

# California Solar Initiative Thermal Program

## Quarterly Progress Report

(April 1 – June 30, 2015)

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Center for Sustainable Energy™



A  Sempra Energy utility®

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# 1. Executive Summary

## 1.1. Introduction

Pacific Gas and Electric (PG&E) Company, on behalf of the California Solar Initiative (CSI) Thermal (CSI-Thermal) Program Administrators (PAs),<sup>1</sup> submits this Second Quarter (Q2) 2015 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.<sup>2</sup>

This report provides an overall qualitative and quantitative review of the CSI-Thermal Program from January 1, 2010 through June 30, 2015. 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.

## 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.<sup>3</sup> 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 solar water heating (SWH) technologies under the CSI until a pilot program for SWH technologies was conducted in the service territory of San Diego Gas & Electric Company (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 Assembly Bill (AB) 1470 (Stats. 2007, ch. 536),<sup>4</sup> 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.

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<sup>1</sup> 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).

<sup>2</sup> D.10-10-022, Ordering Paragraph 13 and Appendix A.

<sup>3</sup> Public Utilities Code § 2851, enacted by Senate Bill (SB) 1 (Murray), Chapter 132, Statutes of 2006

<sup>4</sup> Public Utilities Code § 2860-2867

On January 21, 2010, the CPUC established the CSI-Thermal Program,<sup>5</sup> 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 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 the exception of 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.

On January 29, 2015, the CPUC issued D.15-01-035, effective January 29, 2015. The Decision modified the CSI-Thermal Program to raise incentive rates for single-family, multifamily, commercial, and low-income applications. Additionally, it increased the maximum rebate allowed for multifamily/commercial applications; reallocated the incentive budget to 10% single-family, 60% multifamily/commercial and 30% solar pools; placed a 50% incentive cap on solar pool systems; and allowed the PAs to make future program changes through the filing of a Tier 2 Advice Letter rather than a Petition for Modification.

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<sup>5</sup> D.10-01-022

The CSI-Thermal Program is designed to significantly increase the adoption rate of SWH technologies in the California marketplace. The budget as noted above was authorized by AB 1470 and by Senate Bill (SB) 1. One of the primary goals of the CSI-Thermal Program is to lower the cost of SWH technologies for the System Owner through incentives. Incentive rates decline over the life of the program in four steps to facilitate market transformation.

Additional information regarding program goals, budgets, incentive structures, and eligibility can be found in detail in the CSI-Thermal Program Handbook.<sup>6</sup>

### **3. Program Expenditures**

From program inception through June 30, 2015, CSI-Thermal Program expenditures totaled \$65,192,918. Table 1 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 2 and Table 3.

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.

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<sup>6</sup> The CSI-Thermal Handbook is located at [http://gosolarcalifornia.org/documents/CSI-Thermal\\_Handbook.pdf](http://gosolarcalifornia.org/documents/CSI-Thermal_Handbook.pdf).

**Table 1: CSI-Thermal Expenditures by PA**

<b>Natural Gas and Electric/Propane</b>					
<b>CSI-Thermal Program Expenditure Data January 1, 2010 to June 30, 2015</b>					
<b>Expenditure Type</b>	<b>CSE</b>	<b>SCE</b>	<b>PGE</b>	<b>SCG</b>	<b>Total</b>
<b>Administration</b>	\$1,843,975	\$877,303	\$4,578,479	3,161,428	<b>\$10,461,185</b>
<b>Market Facilitation</b>	\$1,890,867	\$902,314	\$7,125,389	8,286,659	<b>\$18,205,229</b>
<b>Measurement &amp; Evaluation</b>	\$20,954	\$1,427	\$8,774	0	<b>\$31,155</b>
<b>Incentives Paid</b>	\$5,742,463	\$62,997	\$12,585,803	18,104,086	<b>\$36,495,349</b>
<b>Total</b>	<b>\$9,498,259</b>	<b>\$1,844,041</b>	<b>\$24,298,445</b>	<b>\$29,552,173</b>	<b>\$65,192,918</b>

