

## DOCKETED

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[PUC](#) > [Energy](#) > [California Solar Initiative](#) > About the California Solar Initiative

## About the California Solar Initiative

The California Solar Initiative (CSI) is overseen by the California Public Utilities Commission (CPUC) and provides incentives for solar system installations to customers of the state's three investor-owned utilities (IOUs): Pacific Gas and Electric Company (PG&E), Southern California Edison (SCE) and San Diego Gas and Electric (SDG&E). The CSI Program provides upfront incentives for solar systems installed on existing residential homes, as well as existing and new commercial, industrial, government, non-profit, and agricultural properties within the service territories of the IOUs.

The CSI Program expanded state support for solar technology and is the product of Governor Schwarzenegger's "Million Solar Roofs" vision for the State of California. The CSI Program was authorized by the CPUC through a number of regulatory decisions throughout 2006. In addition, the legislature expressly authorized the CPUC to create the California Solar Initiative in 2006 in Senate Bill 1 (Murray). When it launched in January 2007, the CSI Program built upon nearly 10 years of state support for solar, including other incentive programs such as the Emerging Renewables Program (ERP) and the Self-Generation Incentive Program (SGIP). Both the SGIP and ERP programs still provide incentives for other energy technologies, but no longer support investments in distributed solar.

### CSI Program Components

The CSI Program has a budget of \$2.167 billion over 10 years, and the goal is to reach 1,940 MW of installed solar capacity by the end of 2016. The goal includes 1,750 MW of capacity from the general market program, as well as 190 MW of capacity from the low income programs. The general market program is the main incentive program component of the CSI, and is administered through three Program Administrators: PG&E, SCE, and California Center for Sustainable Energy (CCSE) in SDG&E territory.

In addition to the general market program, the CSI Program has four other program components, each with their own program administrator and 10 year budgets:

- A [research and development \(RD&D\) program](#), providing grants to solar technologies that can advance the overall goals of the CSI Program; the RD&D program is administered through the RD&D Program [Manager](#), Itron, and has a budget of \$50 million.
- The [Single-family Affordable Solar Homes \(SASH\) Program](#), providing solar incentives to single family low income housing; the SASH program is administered through the SASH Program [Manager](#), GRID [Alternatives](#), and has a budget of \$108 million.
- The [Multifamily Affordable Solar Housing \(MASH\) program](#), providing solar incentives to multifamily low income housing; the MASH program is administered through the same Program Administrators as the general market program: PG&E, SCE, and CCSE, and it has a budget of \$108 million.
- The [CSI-Thermal Program](#), providing incentives for solar water heating and other solar thermal technologies to residential and commercial customers of PG&E, SCE, SoCal Gas, and SDG&E..

In addition to the CPUC's CSI Program, Senate Bill 1 envisioned that the State of California would also have other programs to support onsite solar projects, including the [California Energy Commission's New Solar Homes Partnership \(NSHP\)](#), and a variety of solar programs offered through publicly owned utilities (POU). The statewide effort includes the CSI – as well as the NSHP and the POU programs – and it is known collectively as [Go Solar California](#). The statewide goal of the Go Solar California campaign is 3,000 MW and there is a statewide budget of \$3.3 billion. The CSI Program is a subset of the wider solar effort in California.

**Table 1. Go Solar California Campaign by Program Component, 2007-2016**

<b>Program Name</b>	<b>California Solar Initiative (CSI)</b>	<b>New Solar Homes Partnership (NSHP)</b>	<b>Various Names</b>
<b>Program Authority</b>	California Public Utilities Commission	California Energy Commission	Publicly Owned Utilities
<b>Budget</b>	\$2,167 million	\$400 million	\$784 million
<b>Solar Goals (MW)</b>	1,940 MW	360 MW	700 MW
<b>Scope</b>	All systems in IOU areas except new homes	New homes, IOU territories	All systems in POU areas
<b>Began</b>	January 2007	January 2007	January 2008

