

**STATE OF CALIFORNIA
ENERGY RESOURCES CONSERVATION
AND DEVELOPMENT COMMISSION**

**In the Matter of the Design of the New Solar)
Homes Partnership)**

Docket No. 06-NSHP-1

**COMMENTS OF THE CLEAN ENERGY STATES ALLIANCE
ON STAFF WORKSHOP RE: SOLAR ON NEW RESIDENTIAL CONSTRUCTION**

These comments are submitted on behalf of the Clean Energy State Alliance (CESA) (electronically and by mail). The comments address two issues being examined by the California Energy Commission (CEC) regarding the New Homes Solar Partnership (NHSP) program: (1) consumer protection and (2) solar financing and its implications for the structure of the NHSP incentive approach.

CESA is a non-profit, multi-state coalition of state clean energy funds and programs working together to develop and promote clean energy technologies. CESA seeks to identify and address barriers to the development and growth of viable renewable energy resources in the United States. The California Energy Commission is a member of CESA.¹

• Third-Party Financing: Implications for State Incentive Program.

New financing options are increasingly available for solar PV energy. These solar finance structures have important implications for the design of state solar incentive and loan programs. For example, according to Lawrence Berkeley National Laboratory (LBNL), third-party financing options have made substantial inroads in the residential solar market segment, accounting for more than 20% of residential systems, and 30% of total systems, installed under the California Solar Initiative in 2010 (CSI 2011). See Sunshot Vision Study (2/2012) at 203.

Third-party financing options have proven popular with customers for three reasons: (1) they reduce or eliminate the up-front cost to the host; (2) they enable full and efficient use of federal tax incentives; and (3) system operations and maintenance are the responsibility of the third-party owner in the case of solar service contracts. Id. Third-party equity is tapped to finance these projects and monetize credits and losses. While monetization provides a benefit, it also comes at a cost, as tax equity is an expensive form of capital relative to the project-level debt that it replaces.² It is also important to note that the federal investment tax credit is due to revert to 10% from 30% in 2017; this will reduce the benefit of third-party financing to investors and has implications for state incentive design in the post-2017 timeframe.

¹ While these comments express the views of CESA as an organization, it does not necessarily represent the official position of any individual state that is a member of CESA.

² In a recent Bloomberg New Energy Finance Study (June 2012), interviews with tax equity investors for solar PV indicated that, for the risk involved, the yields have been exceptional.

Today, however, third-party financing arguably reduces the need for state and local loan programs and incentives targeted at PV, potentially enabling states to adjust their existing loan and incentive programs to more impactful purposes. Alternatively, states may want to consider adjusting their loan programs to complement, rather than compete with third-party financing and ownership programs. For example, Connecticut has begun to use credit enhancements for lower income households in order to enable them to qualify for third-party-owned solar offerings. Also, the inequality in federal incentives provided to third-party-owned versus host-owned systems may suggest that state incentive programs should begin to provide different incentive levels based on system ownership in an attempt to level the playing field. The DOE Sunshot Program, and LBNL, will be analyzing these issues in 2013-2014 timeframe, and the analysis should provide states with better information upon which to make changes to their standard loan and incentive programs.

However, there are several steps that state PV programs can implement now to advance solar deployment and drive cost reductions.

First, states can take concrete steps to foster further participation by more investors in the tax equity space, creating competition, and reducing the cost of capital and financing. For example, states can facilitate development of standards in the residential and commercial-scale markets for payments and services in the third-party financing sector. The numerous third-party financiers today have different power purchase agreement (PPA) and lease contracts, and credit quality and maintenance standards. Without standard PPA and lease agreements throughout the sector, it is difficult to rate and issue solar securities. Therefore, states, like California, should consider developing, and leveraging through their solar incentive eligibility rules, clear standards for third-party finance payments and services. This should help to protect consumers, increase liquidity of the investment vehicles, and reduce financing costs.

Second, states should require disclosure by third-party financiers of the finance charges, payments, and other services involved in each transaction, similar to requirements for car leasing and home mortgages. Again, incentive eligibility should be based on this “truth-in-leasing” disclosure requirement.

Third, states should consider continuing support for low-interest loan program offerings for solar PV. There are two reasons for this. First, as noted, the federal investment tax credit is due to revert from 30% to 10% in 2017 and this will reduce the benefit of third-party financing to investors and the amount of tax equity available for solar projects (in addition, solar energy will need to compete with other renewable energy technologies for this available tax equity). Second, third-party financing does add a cost to solar installations (as much as 40 to 50 cents per watt, according to one of the players in this industry), while direct ownership offers an array of benefits not usually available to third-party finance, such as locked-in payments, appreciation to the home, and ownership right to alter or move.

- **Consumer Protection**

In examining whether the NHSP program is using the most effective consumer protection measures, it is important first to identify and understand if there are significant performance problems occurring, and what the specific nature of those problems is. For example, what are the major risks that investors, installers, and consumers are experiencing in the California solar market – equipment risk, performance risk, and/or business risks – and what is the best mechanism to reduce those risks.

CEC already has some of the most stringent consumer protection requirements of any state for solar PV systems (for example, requiring warranties of not less than 10 years for all solar systems, a minimum 10 year warranty for contractors to provide no cost repair and replacement of the system for any expense not otherwise covered by the manufacturer, and a minimum 10 year warranty to protect the purchaser against more than a 15% degradation of generation output).

To build on California's current approaches, a good resource for CEC to review on the various consumer protection and performance measures being used by state PV programs across the country is LBNL's 2007 Study: *Designing PV Incentive Programs to Promote Performance: A Review of Current Practice*. For example, the LBNL study notes that three state solar programs require that installers provide distinct warranties for installation service, for either one or two years. CEC may want to consider whether this distinct installation warranty is needed for the NHSP.

Thank you for considering these comments.

Respectfully submitted,



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