

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 12-11-005
(Filed November 8, 2012)

**THE OFFICE OF RATEPAYER ADVOCATES' RESPONSE TO THE
PETITION OF THE CSI-THERMAL PROGRAM ADMINISTRATORS AND
THE CALIFORNIA SOLAR ENERGY INDUSTRIES ASSOCIATION FOR
MODIFICATION OF D.12-08-008 AND D.13-08-004
REGARDING THE CSI-THERMAL PROGRAM**

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I. INTRODUCTION

Pursuant to Rule 16.4 of the Rules of Practice and Procedure of the California Public Utilities Commission, the Office of Ratepayer Advocates (ORA) submits this response to the Petition of the [California Solar Initiative] CSI-Thermal Program Administrators¹ and the California Solar Energy Industries Association (CALSEIA) for Modification of D.12-08-008 and D.13-08-004 regarding the CSI-Thermal Program (PFM). The PFM would modify D.12-08-008, the “Decision Modifying Decision 10-01-022 to Adjust Incentive Structure in the California Solar Initiative Thermal Program” and D.13-08-004, the “Decision to Incorporate Solar Pool Heating Systems into the California Solar Initiative – Thermal Program.” The PFM seeks to raise the initial incentives for the solar water heating (SWH) portion of the program, as well as to place a cap on the total incentives per installation for the solar pool heating portion of the program. As explained below, ORA generally supports the relief requested in the PFM, including its request for an expeditious decision in order to maximize the impact of ratepayer funded incentives.

II. DISCUSSION

The Commission established the CSI-Thermal Program with D.10-01-022² on January 21, 2010, pursuant to the direction of Assembly Bill (“AB”) 1470, the “Solar Water Heating and Efficiency Act of 2007.” AB 1470³ directed the Commission to design and implement an incentive program for solar water heating (“SWH”) systems with the goal of enabling the installation of systems with a combined energy savings equivalent to 200,000 residential systems – equal to 585 million therms saved over the 25-year lifetimes of systems installed under the CSI-Thermal Program.

The Commission established an incentive level in D.10-01-022 of \$12.82 per therm of avoided natural gas consumption for the installation of single family residential, multifamily

¹ The CSI-Thermal program administrators are Pacific Gas & Electric Company (PG&E), Southern California Gas Company (SoCalGas), and the Center for Sustainable Energy (CSE) in the service territory of San Diego Gas & Electric Company (SDG&E).

² The Commission adopted D.10-01-022 in Rulemaking (R.) 08-03-008, a predecessor to the current rulemaking.

³ Public Utilities Code Section 2863.

housing, and commercial SWH systems. The Commission in D.12-08-008⁴ revised initial incentives upward to \$18.59 per therm for single family installations and \$14.53 per therm for multifamily and commercial installations, while lowering incentives for later steps of the program.⁵ Nevertheless, according to the PFM and the “Review of the Incentive Levels and Progress of the California Solar Initiative-Thermal Program,”⁶ the CSI Thermal Program is still not on track to accomplish its goals. The PFM therefore proposes raising the initial levels of incentives again.⁷

AB 2249 added solar pool heating systems to the CSI-Thermal program.⁸ The Commission implemented solar pool heating incentives in D.13-08-004. That part of the program has had greater success, and the PFM recommends that the Commission impose a cap on incentives relative to the total installed cost of systems in order so that incentives cover not more than 50% of a project’s cost as well as establishing a separate budget for the solar pool heating sub program.⁹

The PFM explains that because the CSI Thermal program now includes incentives for commercial solar pool heating systems, which are more cost effective and therefore require lower incentives than other projects, “it is possible frontload incentive money while maintaining [CSI Thermal] [p]rogram goals.”¹⁰

⁴ D.12-08-008 revised CSI thermal incentives upward and provided higher incentives to single family installations than to commercial and multifamily installations in response to the January 30, 2012 petition for modification of CALSEIA.

⁵ In order to promote market transformation, the CSI photovoltaic (PV) program and CSI thermal programs encourage more installations by providing higher incentives at the beginning of the program. The initial incentives decline based on the assumption that costs will decline as more systems are installed. The CSI program has achieved the desired outcome of more installations at a lower cost, but the CSI Thermal program has not had similar success for the reasons discussed in the PFM, including gas prices that fell significantly after the CSI Thermal program began.

⁶ “Review of the Incentive Levels and Progress of the California Solar Initiative-Thermal Program,” prepared by the Commission’s Energy Division, Customer Generation Programs and submitted to the Legislature as directed by Section 2867.1 (b) of the Public Utilities Code, January 29, 2014 (CSI Thermal Review), p. 7.

⁷ PFM, pp. 18-19.

⁸ PFM, p. 4.

⁹ PFM, p. 18.

¹⁰ PFM, p. 20.

A. The Commission should grant the PFM’s request to raise incentives to promote market transformation while maintaining the CSI Thermal therm goal.

The PFM notes that the SWH market has not experienced the market transformation effects of the CSI PV program, even though the “greenhouse gas reduction benefits of SWH are far higher per system than those of PV, and SWH is a more efficient use of roof space than PV.”¹¹ The PFM attributes much of the cause to the fact that natural gas prices fell significantly after adoption of the CSI Thermal program, yet the incentive levels were not adjusted to accommodate the steep reduction in gas prices.¹²

“In the first four years of the CSI-Thermal Program, incentives for natural gas residential installations have covered only 15%-19% of total installed costs. Incentives for multifamily/commercial installations have been 29%-41%,...”¹³

The CSI Thermal Incentive rates have largely produced disappointing results to date.¹⁴ As shown in Table 1¹⁵ attached to ORA’s comments, in SDG&E’s service territory, only 2% of the single family residential incentive budget has been allocated; in PG&E’s service territory only 3% of the single family residential incentive budget has been allocated, and in the service territory of SoCalGas, only 6% of the single family residential incentive budget has been allocated.