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

**Table 2: CSI-Thermal Expenditures by PA (Natural Gas)**

<b>Natural Gas</b>				
<b>April 1 – June 30, 2015</b>				
<b>Expenditure Type</b>	<b>CSE</b>	<b>PG&amp;E</b>	<b>SCG</b>	<b>Total</b>
<b>Administration</b>	\$58,829	\$509,458	177,499	<b>\$745,786</b>
<b>Market Facilitation</b>	\$42,070	\$830,665	846,779	<b>\$1,719,514</b>
<b>Measurement &amp; Evaluation</b>	\$1,324	\$438	0	<b>\$1,762</b>
<b>Incentives Paid</b>	\$572,415	\$2,127,101	3,062,958	<b>\$5,762,474</b>
<b>Total</b>	<b>\$674,638</b>	<b>\$3,467,661</b>	<b>\$4,087,236</b>	<b>\$8,229,535</b>

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

**Table 3: CSI-Thermal Expenditures by PA (Electric/Propane)**

Electric/Propane				
April 1 – June 30, 2015				
Expenditure Type	CSE	PG&E	SCE	Total
Administration	\$11,083	\$0	\$31,135	\$42,218
Market Facilitation	\$10,517	\$0	\$831	\$11,348
Measurement & Evaluation	\$331	\$262	\$0	\$593
Incentives Paid	\$0	\$0	\$0	\$0
<b>Total</b>	<b>\$21,932</b>	<b>\$262</b>	<b>\$31,967</b>	<b>\$54,161</b>

## 4. Program Progress

The CSI-Thermal Program has a solar thermal statistics website, which can be found at <http://csithermalstats.org/>. This website provides vital program statistics in easy-to-read charts and graphs, offers access to the program’s master data set, and includes resources for customers to find a local contractor.

When contractors or homeowners apply for incentives with the CSI-Thermal Program, they provide data about their residence or business and the solar thermal system they will install. California Solar Thermal Statistics analyzes selected data expected to be of greatest interest to the public. The data is updated every other week.

The View Solar Thermal Statistics menu provides the following program data: Program Totals, Statistics by Application Status, Quarterly Series Comparisons, Statistics by County, Statistics by Climate Zone, Cost by System Size, Applications by Sector, Savings Distribution, Budget Reports, and Data Annex. The dynamic filters on each figure allow you to slice and dice the program data to suit research and evaluation needs.

Data from past quarterly reports can be recreated and tracked with current data using the CSI-Thermal Statistics site, including but not limited to program budgets, costing data, and incentive step levels.

### 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 4 through 6 reflect the reporting period from April 1 through June 30, 2015.

Table 4 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 5 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 6 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 4: 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
	Q2	Q2	Q2	
<b>Multifamily-Commercial</b>				
<b>CSE</b>	75.00%	81.25%	18.75%	16
<b>PG&amp;E</b>	92.00%	100.00%	0.00%	25
<b>SCE</b>	0.00%	0.00%	0.00%	0
<b>SCG</b>	57.35%	97.06%	2.94%	68

**Table 5: 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
	Q2	Q2	Q2	
<b>No Inspection: Percentage of applications without inspection with processing time between Incentive: Application Review and Incentive: Approved as described.</b>				
CSE	50.00%	100.00%	0.00%	2
PG&E	98.33%	100.00%	0.00%	60
SCE	0.00%	0.00%	0.00%	0
SCG	83.33%	83.33%	16.67%	6
<b>Inspection: Percentage of applications with inspection with processing time between Incentive: Application Review and Incentive: Approved as described.</b>				
CSE	0.00%	33.33%	66.67%	3
PG&E	83.33%	83.33%	16.67%	6
SCE	0.00%	0.00%	0.00%	0
SCG	0.00%	14.29%	85.71%	7
<b>Percentage of applications with processing time between Incentive: Application Review and Incentive: Paid as described.</b>				
CSE	0.00%	100.00%	0.00%	3
PG&E	41.67%	98.61%	1.39%	72
SCE	0.00%	0.00%	0.00%	0
SCG	33.33%	40.00%	60.00%	15

**Table 6: Processing Time from Application Review to Incentive Approval (2- Step - Commercial or Multifamily Residential)**

