



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

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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)

**COMMENTS OF THE SOLAR ALLIANCE
ON ASSIGNED COMMISSIONER'S RULING**

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In accord with the July 9, 2010, Assigned Commissioner's Ruling in the above captioned proceeding,¹ the Solar Alliance² submits the following comments on proposed modifications to the California Solar Initiative (CSI) incentive mechanism established by Decision 06-08-028, and later modified by Decision 06-12-033.

I. INTRODUCTION

The July 9 ACR proposes three modifications to the incentive mechanism underlying the CSI program: (1) remove the discount rate built into the performance based incentive (PBI) payments; (2) reduce the differential incentive rates for government and non-profit applicants whether they receive PBI payments or an up front expected performance based buydown (EPBB) incentive; and (3) shift \$20 million in funds reserved in the program administrative budget to the incentive budget. The ACR states that "given the high participation rates in the CSI to date and

¹ See Assigned Commissioner's Ruling Requesting Comment on Modification to Decision 06-08-028 and Decision 06-12-033 Regarding the California Solar Initiative Incentive mechanism and Directing Temporary Postponement of Certain New Reservation Notices, R. 10-05-004 (July 9, 2010) (July 9 ACR)

² The comments contained in this filing represent the position of the Solar Alliance as an organization, but not necessarily the views of any particular member with respect to any issue.

in order to ensure the capacity of the solar energy systems installed through the program is consistent with the program's MW goals it may be necessary to make modification to certain aspects of the incentive mechanisms to maximize the effectiveness of the remaining CSI program budget."³ Moreover, the ACR provides for a temporary postponement of the issuance of confirmed reservations for certain new CSI applications while the Commission is considering modifications to the proposed incentive structure.

As will be illustrated below, the Solar Alliance submits that the Commission should be wary of modifying an incentive structure that has been in place for approximately four years and has resulted in a highly successful program and considerable progress towards the market transformation goals of the CSI. Changes to this structure could serve to curtail this progress, undoing some of this significant achievement. Accordingly, the Solar Alliance submits that the Commission should consider alternatives which would allow the current incentive structure to remain untouched, and carefully examine its statutory authority regarding allocation of total program costs. Importantly, however, the Commission must act expeditiously in order to minimize market disruption presently occurring a result of the postponing the issuance of confirmed reservations for certain CSI reservations.

II. THE CSI PROGRAM SHOULD CONTINUE WITH THE INCENTIVE LEVELS ORIGINALLY ADOPTED, AND THE REBATE LEVELS SHOULD NOT BE LOWERED

SB 1 has a total solar installation goal of 3,000 MW, which is the combined goal for solar programs by the Commission, the California Energy Commission, and municipal utilities. Based on the Commission's statutorily allocated share of the program budget, the Commission

³ See July 9 ACR at p. 7.

determined that its goal for the mainstream CSI incentive program should be 1750 MW.⁴ It is for the purpose of endeavoring to reach this goal that the July 9 ACR proposes changes to the current program incentive structure. The Solar Alliance cautions that placing the MW target above other program objectives could impair achievement of the Commission acknowledged ultimate purpose of the CSI – to assist in the establishment of a self sustaining solar industry that will play a major role in California’s transition to the use of renewable sources of energy.

Thus, in Decision 06-01-024 establishing the CSI program, the Commission emphasized the importance of the program as a means of market transformation specifically stating that:

Our decision today is informed by our view that a common sense program of monetary incentives, combined with technical assistance, could promote less expensive and more efficient technologies. We also approach our task here with the understanding that solar technologies may not be as cost-effective as other clean alternatives, in particular energy efficiency efforts and certain other renewable distributed generation technologies. However, a solar incentive program will aid California's transition to an affordable clean energy portfolio. We are convinced that a cost-effective and sustainable solar market is unlikely to develop without a commitment for market support that is both long-term and finite.⁵

Similarly, Senate Bill (SB) 1 acknowledges the resource acquisition goal for CSI, but further declares that it is the goal of the state “to establish a self-sufficient solar industry in which solar energy systems are a viable mainstream option for both homes and businesses in 10 years.”⁶

Evidence that the CSI program as currently structured is achieving this market transformation goal is rampant.

An example of this success is shown within the Lawrence Berkeley National Laboratory

⁴ See Decision 06-012-033, at p. 29

⁵ Decision 06-01-024, at pp. 4-5.

⁶ See Section 4 of SB 1 (Ch 132, Stats of 2006), which adds Section 25780(a) to the Public Resources Code.

