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**BEFORE THE PUBLIC UTILITIES COMMISSION
OF THE STATE OF CALIFORNIA**

Order Instituting Rulemaking Regarding Policies,
Procedures and Rules for the California Solar
Initiative, the Self-Generation Incentive Program and
Other Distributed Generation Issues.

Rulemaking 10-05-004
(Filed May 6, 2010)

**PETITION OF THE CALIFORNIA SOLAR ENERGY INDUSTRIES ASSOCIATION
FOR MODIFICATION OF D.10-01-022 ESTABLISHING THE CALIFORNIA SOLAR
INITIATIVE THERMAL PROGRAM TO PROVIDE SOLAR WATER HEATING
INCENTIVES**

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January 30, 2012

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Pursuant to Rule 16.4 of the California Public Utilities Commission’s (“Commission’s”) Rules of Practice and Procedure, the California Solar Energy Industries Association (CALSEIA) respectfully submits this Petition for Modification (“Petition”) of Decision (“D.”) 10-01-022 entitled Decision Establishing the California Solar Initiative Thermal Program to Provide Solar Water Heating Incentives (“Decision”).

I. INTRODUCTION.

This Petition was filed to comply with Rule 16.4(e) of the Commission’s Rules of Practice and Procedure (“Rules”). The reason that this Petition was not filed within one year of the effect date of the Decision is because CALSEIA thought it was appropriate to wait at least two years to determine whether participation levels in the CSI-Thermal Program would increase eventually without having to change the CSI-Thermal Program’s operations or incentive

structure in any way. After two years, however, CALSEIA has concluded that participation in the program will remain low unless it is modified per CALSEIA's suggestions.

The Decision to implement Assembly Bill (AB) 1470, the "Solar Water Heating and Efficiency Act of 2007" (the "Act")¹ should be modified to provide for certain adjustments to the incentive structure now in use by the Commission to achieve the goal of the Act to install at least 200,000 solar water heating systems (SWHs) by 2017. As explained in this Petition, the existing incentive structure as set forth in the CSI Thermal Program Handbook (Handbook) has been insufficient to drive participation in the CSI Thermal Program (Program) adequate to meet Program goals. This Petition asks the Commission to revise the incentive structure adopted in Decision (D.)10-01-022, filed on January 21, 2010, under Rulemaking (R.) 08-03-008. (The Commission closed R.08-03-008 on May 12, 2011, but continued the work of that rulemaking by issuing Decision R. 10-05-004.)

II. DISCUSSION

CALSEIA believes that a revision of the incentive structure allowing for increased incentives in early Program years, followed by reduced incentives in later years, will have the effect of increased engagement and participation in the Program, similar to desired effects seen for solar electric technologies resulting from an incentive restructuring made by the California Energy Commission in 2001 in response to less than expected participation in the Emerging Renewables Buydown Program in the time following its introduction. The decision to increase the rebate for eligible systems of all sizes was made by the California Energy Commission in May 2001, retroactive to February 8, 2001, and provided for an increase in the buydown

¹ Chapter 536, Statutes of 2007, codified as California Public Utilities Code § 2860-2867.

incentive to 50 percent of the system cost.² This in turn led to a 462% increase in system installations in calendar year 2001 over 2000, from 217 systems to 1,220, followed by 84%, 32%, and 54% increases, year over year, in each of the following years.³

The goal of the legislature in enacting AB 1470 was clearly stated:

“...It is the intent of the Legislature to build a mainstream market for solar water heating systems that directly reduces demand for natural gas in homes, businesses, and government buildings. Toward that end, it is the goal of this article to install at least 200,000 solar water heating systems on homes, businesses, and government buildings throughout the state by 2017, thereby lowering prices and creating a self-sufficient market that will sustain itself beyond the life of this program.”⁴

The goals of the Program are further elaborated in the Handbook.⁵

“...The primary goals of the CSI-Thermal Program include the following:

- Significantly increase the size of the SWH [solar water heating] market in California by increasing the adoption rate of SWH technologies, including:
 - Achieving 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;
 - Achieving the installation of electric-displacing SWH systems that displace 275.7 million kilowatt hour (kWh) per year (equivalent to 100,800 single-family residential systems); and
 - Achieving an expansion of the market for other solar thermal technologies that displace natural gas and electricity use, in addition to SWH.”

In Decision 10-01-022 establishing the Program, the Commission adopted the staff

recommendation for establishing incentive amounts:

² See Emerging Renewable Resources Account Guidebook, Revised May 2001; Summary of Buydown Program, Table 2, page 6

http://www.energy.ca.gov/renewables/documents/archive/emerging_renewables/BUYDOWN_GUIDEBOOK-revised-0501.PDF

³ http://www.energy.ca.gov/renewables/emerging_renewables/COMPLETED_BEFORE_1-1-05.XLS

⁴ California Public Utilities Code § 2862 (k)

⁵ California Solar Initiative Thermal Program Handbook Rev 5.0; Page 2, Section 1.3 Program Goals

7. Incentive Design

The Staff Proposal recommends up front incentives for both gas-and electric-displacing SWH funded through the CSI Thermal Program. Incentives would be calculated based on estimated first-year therm or kWh displacement of the SWH system. According to the proposal, the incentives are set at levels sufficient to offer SWH system owners a reasonable return on their investment.⁶

CALSEIA was pleased to participate in the Program workshop process conducted by the Commission in 2009, where implementing rules and regulations were developed, however during that process CALSEIA argued for a significantly higher level of incentives at the outset of the Program than that which was ultimately authorized by the Commission. CALSEIA's position was based on earlier experience which led the California Energy Commission in 2001 to implement a 50 percent increase in the incentive levels for photovoltaic systems under the Emerging Renewables Buydown Program, from \$3.00 to \$4.50 per Watt, or up to 50 percent of the installed system price, due to insufficient consumer response to the initial incentive level. Resulting consumer response to the enhanced Emerging Renewables Program incentive levels led to a dramatic increase in solar photovoltaic installations within a matter of months. CALSEIA believes that by making a similar augmentation to CSI-Thermal Program incentive levels consumer interest will increase in a like manner.

