebates.

5.4.3 Pacific Gas and Electric Company

PG&E engaged in numerous and diverse marketing activities in Q3 2014; some new approaches and some of the standard workshops, classes and other marketing efforts that have shown success. 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 its 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 Program 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.

CSI-Thermal Program Workshops

The CSI Thermal Program held two Contractors and Self Installers Workshops, which is a mandatory class for all contractors who wish to take part in the CSI Thermal Program. Both classes, while only modestly attended, were well received by attendees.

- July 7, 2014 – Contractors and Self Installers Workshop; Pacific Energy Center, San Francisco. 5 students

- September 4, 2014 – Contractors and Self Installers Workshop; Pacific Energy Center, San Francisco. 15 students

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 Q3 2014:

- September 25, 2014 – Solar Water Heating Basics; Pacific Energy Center, San Francisco. 34 students.

Customer and Industry Events

PG&E Solar Water Heating Booth to showcase the CSI-Thermal Program

2014 Intersolar North America Conference & Exhibition 7/8-10/14 San Francisco, CA

This event was targeted towards key stakeholders in the solar and distributed generation industry and is the largest event of its kind in California. The PG&E presence consisted of a 10x10 space with a SWH booth at the Exhibition as a means to provide continued exposure to the CSI-Thermal Program. This event allowed PG&E staffers to engage face-to-face with potential SWH customers, contractors and other influencers.

PG&E Partnered with CALSEIA to co-sponsor Contractor Day at Intersolar and host a Finance Workshop

At Intersolar North America, in San Francisco, PG&E partnered with CALSEIA on their first ever Contractor Day on July 8, 2014. CALSEIA's Contractor Day is designed to keep established solar PV

and thermal contractors ahead of the curve while also giving new market entrants, such as HVAC professionals, remodelers, and plumbers, the tools they need to get into the solar market.

PG&E hosted a Panel/Workshop for solar thermal and PV contractors and other interested parties on Financing Options for Solar Water Heating Projects.

The goal of the workshop was to hear from solar thermal and financing experts about the various financing models in the market—from commercial banks and credit unions to various PACE options and new third-party financing models. The panel of experts explored how these finance options work and provided examples of success stories in order to help overcome the barriers in financing SWH projects and gain insights on how to keep the industry growing.

2014 Campaign

PG&E spent a significant amount of time in Q1 and Q2 2014 gearing up to launch its local multi-channel, multi-touch marketing campaign. The local effort consists of both direct to customer outreach as well as local paid media as an extension of the statewide effort. Q3 2014 represented a very active time for PG&E's local marketing and outreach as outlined below:

PG&E Solar Water Heating Website

PG&E has a webpage on pge.com dedicated to SWH. In order to complement the statewide and local effort, PG&E revamped the SWH customer webpages to support interested prospects. The effort improved the online experience by providing the necessary information along the customer's journey to making a purchase decision for SWH. It also more easily connects customers with contractors and will be further enhanced by the incorporation of a Find a Contractor tool before year end.

Print Collateral

PG&E leveraged the statewide SWH brochures to create an updated brochure specific to each applicable customer class—residential, multi-family and commercial. This collateral piece provides a refreshed look and feel as well as condenses the key information needed for customers to take the next step as they explore SWH. These brochures along with the Bid Comparison Form were incorporated together into a "Solar Water Heating Kit," which has served as the primary call to action for the 2014 campaign.

Also in an effort to empower PG&E's internal Sales and Service teams who manage the relationship with our medium and large business customers, a SWH educational insert was created as part of an overall energy management toolkit that captures information on the various programs and services best suited to help a particular business segment.

Direct Mail and Email

Focusing on customers who are the best prospects for SWH systems, as identified through the customer targeting analysis done earlier this year, PG&E deployed a multi-touch email and direct mail campaign. The goal of the campaign is to educate customers on SWH, its benefits and available rebates. In addition, PG&E hopes to engage prospects by driving them further down the consumer funnel towards eligible contractors for consideration of installing a system.

The effort consists of two touches to the best prospects within each of the target audiences—residential, multifamily and commercial. A specific version of the email and direct mail were created in order to deliver the value proposition in a personalized manner based on customer segment and messaging specific to their needs, motives and drivers.

In addition to the two initial prospecting email and direct mail drops, PG&E will be sending a follow-up email and direct mail in Q4 to customers who have expressed interest in SWH by requesting a SWH kit but have not yet converted.

Telemarketing

To assist interested customers throughout the decision making journey, PG&E also made telephone marketing calls directly following the first direct mail drops to inquire whether customers received the direct mail and to assist them with taking the next step—getting a Solar Water Savings Kit and finding a contactor. PG&E also used the opportunity to further educate interested customers by answering questions or fielding any concerns about SWH.

Online Paid Media

To support the direct marketing and outreach to customers, PG&E also launched online paid media through IP Targeting, Search Retargeting, Retargeting and Mobile through digital partners such as The Trade Desk, 9th Decimal and Magnetic. The IP Targeting is to engage users who have expressed interest in SWH systems in the past and those who have already received our direct mail or email. While Search Retargeting and Retargeting components focus on users who have expressed interest in SWH by conducting searches through each of the major search engines and those who visited the pge.com SWH webpages but did not take action.

Static and Flash banner ads were created to run from 8/29-12/31/14 in the following sizes:

- 160x600
- 300x250
- 728x90
- 320x50 (mobile)

The online campaign has delivered over 11 million impressions and 4,173 leads to the pge.com SWH webpages.

5.4.4 Southern California Edison Company

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

Because SCE and SCG have overlapping service territories, the two utilities offer the monthly training at their respective energy centers on an alternating basis and cross-promote it on their respective websites as well as in the *Go Solar, California* newsletter. For this reporting period, SCE canceled the August class due to no 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 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 Q3 2014, SCE held two Commercial Solar Workshops at its Energy Education Center (EEC) in Irwindale and one in the City of Irvine, with a total of 30 attendees. There were seven webinars with 28 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:

- Intersolar North America, San Francisco, 7/8–9/14
- SCE Contractor Workshop, Garden Grove, 8/12/14
- BOMA Greater LA Sustainability Conference, Los Angeles, 8/19/14
- SCE Water Conference, Irwindale, 9/9–10/14
- SCE Hispanic Heritage Month Celebration, Irwindale, 9/17/14
- LPA OC Community Forum, Garden Grove, 9/19/14

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. SCE is evaluating what future marketing efforts to pursue that will be most beneficial and cost effective.

[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 Q3 2014, the CSI-Thermal Program has demonstrated a commitment towards improvement and balancing the complex needs of ratepayers, customers, industry, and the marketplace. The PAs 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 PAs look forward to a favorable CPUC response to the PTM and the AL filed during Q3 2014. The implementation of these requested program changes will continue to contribute to developing stronger relationships and greater collaboration for the benefit of the market and the Program. The PAs anticipate that with these proposed program enhancements, the program will continue to see an increase in participation, especially in the solar pool heating system program.