The adoption rates for commercial and multifamily installations have been significantly better, especially in SDG&E’s service territory, which has allocated 95% of its step one incentive

¹¹ PFM, p. 4.

¹² PFM, p. 4. “The CSI-Thermal Program was designed at a time when the price of natural gas to California consumers exceeded \$17 per thousand cubic feet. Since then, the price has mostly stayed between \$8 and \$11 per thousand cubic feet.” PFM, p. 5.

¹³ PFM, p. 5.

¹⁴ Incentives for the low-income CSI Thermal program have been higher (\$24.64 per therm for single family, \$19.23 per therm for multifamily) and have produced better results. In SDG&E’s service territory, 99% of the step one CSI Thermal low-income incentive budget had been allocated. In PG&E’s service territory 38% of the step one CSI Thermal low-income incentive budget has been allocated, and in the service territory of SoCalGas, 61% of the step one CSI Thermal low-income incentive budget has been allocated. The PFM recommends “that the Commission increase the incentive levels for the low-income subprogram” to maintain an added benefit for low-income communities. PFM, p. 9.

¹⁵ PG&E prepared Table 1 at the request of ORA using publicly available data from csithermal.com/tracker.

budget. In PG&E's service territory 52% of the multifamily and commercial incentive budget has been allocated, and in the service territory of SoCalGas, 42% of the multifamily and commercial incentive budget has been allocated.

According to the CSI Thermal Review, the CSI Thermal program would likely meet only about 20% of its installation goals at the current participation rates, and about 50% of its installation goals if installation rates increase by 50%. Given that the AB 1470's goal is to achieve CSI Thermal Savings by the end of 2017, ORA agrees that "significant increases in incentives are necessary to increase the likelihood that the market will grow at the required level to meet [CSI Thermal program] goals by 2017."¹⁶ Moreover, the Federal Investment Tax Credit is scheduled to decrease from 30% to 10% of the installed cost of the SWH system in January 2017. Adopting higher incentives now so that ratepayers could benefit from the 30% Federal Investment Tax Credit would increase the likelihood of accomplishing CSI Thermal program goals.

Although gas prices remain low, it is not prudent to expect current prices to last, especially given their slow increase over the past two years,¹⁷ the current need to rely on gas-fired plants to operate electric generators capable of managing the intermittency of many renewable resources, and the likelihood that the use of gas as a transportation fuel increases.¹⁸ ORA therefore agrees that the Commission should again raise initial incentives for the single family, multifamily and commercial hot water installations as the PFM recommends to promote increased market activity that will eventually lower prices, similar to the success of the CSI PV program.

B. The Commission should grant the PFM's request to implement a cap on the total amount of incentives for each solar pool heating installation and should create a specific budget for solar pool hearing projects.

The PFM also reports a serious problem with the current solar pool heating subprogram of CSI Thermal program.

"As of June 16, 2014, the Program had received 97 solar pool heating system incentive reservations. Of these, 56 percent result

¹⁶ PFM, p. 6.

¹⁷ PFM, Figure 1 at p. 6.

¹⁸ PFM, p. 5.

in incentives that cover 100% of system cost, and an additional 19 percent cover 75%-99% of project cost. Only 19 percent result in incentives that are less than 50% of project cost.”¹⁹

Based on these disturbing results, the PFM recommends that the Commission cap incentives for solar pool heating systems at 50% of the project cost. The PFM requests that the Commission “act swiftly” to stop the excessive payout of incentives. ORA supports this request. Ratepayer funded incentives should reduce, not eliminate, the cost of installation. A cap of 50% of the project’s cost appears to be a good starting point to support the CSI Thermal program’s goal of installing more solar pool heating systems without unfairly burdening non-participating ratepayers with excessive program costs.

ORA also supports the request to create a specific budget for solar pool heating systems so that solar pool heating installations do not deplete funds that could otherwise be used for multifamily and commercial SWH projects.

C. The Commission should adopt the proposed Tier 2 Advice Letter process to allow future incentive changes in a manner that effectively responds to market changes.

The PFM requests that the Commission authorize program administrators to request changes through Tier Two Advice Letters that would allow them to quickly respond to changing market dynamics.²⁰ The requested relief would allow program, administrators to propose changes to all PFM subprograms after consulting with staff of the Commission’s Energy Divisions. Requested changes would include lowering incentive amounts when demand is higher than anticipated, increasing incentives within subprogram steps, and shifting funds between program budgets. ORA supports the requested relief, which would allow program administrators to respond more quickly to changes in the market.

III. CONCLUSION

The Commission should grant the relief recommended in the PFM. The CSI Thermal Review observed that “underwhelming [SWH] program participation makes it unlikely to meet the goals the Legislature has set for the program, at the presently-allowed level of funding.”²¹

¹⁹ PFM, p. 18.

²⁰ PFM, p. 19.

²¹ CSI Thermal Review, p. 16

Increasing incentives for single family residential, multifamily housing, and commercial SWH systems, while at the same time placing a per installation limit on incentives for solar pool heating systems, should increase the likelihood that the CSI Thermal program will achieve its goals.

Respectfully submitted,

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