



California Legislature
Senate Energy, Utilities and Communications Committee

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**INFORMATIONAL HEARING
REVIEW OF THE CALIFORNIA SOLAR INITIATIVE**

**State Capitol, Room 3191
February 12, 2008
1:00 p.m. – 4:00 p.m.**

I. Welcome

II. Introduction

- Senator Christine Kehoe, Chairwoman
Senate Energy, Utilities & Communications Committee

III. Panel One: State Entities

- [Jackalyne Pfannenstiel](#)
California Energy Commission
- [Sean Gallagher](#)
California Public Utilities Commission
- [Aaron Johnson](#) [Table One](#): Subsidies & Incentives for
CA Distributed Solar
Division of Ratepayer Advocates [Table Two](#): Estimated Costs of
Generation Resource Options

IV. Panel Two: Solar Advocates

- [Tasha Wright](#)
City of Santa Rosa
- [Sue Kateley](#)
California Solar Energy Industries Association
- [Sara Birmingham](#)
Solar Alliance
- [Bernadette Del Chiaro](#)
Environment California

V. Panel Three: Program Administrators

- [Andrew McAllister](#)
California Center for Sustainable Energy
- [David Bruder](#)
Southern California Edison
- [David Rubin](#)
Pacific Gas and Electric Company

VI. Panel Four: Municipal Utilities

- [Bret Barrow](#)
California Municipal Utility Association
- [Manny Robledo](#)
Southern California Public Power Authority

VII. Public Testimony

[Bill Brobeck](#)
Brobeck Solar Energy

[Marty Roberts](#)
Solar Sevastopol



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THE CALIFORNIA SOLAR INITIATIVE: BACKGROUND

Overview

The state of California began providing incentives for solar energy systems since 1976. In recent years the state programs providing subsidies for the solar industry have grown and become more comprehensive. This expanded interest in solar peaked in August of 2004 when the Governor announced his Million Solar Roofs Program. Under this program, which was formalized under SB 1 (Murray, Chapter 132, Statutes of 2006), the California Public Utilities Commission (CPUC) and the California Energy Commission (CEC) were charged with developing the solar photovoltaic (PV) program for the state, which was called the California Solar Initiative (CSI).

The CSI has three main goals:

- To create 3,000 MW of new solar PV capacity by 2017
- To establish a self-sufficient, non-subsidized solar industry in which solar PV systems are a viable mainstream option in 10 years
- To place solar electric systems on 50 percent of new homes in 13 years

The CSI program is funded using \$3.3 billion from electric customers over a period of 10 years. The program has three main components:

- The CPUC directs solar electric incentives to customers in investor-owned utility territories for existing homes and existing and new commercial installations (1,940 MW);
- The CEC is responsible for encouraging solar electric systems in new home construction (New Solar Homes Partnership) (360 MW);
- The municipal utilities will offer an equivalent PV incentive program within their service territories (660 MW).

The CPUC's CSI Program

The CPUC's CSI Program provides rebates for solar PV installations. These rebates were initially \$2.50/kw for residential installations, or about 25% of the cost. As the program ramps up and the installed solar capacity increases, these

rebates decline so that at the end of 10 years the rebate is zero. This rebate, known as the Expected Performance Based Buydown (EPBB) takes into account the expected performance of the solar system, accounting for system orientation and equipment ratings. To ensure equity for ratepayers supporting this program, the CPUC divided the overall goal of 1,940 MW by utility and by customer class (e.g. residential and non-residential). For large non-residential customers the rebate is based on the performance of the solar system rather than the size of the system. This Performance Based Incentive (PBI) provides rebates to the customer of between \$0.30/kwh and \$0.60/kwh for five years, depending on the type of customer.

The CPUC has designated three program administrators who oversee the incentive program: PG&E, Southern California Edison, and California Center for Sustainable Energy (CCSE). They are responsible for collecting and reviewing applications and giving out the rebates.

From January 1 through December 31, 2007, the CSI program has received 7,541 viable applications, worth \$558 million in incentives (208.6 MW of new solar). Of these, 6,712 were residential applications (89% of the total applications; 15% of the total MW) and 829 were non-residential applications from commercial, government, and non-profit applicants (11% of the total applications; 176.8 MW).

The CSI has a separate low income program, created by AB 2723 (Pavley, Chapter 864, Statutes of 2006) which sets aside 10% of the CPUC's CSI funding. The details of this program have only recently been finalized by the CPUC. The CSI also establishes a pilot solar water heating program administered by the CCSE. This program has only recently come into existence.

New Solar Homes Partnership

The CEC manages solar PV incentives for new residential construction, a program called the New Solar Homes Partnership (NSHP). The goal of the NSHP is to install 400 MW of solar electric capacity on new homes in California by 2016. The CEC will be turning the NSHP over to the electric utilities or a third-party administrator within the next few days.

The NSHP program provides two incentive structures, one for conventional housing and another for qualified affordable housing projects. Of the overall 400 MW goal for the entire NSHP program, 36 MW will be made available for new affordable housing during the ten year program. For market-rate housing there

are two incentive levels, the Base Incentive, and Production Housing with solar as a standard feature incentive. The Base Incentive generally applies to custom homes and small developments. In January 2007, the Base Incentive amount

was initially set at \$2.50/watt. The Production Housing incentive is based on the reference system and initially receives \$2.60/watt. These incentive levels decline when a specified cumulative MW volume of reservations, in terms of total-program capacity, has been reached. The incentives for the affordable housing program also decline as MW are reserved. The incentive at the initial step of the program is set at \$3.50/watt. To date the CEC has received 98 applications for the NSHP, 35 of which are affordable housing projects.

Municipal Utility Programs

Under SB 1, the municipal utilities are required to establish solar programs of their own (municipal utilities are publicly owned and are not subject to the CPUC's programmatic requirements). Every municipal utility is independently run and operated so each solar program varies. All of the programs provide incentives for solar installations which decline over a period of time, though the incentive level varies from \$2.50/watt for residential PV installation to as much as \$5/watt for residential PV.