Program Administrator	30 Days or Less	60 Days or Less	Greater than 60 Days	Total
<b>No Inspection: Percentage of applications without inspection with processing time between Incentive: Application Review and Incentive: Approved as described.</b>				
CSE	100.00%	100.00%	0.00%	14
PG&E	100.00%	100.00%	0.00%	16
SCE	0.00%	0.00%	0.00%	0
SCG	70.93%	93.02%	6.98%	86
<b>Inspection: Percentage of applications with inspection with processing time between Incentive: Application Review and Incentive: Approved as described.</b>				
CSE	0.00%	60.00%	40.00%	5
PG&E	71.43%	85.71%	14.29%	7
SCE	0.00%	0.00%	0.00%	0
SCG	12.77%	36.17%	63.83%	47
<b>Percentage of applications with processing time between Incentive: Application Review and Incentive: Paid as described.</b>				
CSE	46.15%	76.92%	23.08%	26
PG&E	31.58%	84.21%	15.79%	19
SCE	0.00%	0.00%	0.00%	0
SCG	25.55%	72.26%	27.74%	137

## 5. Market Facilitation

### 5.1 Statewide Marketing Facilitation Effort

#### CSI-Thermal Statewide Working Group

The CSI-Thermal Statewide Working Group executed monthly meetings during the second quarter to collaborate and exchange ideas for continuing to utilize diverse marketing and outreach channels to promote SWH.

## 5.2 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.<sup>7</sup> As part of the statewide effort, the PAs coordinated this activity and developed a one-day Contractor and Self-installer curriculum for the training workshop.

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

Table 7 shows the number of workshops held in each service territory during Q2 2015 and the number of attendees. As of June 29, 2015, there are 585 licensed eligible solar contractors statewide.

**Table 7: Mandatory CSI-Thermal Workshops Held by Program Administrator**

	Q2 2015	
PA	Number of Workshops	Number of Attendees
CSE	1	7
PG&E <sup>8</sup>	2	15
SCE	0	0
SCG	2	7
<b>Total</b>	<b>5</b>	<b>29</b>

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<sup>7</sup> <http://gosolarcalifornia.org/>.

<sup>8</sup> PG&E cancelled one scheduled class in Q2 2015 due to lack of enrollment.

## 5.3 PA-Specific Marketing Efforts

### 5.3.1 Southern California Gas Company

In Q2 2015, SCG continued collaborating with Alternative Energy Systems Consulting (AESC) to provide mandatory contractor and self-installer training courses (2 Courses with 7 attendees). SCG's course was offered at its Energy Resource Center in Downey, California.

#### Trade Shows and Events

SCG promoted the CSI-Thermal Program as an exhibitor at the following shows and events during Q2 2015. At each venue, brochures and promotional items were distributed.

#### ***Solar co-sponsored with other SCG Programs***

April 17, 2015	Mid-City Green Fest – West Hollywood, CA
April 18, 2015	Claremont Earth Day – Claremont, CA
April 22, 2015	Earth Day at Grand Park – Los Angeles, CA
April 24-26, 2015	Upland Lemon Festival – Upland, CA
May 16-17, 2015	California Strawberry Festival – Oxnard, CA
May 29-31, 2015	Summerfest Brea – Brea, CA
May 29-31, 2015	Dwell on Design – Los Angeles, CA (Experiential Unit)
June 03, 2015	West Coast Energy Management Congress Conference – Long Beach, CA
June 6-7, 2015	Palos Verdes Street Fair – Rancho Palos Verdes, CA
June 11, 2015	Annual Universal Safety Day – Los Angeles, CA
June 13, 2015	5 <sup>th</sup> Annual Soulnic Music Festival and Picnic – Los Angeles, CA
June 19-21, 2015	Santa Barbara Summer Solstice – Santa Barbara, CA (Experiential Unit)
June 28-30, 2015	2015 Every Building Conference and Expo – Los Angeles, CA (Experiential Unit)

#### Local Market Facilitation Plan

Throughout Q2, SCG began implementation of its local marketing campaign for the CSI-Thermal Program. In the month of June, SCG began production of television commercial "Just the Facts". Currently the commercial is being edited and will be in market Q3. The TV execution will reinforce the benefits of SWH within the Commercial & Industrial sector.

