Comments to the IEPR Committee of the California Energy Commission

In the Matter of:
2004 Integrated Energy Policy Report (IEPR) Update
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The California Solar Energy Industries Association (Cal SEIA) offers these comments in response to questions posed by the committee with regard to renewable distributed generation in Attachment A of the workshop held on June 8, 2004. These comments are reflective of comments offered orally at the hearing. We regret the lateness in submitting these comments.

1. How should state and local programs coordinated in terms of incentives? How formal or informal should this coordination be?

Local barriers to solar installation should be removed. There is a bill currently moving through the legislature, AB 2473 (Wolk) that seeks to achieve this objective by adopting statewide standards for the installation of solar, which is currently dealt with chiefly through local regulations, which vary between cities, unnecessarily driving up costs to consumers. These policies must be streamlined into a universal policy, while also requiring local governments to allow residents and businesses to install solar systems as a consumer right. Some cities and local planning entities impose restrictions on the public visibility of solar installations, thus oftentimes forcing customers to install solar in inefficient locations and suffer the loss of investment or simply forgo purchasing and installing solar altogether.

2a. In California, are we achieving program goals of bringing about cost reductions so that we are close to reaching the point in time where incentives are no longer necessary?

Incentive levels at both the CEC and CPUC have been appropriate over the last few years. Incentives are still required today, and will be required at an annually decreasing level for the next decade or so in order to gradually force down the cost of the technology and increase solar deployment in a measured and sustainable manner. Cal SEIA has proposed a schedule of declining incentives over time at both the CEC and the CPUC for the Emerging Renewable Program and the Self-Generation Incentive Program, respectively. It would be very premature and disastrous for the solar industry to make sudden radical changes to solar rebate levels and programs. If this were to occur, the state risks losing more than five hundred companies and approximately 4,000 jobs, solar infrastructure and local investment, as solar companies would shift investments and product development to more attractive and stable markets in, for example, the European Union and Japan.

It is our goal and estimation that , given a comprehensive program which includes: 1) a declining rebate schedule, 2) elimination of the current cap on net metering, 3) ownership of renewable attributes for the owner of the solar system, and 4) continued exemption from exit fees and standby charges, solar PV will be a commercially viable product absent the need for direct public subsidies at the end of the gradual decline in rebate levels. In the CEC program, for example, installed costs have already decreased roughly between 10 and 14% in 2003 compared to 2002. We believe that increased competition has contributed to this decline.

2b. What is the expected outlook in cost reductions for retail purchase of these DG systems?

CEC program data shows that solar system costs declined by between 10 and 14 percent from the 2002 to the 2003 program year, likely due in large part to increased competition. We have also seen that the cost of PV components on the global market declines by between 18 and 20 percent for each doubling of volume of PV shipments.

2c. What could be done to accelerate reduction in costs of renewable DG technologies? If additional funding is necessary to support renewable DG technologies as costs are declining, how much support should be provided and for how long? What would be the source of funding?

California's formula of a combination of rebates, tax credits, net energy metering, and customer responsibility surcharge (CRS) exemptions is the most successful in the nation for advancing solar PV. This framework is designed to combine ratepayer funded rebates or buydowns with private customer investment. The tiered approach to rebates in the SGIP reflects a clear understanding in the Commission that each DG technology has different requirements based on technology and fuel type.

However, significant cost reductions can only be achieved if the state is willing to implement a policy that guarantees at least a decade of regulatory and financial certainty. The "boom and bust" policymaking that has occurred over the last few years is actually contributing to freezing solar costs and must stop. The reason for lower costs in Germany and Japan is that these countries have adopted long-term solar policies.

The chief uncertainty has arisen because of the lack of availability of DG program data to the general public. In order to adequately address any of the issues surrounding state DG programs, there must first be the opportunity to analyze a full accounting of the state's programs to date. We thank the CEC for making their DG data available. Access to SGIP program data at the CPUC is restricted to only program administrators and utilities alone, which erodes confidence in the process and the analysis. Cal SEIA has recommended to the CPUC that this data be made available to a mutually acceptable third party, such as a national lab, to conduct a robust analysis and formulate recommendations for the continuation of the state's programs over time

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3. Should the state pursue a strategy similar to the German model of providing incentives to produce renewable DG, rather than incentives to install renewable generating systems? If so, how should such a performance-based incentive program be structured and funded? How would the state transition from the current incentive model, which is similar to the Japanese model, to a performance-based model similar to the German model?

