

PUBLIC UTILITIES COMMISSION
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October 18, 2007

California Energy Commission
Dockets Office
Re: Docket No. 07-SB-1
1516 Ninth Street, MS-4
Sacramento, CA 95814-5512

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DATE	OCT 18 2007
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SUBJECT: Comments on Committee Report on Senate Bill 1 Eligibility Requirements

The California Public Utilities Commission (CPUC) Energy Division staff is pleased to submit the following comments on the September 2007 *Draft Guidelines for California's Solar Electric Incentive Programs Pursuant to Senate Bill 1*. The CPUC launched our portion of the California Solar Initiative on January 1, 2007, and the program is off to a robust start. As of mid-September, our portion of CSI has over 5,000 applications for 160 MW of new solar installations, worth over \$320 million in solar rebates. In late September, we issued a Staff Progress Report on the solar program, which highlighted the significant program implementation work accomplished and lessons learned since the launch of the program. Our comments about the CEC's draft guidelines are based in large part on our experience to date with the program.

- 1. The CEC should clarify that the guidelines apply to the CPUC, and not the CPUC's three program administrators.** The CEC document sets forth guidelines for "program administrators" to implement their solar programs under SB1, including the CEC, the CPUC, and the publicly owned utilities. In the CPUC's program, we direct three "program administrators" (PG&E, CCSE, SCE) on how to implement the CPUC program. Since the CEC and the CPUC are using the same term – "program administrator" in 2 different ways—the guidelines could be misread to appear to be speaking directly to the CPUC's program administrators. The CEC should clarify that in all instances, the guidelines apply to the CPUC as the administrator of the CPUC portion of SB1, and that it is the CPUC's responsibility to direct its program administrators on how to implement the guidelines.
- 2. The CEC's guidelines would require that the CPUC program change from the incentive calculator we developed for the Expected Performance Based Buydown (EPBB) to the CEC's New Solar Homes Partnership (NSHP) incentive calculator, and we expect this change will cause a market disruption and require the CPUC to redo significant administrative work.** While we appreciate the CEC's efforts to promote consistency across all the solar incentive programs throughout the State, we do not believe that using one calculator for determining the incentives on small systems has been shown to provide benefits that exceed the costs of switching calculators. From a payment perspective, the two calculators have technical differences that lead to slightly different levels of incentive payment depending on the location and design of the solar system, and applicants might be receive a slightly higher or lower payment using one or the other. We understand the CEC may be looking more closely at the differences between the calculators, and we would appreciate reviewing the results of that analysis.

However, from a program administration perspective, switching calculators is a significant endeavor that will require retraining hundreds of installers and market participants. When our program launched in the beginning of 2007, we had to introduce hundreds of companies to our calculator via trainings throughout the state. Changing calculators will require significant CPUC staff effort, as well as expenditure of program administrator and consultant resources in order to retool many of the program tools, including handbook, database, trigger tracker, and outreach materials. The change would also require additional resources to conduct wide-scale outreach to market participants for retraining. Based on the changeover to the program at the beginning of 2007 and the feedback we received about how disruptive it was for the market to learn our new tools, we would expect that changing the calculator again in a few months would be equally disruptive.

The real question is whether the market disruption is worth the administrative costs associated with transitioning to the new calculator, and revamping all of the CSI administrative systems. The CPUC's incentive calculator is the product of a 2 year public process and the administrative cost to switching calculators includes months of staff and consultant time. Since the calculator only develops the incentive value for the smallest systems (ultimately, those under 30 kW), we do not expect that it will be worth disrupting the market to achieve a slightly different calculation methodology.

- a. **The CEC calculator allows well-designed systems to get paid more than the maximum allowable under the CPUC program.** The CEC calculator does not currently "cap the design factor at 1.0" meaning that if the system is optimally designed and located at a site more favorable to solar than the reference location, then the calculator would compute that such a system could receive greater than 1.0 times the incentive level available per watt. It is unclear whether the CEC will allow the CEC's uncapped Design Factor to change. We would face difficulty in implementing the CEC calculator unless the guidelines are modified to expressly allow the calculator to be modified for the CPUC's budgetary purposes. Accepting the CEC's design factor practice means that the CPUC would have to reopen decision-making for parties' comment, revise program budgets, and reallocate targets among program administrators. Moreover, allowing the design factor to surpass 1.0 would mean that budgets from the later steps would be shifted forward to enhance remuneration to the program's first applicants. In contrast, the CPUC and its parties opted to spread out budgets in a planned step-down in order to maximize the number of installations possible from the program budgets.
- b. **While the guidelines state that the NSHP calculator could be used "completely or partially" to demonstrate compliance with the guidelines, we remain concerned that using the CEC calculator unmodified could pose a problem if the CPUC decisions required some changes to the calculator.** In the SB1 report, it states that the NSHP calculator can be used "completely or partially" to demonstrate compliance with the requirements. (p.13). The statement implies that perhaps the CPUC could modify the CEC calculator to incorporate a few CPUC specific policy issues. However, Commissioner Geesman emphasized statewide consistency in his response to comments in the Oct 4th workshop, so it is unclear whether the CPUC could make minor modifications to the calculator to make it consistent with certain policy calls already made at the CPUC. For example, the CEC calculator uses a San Jose instead of Orange as a reference location. The CEC guidelines do not specifically mention San Jose as a

reference location. Therefore, it is unclear if the CPUC could adopt the CEC calculator and change the system reference location to Orange.