(LBNL) report on state solar programs which offers evidence that the program's goal of creating the demand to drive scale and cost efficiencies is working.⁷ Thus, examining 37,000 systems across the U.S., the LBNL study, for example, found:

- Significant reductions (nearly 28%) in installed solar costs from 1998 to 2007;
- The most cost reductions to be in non-module factors (labor, marketing, overhead, balance of systems) - an indicator of state-level program success (state programs have larger impact on non-module costs than module pricing which is largely determined by global market forces); and
- California & New Jersey, the two states with the strongest solar incentive programs and largest solar markets, rank among the lowest-cost states.

Additional evidence of market transformation is found in the solar programs being implemented by the state's largest investor owned utilities:

- The Commission approved Southern California Edison's 500 MW utility-owned, distributed solar PV program to serve their RPS targets;⁸
- The Commission approved Pacific Gas and Electric Company's plan for 500 MW of utility-owned and third-party owned distributed solar PV;⁹ and
- The Commission recently issued a Proposed Decision approving a 52 MW program of utility-owned and third-party owned distributed solar PV for San Diego Gas & Electric.¹⁰

The introduction of these programs by the state's largest utilities lends itself to a number of conclusions. These programs would not have been announced if the utilities had not witnessed their customers' response to the opportunity to buy solar power under the CSI. The utilities would not have had the direct evidence of the growth in the delivery infrastructure, the reliability of PV delivery, the peak energy delivery benefits at the point of load, and the

⁷ *Tracking the Sun, The Installed Costs of Photovoltaics in the U.S. from 1998-2007*, Lawrence Berkeley National Laboratory, Ryan Wiser (February 2009) available at <http://eetd.lbl.gov/ea/emp/reports/lbnl-1516e.pdf>

⁸ See Decision 09-06-049.

⁹ See Decision 10-04-052.

¹⁰ See Proposed Decision of ALJ Ebke, A. 08-07-017 (July 13, 2010).

empirical cost reduction absent the creation of the CSI and proceeding programs. The utilities would not have had access to the forward pricing opportunities that underpin their incremental PV plans if the CSI had not created a climate for solar companies to operate and invest in California and develop relationships with the utilities. In other words, the CSI, *as currently structured*, has been the underpinning of this market transformation.

The Commission should be wary of disturbing the structure which has led to this success. The Commission's goal of 1750 MW, while laudable, is not statutorily prescribed. SB 1 established a goal – not a mandate. In allocating the 1750 MW between the three IOUs, the Commission did not order that each IOU meet its allocated share of the 1750, but merely set those amounts as “targets.”¹¹ While the Solar Alliance recognizes that failure to adjust the incentives may result in the program reaching its budget cap prior to achieving the 1750 MW goal, the Solar Alliance submits that such result is preferable to one which alters the current incentive structure as doing such could significantly impact the progression toward market transformation for which the program has been responsible.

In this regards, predictability has been a key component of the program and it is essential to its continued success. Adjustment of the incentive levels now will cause market “anxiety” as there will be a perceived risk that such levels could be adjusted again in the near future. Such uncertainty drives away not only new CSI entrants but also solar developers, financiers and manufacturers as the perceived support for solar projects and equipment is seen to be diminishing and risks to be increasing.

Moreover, as noted in the ACR, given the incredible success of the CSI program, the IOUs are rapidly moving through the declining 10 step trajectory for the incentive levels adopted

¹¹ Decision 06-01-024, Appendix B, Table 2.

in Decision 06-12-033. The declining incentive structure was premised on the assumption that solar prices would continue to decline each year, rendering the need for an incentive less important to the installation of solar. Thus, with an anticipated program length of 10 years, the Commission established ten incentive levels. At this juncture, however, PG&E has reached incentive level 8 for non residential customers and SCE has reached level 7. As originally structured, it was envisioned that these incentive levels, which are dramatically below the levels established for the first five levels of incentives, would not be reached until approximately 2013, when solar prices had declined even further. While solar prices have gone down significantly over the past couple of years, the decline has not been sufficient enough to eradicate the need for incentives at present. If the Commission were to further reduce the already extremely low incentives in the latter levels, interest in the CSI program will no doubt wane considerably as the installation of a solar system may no longer be cost effective.