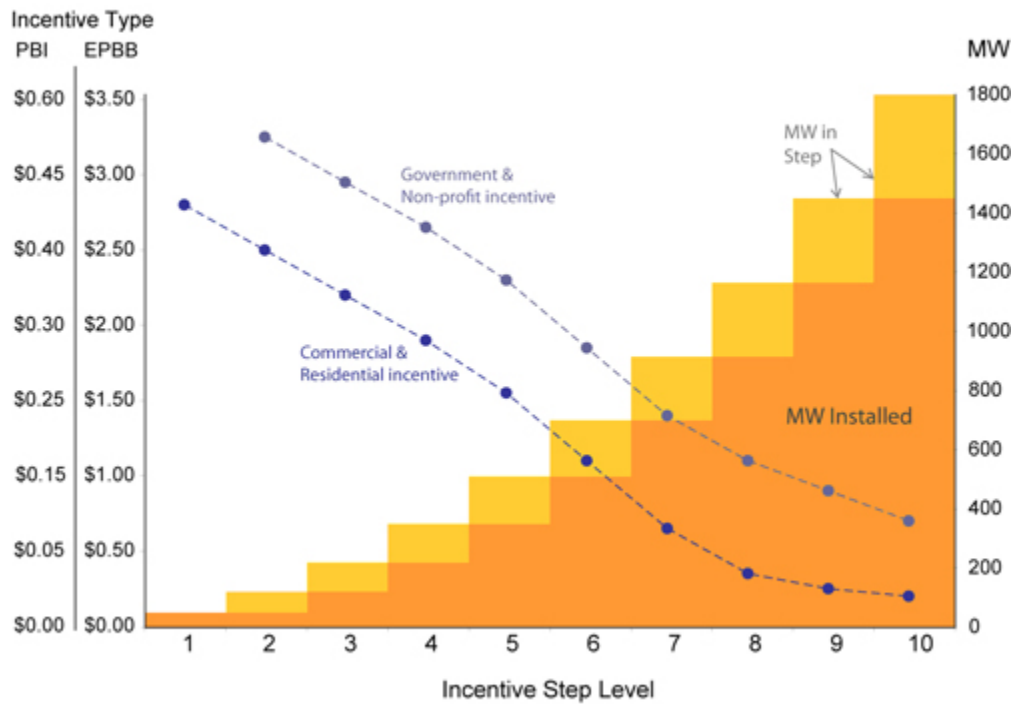
## Solar Incentive Level Design

The CSI Program is designed to be responsive to economies of scale in the California solar market – as the solar market grows, it is expected solar system costs will drop and incentives offered through the program decline. The CPUC divided the overall megawatt goal for the incentive program into 10 programmatic incentive level steps, and assigned a target amount of capacity in each step to receive an incentive based on dollars per-watt or cents per-kilowatt-hour. The MW targets in each incentive step level are assigned to particular customer classes (residential, commercial, and government / non-profit) and allocated across the three IOU service territories, in proportion with each group's contribution to overall state electricity sales.

Once all the MW targets in a particular incentive step level are reserved via CSI application, which can occur at different times for each customer class in each utility service territory, the incentive level offered by the CSI Program automatically reduces to the next lower incentive step level. This creates a demand-driven incentive program that adjusts solar incentive levels based on local solar market conditions.

Figure 1 below shows how CSI incentives decline as the program progresses through the 10 steps and more MWs are installed. The CSI incentive levels have declined by customer class and utility, from January 2007 to the present. See the [CSI Trigger Tracker](#) for currently applicable step levels.

### Figure 1. Overview of the CSI Step Level Changes



PBI: Performance Based Incentive, paid over 5 years, in ¢ / kWh  
 EPBB: Expected Performance Based Buydown, paid upfront, in \$ / W

## Incentive Types

The CSI Program pays solar consumers their incentive either all at once for smaller systems or over the course of five years for larger systems. Smaller systems receive an upfront, capacity-based incentive that is adjusted based on expected system performance, called the Expected Performance-Based Buy-down (EPBB). Larger systems receive incentives based on their actual performance over the course of five years, called the Performance Based Incentive (PBI). These two incentive tracks are explained in more detail in the Table below.

**Table 2. CSI Incentive Types**

Expected Performance-Based Buydown (EPBB)
(Paid in dollars / Watt)
Intended for residential and small business customers
Systems less than 50 kW
Incentive paid per watt based on your system's expected performance (factors include CEC-AC rating, location, orientation and shading)
One-time, lump sum upfront payment
Performance-Based Incentive (PBI)
(Paid in cents / kWh)
Ideal for large commercial, government and non-profit customers
Mandatory for all systems 50 kW and greater Systems less than 50 kW can opt-in to PBI
Incentive paid based on the actual energy produced by your solar system, measured in kilowatt-hours
60 monthly payments over five years