## Solar Microsite

SCG microsite, solarwaterheating101.com, continues to be a valuable resource for residential and commercial consumers. They can use it to find the latest information on different types of systems and rebates. Average visitor time spent on the microsite increased more than 50% compared to Q2 of last year.

## 2015 CSI-Thermal Local Media Plan

SCG finished working with Phelps to design a new Experiential Tour Vehicle. The new “Solarista” unit has a streamlined design and more customer centric engaging hot beverage concept to generate awareness. During Q2 2015 the unit was present at three events.

In Q2 2015, SCG began production on digital video with our Solar Champion, UCLA. UCLA’s Chief Sustainability Officer, Nurit Katz is featured in the video, speaking to the positive benefits of SWH in the residence and dining halls within the University. The video will be in market Q3 of this year.

SCG continues to build on the *Dwell* magazine regional partnership. SWH Program Manager Mike Landau shared the stage with Nurit Katz of UCLA to participate in a panel discussion titled “Solar Water Heating: A Sustainable Natural Gas Innovation”, at the annual *Dwell on Design* event in Los Angeles, CA in May.

### **5.3.2 Center for Sustainable Energy**

#### Summary

Q2 2015 built upon the active planning and development of the previous quarter at CSE. Among some of the primary M&O-related tasks were launching an integrated digital marketing campaign including digital advertising (individual properties and ad networks), pay-per-click and social advertising, and content marketing.

#### Training and Education

CSE conducted the following SWH workshops in Q2 2015. A brief description of each workshop follows.

Workshop Title	Date	Attendees
Solar Water Heating Basics for Homeowners	4/08/2015	16
How to Become an Eligible Contractor in the CSI-Thermal Program	5/14/2015	7
Solar for Homeowners (PV/SWH)	6/09/2015	140
Solar Water Heating Basics for Homeowners	6/10/2015	12

#### 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.

### [Solar for Homeowners](#)

This quarter, CSE has worked to create an integrated solar for homeowners workshop where attendees are informed about both SWH and solar photovoltaics (PV).

### [Workshop Promotion](#)

CSE leveraged the following in-house communication platforms during Q2 2015 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 spreading awareness of SWH. In addition to occasional posting about solar thermal and upcoming workshops, CSE also began our 2015 digital media campaign, which included paid social media advertising during Q2 2015.

### [Marketing Activities by Tactic](#)

#### **Events:**

CSE was actively engaged in events outreach during Q2 2015 and promoted the CSI-Thermal Program as an exhibitor at the following shows and events. Brochures and promotional items were distributed at each venue.

- Building Industry Association: Meet the Builder (builders) – 4/15/2015
- Earth Day in Balboa Park (residential) – 4/19/2015
- Chula Vista Solar Water Heating Workshop (residential/commercial) – 4/21/2015
- Build It Green Multifamily Webinar (multifamily) – 4/22/2015
- San Diego County Apartment Association (SDCAA) 2015 Expo (multifamily) – 4/28/2015
- SDG&E Energy Showcase at San Diego Convention Center (commercial) – 6/18/15

## **Paid Advertising:**

### **Homeowners**

CSE has long recognized the challenging economics of SWH adoption within the residential market. Recognizing that high-income homeowners may be more willing to invest in SWH despite the long-term financial payback, CSE continued targeted high-income households during Q2 2015 via a print ad in a regional luxury home magazine. While CSE has not seen successful ad performance in terms of web traffic as a result of these ads, the residential print advertising strategy remains an effective means to generate SWH awareness and recognition among this highly-influential target market segment.

#### **Dream Homes – April 2015**

Monthly Distribution: 18,000 (print)

### **Multifamily**

With nearly half of San Diego County's three million residents currently living in rental housing, the multifamily market presents a promising opportunity for SWH adoption in San Diego.

Recognizing continued interest by contractors in the multifamily sector and the potential of recently increased rebates to further enhance the value proposition of SWH among this market segment, CSE has continued to actively engage and conduct targeted advertising to the multifamily market throughout Q2 2015.