3. **The CEC guidelines would require that the CPUC use the CEC's recommended shading calculation methodology. The CPUC has been using the CEC's definition of "minimal shading" that is embodied in its calculation methodology since the beginning of 2007 and based on numerous problems during inspections and feedback from installers, the CPUC program has decided to change its shading approach.** The CEC's definition of minimal shading relies on multiple readings and inputs that are often difficult to obtain and hard to replicate during an inspection. The CPUC inspected all small systems for the first few months of the program, and found the largest discrepancy on reported shading, resulting in high error rates. Therefore, the CPUC program is moving to modify its method of calculating shading and its consideration of "minimal shading."
4. **The CEC guidelines propose overly aggressive energy efficiency requirements for existing commercial buildings (i.e. a 75 rating or better from the Energy Star Portfolio Manager benchmarking tool) and additional reporting requirements for residential buildings that add more transaction costs, administration, and time needed in the application process for questionable value.** The existing commercial building sector is heavily active in the CSI program overseen by the CPUC, and we are very concerned that the CEC's proposed requirements – to have all buildings undergo Energy Star benchmarking using the Portfolio Manager tool and obtain a score a rating of 75 or higher – will dampen the demand for solar in the sector that is most actively contributing to the CPUC's MW targets. To achieve the high score, many buildings would need to undergo retro commissioning and improve the facility up to a 75 score, before they could be eligible for a solar incentive. The CEC recommendation for residential applicants would require applicants undergo an energy audit, just as in the existing CPUC requirement. However, the CEC increases the required reports from utility to homeowner and vice versa, and therefore the transaction costs and timeframe for owners, installers, and administrators of meeting the requirement.
5. **The CEC guidelines appear to prevent the CPUC from distributing non-PV incentives authorized under SB1 by limiting the types of eligible equipment.** SB1 authorizes the CPUC to award up to \$100.8 million in solar incentives for electric-displacing non-PV technologies (specifically naming solar thermal categories).¹ In Decision (D.) 06-12-033, the CPUC found that non-PV solar projects that displace electricity should receive the same incentives as paid to PV projects. (D.06-12-033, p. 39.) The Commission ordered that incentives to non-PV projects would be paid as soon as CSI Program Handbook changes relating to estimation, measurement and metering of non-PV projects were adopted. The CPUC has received an Advice Letter to implement the non-PV portion of the CSI program, which is currently under consideration. The CEC report specifically prohibits water heating, space heating, and cooling, and it requires reliance on a CEC eligible equipment list. We recommend the guidelines be modified to accommodate the CPUC's mandate to pay non-PV solar projects in D.06-12-033, in keeping with SB1's authorization to fund non-PV technologies.
6. **The CEC guidelines prohibit self-installations of solar systems, which is a change from the CEC's previous policy under the ERP program and current CPUC guidelines.** The CPUC started the CSI program with a prohibition on self-installations and, after a large amount of

¹ PUC Code 2851 (b) "Notwithstanding subdivision (a), in implementing the California Solar Initiative, the commission may authorize the award of monetary incentives for solar thermal and solar water heating devices, in a total amount up to one hundred million eight hundred thousand dollars (\$100,800,000)."

feedback, the CPUC approved self-installs in September 2007 via Resolution E-4114. Self-installation applies to a very small number of systems, and the CPUC allowed self-installations because there are numerous safeguards that the systems are installed accurately. The CEC Emerging Renewables Program never prohibited self-installations.

7. **The CEC guidelines adopt Performance Monitoring and Reporting System (PMRS) requirements, but do not clarify if they will adopt upcoming CPUC direction on performance monitoring.** The term "Performance Monitoring and Reporting System (PMRS)" can imply a broad array of services, from ensuring data integrity to energy analysis services for host sites. The CPUC is currently considering a Petition to Modify a CPUC decision on its PMRS requirement due to stakeholder concerns that requiring independent PMRS services requires a costlier service contract that is beyond the scope of ensuring data integrity. The CEC guidelines are unclear whether the CEC will adopt the future CPUC direction for performance monitoring of PBI systems for incentive payment.

We look forward to continued collaboration with the Energy Commission staff on these guidelines.

Submitted By;



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