Cal SEIA has recommended a performance-based incentive (PBI) pilot to the CEC and continues to support such an effort.

4. Germany and Japan are the world leaders in installing distributed PV generation systems, followed by California. What lessons can California learn from these successes?

The German and Japanese models are based upon their commitment to a sustainable, long-term solar policy. For example, the Japanese government adopted a goal of 5 gigawatts of solar by 2010 along with a rational schedule of declining rebates to achieve that goal.

5a. Should the caps or expectations on these policies be reexamined in light of the strong recent demand? What opportunities and problems would this be likely to create?

The current net metering cap of 0.5% of each utility's peak demand should be completely eliminated. This would encourage high-density, transmission-constrained communities such as San Diego, Oakland and San Francisco to invest in solar PV.

5b. What is the status of net metering in California? Which utilities are coming close to the cap? When do they expect to reach it? What policies are they planning to adopt once the cap is reached?

SDG&E will be the first to reach the net metering cap. It is Cal SEIA's understanding that there is currently a total of 12 MW of solar installation planned and completed in the SDG&E territory, where the net metering cap is about 20 MW. The City of San Diego has recently adopted a goal to increase its solar PV investment beyond current net metering levels. As the City of San Diego submitted in its presentation at the June 8th workshop, it is estimated that SDG&E will reach its net metering cap within the next two years.

5d. Should the state's solar tax credit be extended beyond 2005? If so, how should this credit be structured? Would passage of a federal tax credit affect continuation of a state tax credit?

Cal SEIA has actually assumed that the state tax credit would not be extended beyond 2005.

5e. Is there any near-term necessity to examine the exemption from CRS of some distributed renewable generation installations in light of the CRS caps?

Last year, the CPUC set a cap on CRS exemptions at a total of 3,000 MW of DG, half of which was set aside for DG technologies that meet the definition of ultra-clean and low-emission, pursuant to PU Code 353.2. Cal SEIA is not aware of any need to revisit this issue at this time.

6a. What should be the near-term and long-term goals for solar on new homes? Should the state establish numerical targets for these goals?

Cal SEIA believes that a goal that 50% of all new homes be constructed with solar is achievable in the 2009/2010 time frame. It is important to pursue this goal in the most cost-effective and environmentally sound manner possible, consistent with green building and zero-energy home and building goals. The order of priority should, thus, be energy efficiency first, followed by installation of solar thermal and PV systems.

6b. Should mandates, incentives, or some other strategy be used to foster solar on new homes?

Cal SEIA does not believe that a mandate on new homes is necessary to achieve this goal. We, as an industry, prefer to work with building industry and California's policymakers to develop a memorandum of understanding, backed by purchase orders for

new construction. All existing incentive mechanisms should be accessible for this purpose – rebates, net metering, ownership of renewable attributes, time-of-use rates, and exemptions from exit fees and standby charges – and should be streamlined.

6c. What are the opportunities and barriers to increasing the market penetration of solar systems on new homes in California?

The most significant barrier to any future solar opportunity is the depletion of incentive moneys at the CPUC and CEC. Other significant issues include the uncertainty surrounding ownership of renewable attributes, the restriction imposed by the net metering cap, and absence of time-of-use rates.

6d. To what extent would it be appropriate to modify California building codes to require new buildings to be solar ready? Should solar on new homes be mandated; if so, at what level, size or percentage? What are the consequences of having a mandate for solar on new homes? Under what circumstances should a PV system qualify for compliance credits in meeting the building energy efficiency standards? What are the consequences of such a credit?

*See answers to Questions 6a and 6b.

6e. What role can investor-owned utilities and municipal utilities play in delivering solar on new homes in their service areas?

Both the IOUs and the munis should continue to administer net metering programs, provide data for analysis of these programs and their impact on transmission and distribution systems to foster a reasoned analysis over time.

6f. What role can builders play in delivering solar on new homes to their customers?

Cal SEIA believes that the building industry could work with solar industry and develop a memorandum of understanding backed by purchase orders to gradually bring zero energy building principles to become a "standard feature" in all buildings over time.

6g. How should a program for solar on new homes be coordinated with existing incentive programs, if at all?

We recommend that the commission work with other state agencies providing incentive programs to create a "one stop shop" for energy efficiency, solar thermal and PV options to support the program for solar on new homes.