III. RESIDENTIAL INCENTIVES SHOULD BE INCREASED BY 100 PERCENT

To stimulate the market for SWH systems to a degree sufficient to achieve the goals set forth in the enabling legislation and in the Decision, CALSEIA believes that an increase in 1st Step incentive amounts of 100 percent for residential customers who install solar water heating systems is warranted. We note that even with this significant increase in the 1st step, the

⁶ Decision at page 28

incentive would remain a fraction of the incentive amount allocated for PV systems after the augmentation of the Emerging Renewables Program.⁷

CALSEIA recommends this increase based on extensive discussions with participating contractors, who unanimously point to the current incentive levels as the main obstacle to customer willingness to participate. While many contractor participants also decry the absence of a state-wide public relations campaign as a contributing factor to the lack of consumer interest, the incentive level obstacle only manifests once a contractor has already made the marketing investment required to locate a prospective customer. It is during the actual sales presentation to a prospective residential customer that the financial value proposition is outlined. For participating contractors around California, it is at this point that the prospective customer declines to participate based on system purchase economics.

CALSEIA recognizes that by increasing the 1st step incentive, corresponding changes to one or more of the following incentive steps may be required.

IV. COMMERCIAL INCENTIVES SHOULD BE INCREASED BY 30 PERCENT

CALSEIA recommends an increase in 1st step commercial incentives of 30 percent, again after consultations with numerous contractor stakeholders involved in the Program. Commercial sales have proven to be somewhat less impacted by the current incentive structure, however we believe that this augmentation will result in a significant increase in Program uptake by eligible customers.

⁷ International convention establishes a peak thermal equivalent generating capacity for solar heating collectors of 0.7 kW per square meter. See: Converting Installed Solar Collector Area & Power Capacity into Estimated Annual Solar Collector Energy Output, page 2; “The Need for Energy Production Estimates” http://www.iea-shc.org/statistics/commoncalculation/Calculation_Method.pdf (1 square meter = 10.76 square feet. 700W / 10.76 = 65W per square foot = \$292.50 per square foot of collector area @ \$4.50/Watt. This equates to a system incentive of \$11,718.00 for a 40 square foot SWH that would be eligible for a maximum incentive of \$1,875 under the current CSI-Thermal incentive structure.)

CALSEIA recommends that no incentive increase be made for systems qualifying under the Low-Income Solar Water Heating Component of the Program, due to its recent establishment at incentive levels considerably higher than those already in place for the balance of the Program.

V. **A SUBSTANTIAL INCREASE IN SWH SYSTEM SALES WILL NECESSITATE INCREASED TRAINING FOR INSTALLING CONTRACTORS**

CALSEIA anticipates that the increase of incentives resulting from a granting of this Petition will result in a welcome and significant influx of new entrants into the solar heating contracting business. Under Program provisions and California Contractor State License law, contractors licensed under the A, B, C-4, C-36 and C-46 Contractor classifications are eligible to install SWH.⁸ While existing provisions of the Program require that eligible contractors attend a CSI Thermal Training Workshop as a prerequisite for Program participation, CALSEIA believes a more comprehensive training requirement should be established for those contractors wishing to participate in the Program who have little or no recent experience in the installation of SWH. CALSEIA is concerned that otherwise highly qualified contractors who wish to participate in the Program will be unfamiliar with modern day SWH system design and installation principles. Training and education for these previously uninvolved yet otherwise eligible contractors should be available and required to maintain a high level of customer satisfaction with the Program.

Further, to achieve the goal of “significantly increas(ing) the size of the SWH market in California,” CALSEIA believes an education and training pathway for new entrants into the SWH sales and installation workforce must be pursued. Only by expanding the available

⁸ California Solar Initiative Thermal Program Handbook Rev 6.0, Section 2.1.4.2 Contractor License Requirements at page 6.

workforce can the aggressive goal of installing at least 200,000 SWH systems by 2017 be realized.

We urge the Commission to direct the Program Administrators to work with Program stakeholders to implement augmented training requirements and establish education and training programs for new solar heating industry entrants.

VI. THE COMMISSION SHOULD IMPLEMENT THESE AUGMENTATIONS IN CONJUNCTION WITH THE LONG-ANTICIPATED STATEWIDE MARKETING CAMPAIGN

CALSEIA can think of no better timeframe for implementing an augmentation of the Program than at the outset of the Statewide Marketing Campaign (Campaign), which we understand is scheduled to begin in April 2012. We urge the Commission to take advantage of the unique opportunity created by the Campaign's kick-off to put a fresh face on this nearly two year old Program.

VII. CONCLUSION

For the reasons stated herein, CALSEIA respectfully requests that the Commission grant this petition and modify D.10-01-022 as set forth above as expeditiously as possible.

Respectfully submitted,



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January 30, 2012

VERIFICATION

I, Mignon Marks, represent the California Solar Energy Industries Association, and am authorized to make this verification on the behalf of the association. The statements in the foregoing documents are true to the best of my knowledge, except for those matters that are stated on information and belief, and to those matters, I believe them to be true. I declare under penalty of perjury that the foregoing is true and correct.

Dated January 30, 2012, at Rancho Cordova, California.



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