#### **San Diego Count Apartment Association (SDCAA):**

##### **SDCAA Advisor Newsletter:**

The SDCAA Advisor newsletter is distributed twice per month to over 4,200 members (multifamily apartment owners and managers) in San Diego County. According to Multibriefs, the organization that handles the SDCAA Advisor email distribution, the newsletter generally receives a 33.33% open rate and provides an average of 1,454 impressions per issue.

During Q2 2015, the SDCAA Advisor email newsletter provided a relatively low-cost means to reach the highly desirable multifamily target audience.

##### **Digital Banner Ads**

During Q2 2015, CSE ran six (6) ads resulting in 30 clicks to CSE's multifamily landing page for an average click-through rate of 0.36% (up from 0.23% in Q1 2015) and a total of 8,695 impressions. Revised creative produced in March was reason for the uptick in click-through rates.

### **Commercial**

Almost every business uses hot water, whether it is for hand sinks and showers or high-volume commercial dishwashers, heavy-duty laundries, pools or industrial processes. The focus of Q2 2015 marketing efforts for commercial solar thermal consisted of furthering

exploratory research efforts with the goal of identifying promising target industries in San Diego.

### **Commercial/ Industrial Lead Generation**

The 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 which clean energy technologies (including solar thermal) are most favorable for their business operations. CSE made multiple UX improvements to this tool during Q1 2015 and promoted the tool to facilities managers, property managers and energy engineers in Q2. A few high quality assessments enabled energy engineers and program staff to speak with interested commercial customers about SWH for their properties.

### **San Diego Business Journal (SDBJ):**

The CSI-Thermal Program collaborated with other distributed generation (DG) programs at CSE to promote the clean energy assessment via the San Diego Business Journal newspaper on April 20, 2015; other digital offerings (digital banner ads on SDBJ.com and email newsletter ads) were in market during the month of April.

Print Ad: The CSI-Thermal Program participated in the production and funding of a half-page print ad which appeared in the April issue of “Sustainable San Diego” – SDBJ’s monthly supplement dedicated to the exploration of business and sustainability.

Article: The CSI-Thermal Program contributed to the production of an integrated article that explores multiple DG technologies including SWH and is scheduled to appear in the April issue of Sustainable San Diego.

### **Web Development**

CSE’s website devotes several pages to CSI-Thermal Program-specific information at [www.energycenter.org/swh](http://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, available rebates and how to find a contractor.

### **CSE Website Optimization**

In addition to routine updates to CSI-Thermal Program web content (e.g., news, program updates, SEO improvements, etc.), during Q2 CSE developed content for contractor page web updates that are being implemented in Q3 (July/August) 2015.

The commercial and homeowner web optimizations that were implemented in the middle of Q1 2015 are being tracked via website behavior flow analytics with the goal to continue optimizing these pages.

In order to keep web traffic flowing to the CSI-Thermal Program webpages in the wake of the CSI-Thermal Statewide digital media campaign, CSE has also included the continuation of a digital media campaign effort within its 2015 M&O Plan. Q2 leveraged Q1 planning and development for the 2015 digital campaign effort which utilizes search engine optimization, digital banner ads and paid search tactics to direct users to the newly revised SWH landing pages on CSE's website. AdWords (Google, Bing/Yahoo) campaigns advertised SWH via general and branded ad groups, and Facebook ads were used selectively to promote solar thermal workshops.

### **5.3.3 Pacific Gas and Electric Company**

Throughout the Q2 2015, PG&E has been planning and preparing to execute a marketing and outreach campaign targeting Residential, Commercial and Multi-family properties. PG&E has evaluated the successes and opportunities from previous efforts to inform the activities in 2015. The primary objectives for the larger campaign are to:

- Promote an understanding of the Solar Water Heating (interest and education) and its benefits.
- Drive engagement with the CSI-Thermal Program (leads and qualified leads).
- Increase conversion and rebate fulfillment through continuous support and resources.