Finally, the Commission should not overlook the importance which local governments and non-profit entities have had to the success of the CSI program, and the impact which the reduction in the incentive levels will have on their further participation. Many cities, counties and schools have installed solar systems on their facilities. Such installations have served to reduce their monthly electric costs and thereby assist in managing their budgets, which continue to be cut given the state's current financial crisis. A further reduction in the rebate levels will impact the ability of such entities to go forward with planned solar installations, possibly losing out on recent opportunities to receive federal assistance for such projects.¹² Indeed, a reduction

¹² For example, the 2009 American Recovery and Reinvestment Act provided for \$2.4 billion in funds for clean renewable energy bonds for financing, among other renewable projects, PV installations, by state, local, municipal, tribal governments and rural electric cooperatives. The new CREBs allocation totaling \$2.4 billion does not have a defined expiration date under the law; however, the recent IRS solicitation for new applications requires the bonds to be issued within 3 years after the applicant receives notification of an approved allocation.

at this time might hobble these government solar projects during a period of increased federal and media scrutiny over the results of the stimulus funds when cities and counties are trying to submit reports to prove how they used their federal assistance.

III. SOURCES ARE AVAILABLE WITHIN THE STATUTORILY PRESCRIBED CSI BUDGET TO MAINTAIN THE CURRENT INCENTIVE STRUCTURE

The total statutorily prescribed budget within which the Commission's CSI Program must operate is \$2.166 billion. Of this amount, however, the Commission has only allocated \$1.71 billion to direct incentives. The Commission has the authority to reallocate certain of the funds away from other budget categories for use for direct incentives thereby minimizing the need to reduce the current incentive structure.

For example, the statute does not prescribe the percentage budget allocation for administrative costs. The Commission determined that 10 percent of the budget should be allocated to administrative costs in Decision 06-01-024 prior to the enactment of SB 1.¹³ This ten percent allocation - or \$189.7 million- was reconfirmed in D. 06-12-023.¹⁴ Through the July 9 ACR, the Commission has proposed a reallocation of \$20 million in program administration funds to the incentive budget. While the Solar Alliance supports such reallocation, it submits that the Commission should examine the total dollars allocated to administration and how they have been expended to date and assess whether an additional amount can be reallocated from administration to incentives. For example, as noted in the July 9 ACR (p. 10), the Commission mandated the program administrators spend only half of the administrative budget, reserving the other half for program evaluation and marketing and outreach. Given the overwhelming interest

¹³ Decision 06-01-024, p. 8.

¹⁴ See Decision 06-12-033, Appendix A., Table 3. The administrative budget is calculated as 10% of the CPUC overall CSI budget net of the budgets for low-income incentives (\$216.68 million), Research Development and Demonstration (\$50 million), and the SDREO Pilot (\$3 million).

in the program, the need for additional marketing and outreach should be examined, and any budget savings transferred to incentive funding.

Similarly, while SB 1 provides that the Commission “shall not allocate more than fifty million dollars (\$50,000,000) to research, development, and demonstration that explores solar technologies and other distributed generation technologies that employ or could employ solar energy for generation or storage of electricity or to offset natural gas usage,” it does not require that the Commission allocate \$50 million to R&D. While the Commission made such budgetary allocation in Decision 06-12-033,¹⁵ it is not clear at this time whether such sizeable allocation is warranted.

At present, as part of the CSI RD&D program, the Commission has awarded eight grants, totaling up to \$9.3 million in funding, which focus on integration of PV into the utility grid. The Solar Alliance is aware that the Commission issued another CSI RD&D grant solicitation in November 2009, which focused on improved PV production technologies and innovative business models. Awardees of such grants are to be announced soon. Subsequent to the completion of this latter solicitation, the Commission should assess the funds remaining in the RD&D budget and determine whether the CSI program, and its market transformation goal, could be better served by a reallocation of certain of those funds to the incentive funding.

Finally, the Solar Alliance questions the ACR’s interpretation of the CSI budget cap established in SB 1. Specifically, the Solar Alliance questions the Commission’s conclusion that, due to the stated cap, any interest which is earned on the performance-based incentive payments waiting in escrow cannot be added to the total dollars spent on CSI.¹⁶ As drafted, the

¹⁵ Decision 06-12-033, p.28

¹⁶ See July 9 ACR at p. 7.

budgetary language of SB 1 provides that “[p]rograms under the supervision of the commission *funded by charges collected from customers* of San Diego Gas and Electric Company, Southern California Edison Company, and Pacific Gas and Electric Company shall not exceed two billion one hundred sixty-six million eight hundred thousand dollars (\$2,166,800,000).” In other words, the cost cap limits the monies that can be collected from ratepayers for use in the CSI. It does not prohibit the Commission adding to the CSI budget monies not collected from ratepayers – e.g., interest on PBI payments waiting in escrow.

IV. THE COMMISSION SHOULD DEPLOY OTHER TOOLS TO ENCOURAGE MW GOALS

The Solar Alliance would note that the proposal to reduce PBI incentives accelerates a discussion that would have emerged in any case and the current concern over the CSI budget provides the Commission an opportunity to deploy other tools to encourage the remaining 885 MWs of solar in the CSI program. These measures, which improve customer economics, yet do not require any additional CSI funding, include: (1) ensuring that tradeable renewable energy credits (TRECs) are available to provide an additional stream of income for system owners; (2) extending and expanding favorable tariffs, such as PG&E’s A-6 (Small General Time-of-Use Service), SCE’s TOU-D (Time of Use – Domestic) and SDG&E’s DG-R (Distributed Generation Renewable - Time Metered), to reflect the value of the energy provided by solar systems; and (3) encouraging larger systems by eliminating standby and other charges for behind-the-meter solar systems over 1 MW in size.

TRECs represent a potentially significant revenue stream for California solar system owners. The Commission’s final decision on the IOUs’ Petition for Modification of D.10-03-021 will determine whether TREC sales contribute to customer cash flows. Many system owners already take the opportunity to sell their RECs into the voluntary REC market but that

market is thin and illiquid. Prices are low and the revenue streams are neither significant nor sufficiently reliable to support project economics. A robust TREC compliance market, particularly one that created a demand for California-based solar RECs, would provide a significant and reliable economic stimulus.

Utility tariffs contribute significantly to the economics of solar systems. PG&E's A-6 tariff has allowed PG&E to consistently lead the other two utilities in the deployment of CSI systems despite offering identical PBI payments. By simply expanding and extending A-6 eligibility and ensuring that SCE's TOU-D and SDG&E's DG-R offer similar economic benefits, the Commission would take a very strong step forward in securing the 885 MWs represented in Steps 8, 9 and 10.

California's 1 MW limit on net metered solar systems has led to a predictable clustering of system sizes at the maximum size. Economies of scale for solar systems begin to have a significant impact at the 1 MW level as installers are able to spread their development, engineering and procurement costs over a larger project. While other states have allowed larger systems and reaped the benefits provided by economies of scale, California's solar market is trapped at an artificially low level set by the 1 MW net metering limit. Although it is possible under today's interconnection tariffs to install a system larger than a megawatt behind the meter, the portion above the 1 MW net metering limit is interconnected to the IOU system per Rule 21. The result is that the incremental generation (i.e., that above 1 MW) is subject to significant standby charges and potentially significant interconnection costs, even if all the generation is consumed on-site.

The Commission can improve the economics of systems larger than 1 MW, without using any CSI funds, by simply eliminating standby and other charges for non-exporting renewable

generation. A cap on distribution interconnection charges would provide customer certainty on development costs at, arguably, no real cost to the utility because of the distribution system benefits provided by the local generation. These “un-incented” systems would make a significant contribution to the Commission’s megawatt targets for CSI without any budgetary impact.

V. CONCLUSION

As illustrated above, maintaining the current incentive levels, even if such results in the CSI program’s inability to meet the targeted 1750 MWs, is critical to the CSI’s continued contribution to the transformation of the solar market into a self sustaining market. Moreover it is unclear that, given the Commission’s discretion over the allocation of the statutorily set CSI budget, maintenance of the current incentive levels will result in a reduction in the number of MWs achieved under the program. Finally, the Commission should use the opportunity afforded by the concern over the CSI budget to deploy other tools to encourage the remaining 885 MWs of solar in the CSI program.

Respectfully submitted this July 22, 2010 at San Francisco, California.

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By /s/ Jeanne B. Armstrong
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CERTIFICATE OF SERVICE

I, Melinda LaJaunie, certify that I have on this 4th day of August 2010 caused a copy of the foregoing

**COMMENTS OF SOLAR ALLIANCE ON ASSIGNED
COMMISSIONER'S RULING**

to be served on all known parties to A.10-05-004 listed on the most recently updated service list available on the California Public Utilities Commission website, via email to those listed with email and via U.S. mail to those without email service. I also caused courtesy copies to be hand-delivered as follows:

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I declare under penalty of perjury that the foregoing is true and correct. Executed this 4th day of August 2010 at San Francisco, California.

/s/ Melinda LaJaunie
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