#### **CSI-Thermal Program Workshops**

PG&E's CSI-Thermal Program held two Contractors and Self-Installers Workshops in Q2 2015 – a third scheduled Workshop was cancelled due to lack of enrollment. The workshops were administered by the PG&E Program Administrator and the lead partnering Professional Engineer, leveraging the facilities of the Pacific Energy Center in San Francisco. All qualifying technologies are covered, in detail, and contractors were instructed how to access and properly use the CSI-Thermal Program tools, as previously outlined in section 5.3. The workshops continue to be important elements to convey program requirements and to ensure all installers are well prepared to engage successfully with the CSI-Thermal Program. Licensed contractors, self-installers and interested members of local governments have leveraged our Workshops, and the format continues to be an important tool for education, outreach and engagement with the solar community as a whole.

- 4/6/2015 – Pacific Energy Center, San Francisco – 7 attendees
- 5/18/2015 - Pacific Energy Center, San Francisco – offered but cancelled due to lack of attendance
- 6/30/2015 - Pacific Energy Center, San Francisco – 8 attendees

#### **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 of the CSI-Thermal Program for residential and multifamily/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.

### SWH Content for Businesses

PG&E has continued to deploy content with valuable resources for businesses searching for expertise and insights on SWH. This content (e.g., articles, eBooks, infographics) was created to raise awareness of SWH as a viable energy management option and increase engagement with our SWH booklet (eBook), which serves as the primary call to action. Traffic to the content is driven via Google search, social media and other PG&E communications. Customers are directed to the Business Resource Center on pge.com or straight to the download pages for eBooks/Infographics. Triggered communications are sent to eBook downloaders.

### SWH Webpages

PG&E has revamped its SWH webpages to establish them to be a trustworthy source for SWH information for interested parties and leads driven there through the campaign. The overall objective is to create a better web experience for customers that educates and helps them make informed decisions when interested in SWH. We also wanted to ensure the information provided is instructive about the processes and responsibilities for finding a contractor, the rebate application and system installation.

### Digital Media

The primary objective of the digital media effort, absent any supporting statewide media, is to increase participation in the CSI-Thermal Program by educating and engaging customers through the front-end part of the purchasing process. We will also be remarketing to those residential and commercial targets that have visited the site but have yet to take further action (i.e., search for a contractor).

These efforts will build on the awareness accomplished through the statewide effort among customers within the PG&E footprint on a cost-effective basis. With digital media, we will be able to reach new and current homeowners, commercial business owners (commercial buildings and multi dwelling units) and contractors when they are looking for solar-related, home improvement,

energy efficiency, and green-related news and information. This channel allows us to tailor the right message to each target audience as well as drive them to the appropriate URL (i.e., Residential URL or Commercial URL). The effort will be overlapped in the areas where our direct-to-customer activities, such as direct mail and email, have been launched, ensuring a multi-channel, multi-touch strategy to reinforce the message and drive the most engagement.

The media determined to be most efficient in achieving these goals is:

- Social Media
- Search Engine Marketing (SEM)
- Native
- Display/Banner Ads
- Remarketing (retargeting leads)

### **5.3.4 Southern California Edison Company**

SCE continues its efforts to increase adoption of SWH systems. Because SCE and SCG have overlapping service territories, we are directing interested contractors and self-installers to SCG's monthly training center. Since CSI-Thermal Program rebates are no longer available in our territory, there is low to no interest for training.

#### **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:

- April 1-2           City of LA Dept. of Building & Safety Solar Permit Sponsorship
- April 18-19       Santa Barbara Earth Day
- April 22           Fourth Annual SBC Industry Achievement Awards
- May 1             Asian American Pacific Islander Heritage
- May 20-21        Southern California Facilities Expo, Anaheim
- June 3-4          West Coast Energy Management Congress

#### **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 Website](#)

SCE has a dedicated section of its SCE.com website to promoting the CSI-Thermal Program at [www.sce.com/solarwaterheating](http://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 SCG.

## **6. Conclusions**

Through Q2 2015, 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 and where appropriate and when scientific or market-based reasons to do so exist. Since program inception, more than 2,700 projects have been completed, accounting for over \$37 million in statewide incentive payments and annual savings in excess of 2.5MM therms.