

Solar Water Heating Pilot Program

Part of the California Solar Initiative (CSI)

Helping lower the cost of solar energy systems

Solar Water Heating Facts

- > Enough sunlight reaches the earth's surface each year to create approximately 1000 times the amount of energy produced by burning all fossil fuels mined and extracted during that same year.
- > Solar energy is pollution-free.
- > Solar Water Heating (SWH) systems in use in the US today produce as much energy as seven medium-sized coal-fired power plants.
- > More than 1.7 million Americans have invested in SWH systems for their homes and businesses.
- > 94% of SWH owners consider their investment a wise decision.
- > SWH performance and quality warranties in many cases exceed the guarantees of other household appliances.
- > SWH systems are more affordable than photovoltaics. Both systems can be part of your strategy for a zero-energy home.*
- > The life cycle cost of using a SWH system to heat water is lower than using gas and electricity at current prices. Federal tax credits are also available.
- > Sunlight does not have to be explored, mined, extracted, transported, combusted, transmitted — or imported.

* Zero energy homes produce as much or more energy on site as they consume from the utility company.

Sources: US Dept. of Energy <http://www.eere.energy.gov/>
Solar Energy Industries Association: www.seia.org

About Us

The California Center for Sustainable Energy (CCSE) is a nonprofit 501(c)3 corporation that implements programs, provides information and fosters public policies to facilitate the adoption of clean, renewable, sustainable and efficient energy technologies and practices. CCSE is the region's independent voice on energy issues and a trusted resource for business, consumers, public agencies and local governments.

CCSE manages the ratepayer-funded Energy Resource Center (ERC). The ERC offers information, education, and technical assistance to the public through technical displays, demonstrations, free workshops and online resources. The ERC also features a diagnostic tool and resource lending library. Those interested in learning more may visit the ERC, attend a workshop or ask advice from one of our energy engineers.

Looking for a qualified, licensed contractor to install your solar water heater? CCSE's online vendor database can help. The CCSE Web site offers a wealth of information for citizens and businesses looking to help with energy efficiency programs, practices and policies. Kick-start your own sustainable energy future at www.energycenter.org.



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Go Solar California!

The Solar Water Heater Pilot Program is brought to you by the California Solar Initiative, a partnership between the State of California's Public Utilities Commission and the California Center for Sustainable Energy (CCSE). For information on this and other California Solar Initiative Programs, please visit www.gosolarcalifornia.ca.gov or www.energycenter.org.



www.energycenter.org

Solar Water Heating Pilot Program

As part of the California Solar Initiative, the Solar Water Heating Pilot Program will provide incentives to customers who install qualifying solar water heating systems.

IN CALIFORNIA, ABOUT 40% OF NATURAL GAS USED TO HEAT WATER COULD BE SAVED THROUGH THE USE OF CLEAN, RENEWABLE SOLAR WATER HEATING SYSTEMS.

In addition to financial and energy savings, reducing greenhouse gas emissions benefits everyone. Solar Water Heating (SWH) systems can help protect consumers against future gas and electricity shortages as well as price increases. They help preserve the environment by avoiding carbon dioxide emissions and reducing harmful pollutants. The California Center for Sustainable Energy (CCSE) has been awarded \$1.5 million to provide incentives for SWH installations in San Diego.

California residents in San Diego Gas and Electric (SDG&E) service territory have a unique opportunity available to them. By participating in the CCSE's San Diego Solar Water Heating Pilot Program, residential and non-residential SDG&E customers will be eligible for incentives for installing qualifying solar water heating systems. Customers participating in the SWH Pilot Program will be able to reduce their carbon footprint in a state that is currently the 9th largest emitter of greenhouse gases in the world.

Solar Water Heating systems convert the sun's energy to heat and can be used to offset loads typically provided by natural gas and electricity. This clean, renewable source of energy will help reduce gas and electric consumption, avoid combustion-related emissions, and potentially reduce the need for new fossil fuel infrastructure.

SWH systems are ready for prime time

The CCSE Web site provides up-to-date information on solar water heating technology and applications. It maintains and provides public lists of licensed installers who are trained to fulfill installation and incentive requests. The site provides objective information on cost effectiveness, reliability, and safety of SWH systems.

Who is eligible?

Program participation is limited to residential, commercial, and industrial customers of SDG&E. Customers must provide their SDG&E billing data, and allow their system to be monitored.

How much is the incentive?

- For residential systems, the maximum incentive is \$1500 and depends on the system itself and the installation details.
- For larger systems, the incentive is a function of collector area:
 - \$15/sq ft for open-loop systems
 - \$20/sq ft for closed-loop systems
 - Pool and spa heating systems are not eligible

How do I participate?

Customers must install a SWH system that offsets energy used by an existing gas or electric water heater or boiler.

How do I install a SWH system?

All systems must be installed by a CA licensed contractor or self-installed by the system owner. Self-installers are not required to be licensed but a building permit is required. Contractors and self-installers must attend a one-day workshop held by CCSE in order to collect incentives.

How do I shop for the best system?

- Compare systems on an energy saved versus cost basis
- Seek experienced contractors
- Seek appropriate freeze protection for your climate zone

What are the financial benefits?

CCSE will pay incentives totalling \$1.5 million to installers and contractors. Systems must first pass a rigorous inspection to guarantee proper functionality prior to the incentive payment. Withholding the incentive until the system performs as designed serves as motivation for the installer to do the job correctly. It is expected that the incentive paid to the installer will be reflected in the customer's purchase price. The installer must disclose the incentive amount to the customer.

How do I know how much money and energy I'll save?

Typical savings are between 40 and 60 percent. A portion of systems will be metered for at least a year after installation. This metered data will be used to evaluate system performance, energy savings and appropriateness of the incentive structures.

How long will my system last?

A minimum warranty of ten years for collectors, five years for other equipment and one year for labor is required. To ensure a long life for your SWH, CCSE will verify that the contractor/installers provide the customer with a detailed operation and maintenance manual. The manual will explain system design and operation, include a maintenance schedule, a sequence of operations for system shutdown, warranty information and contact information for follow-on service.

I heard that Solar Water Heaters leak and break easily.

Quality installation is the key to a reliable, trouble-free system. All participating contractors must be licensed and insured, and must receive specific additional training from CCSE.

How do I apply?

Your contractor will have the necessary forms, and will fill them out together with you. They are also available on our SWH Pilot Program Web site which can be found at www.swh.energycenter.org.

\$1.5m

Through the California Solar Initiative (CSI), the California Public Utilities Commission (CPUC) authorized CCSE to use \$1.5 million in rate payer funds to use as incentives for the Solar Water Heating Pilot Program. These incentives will go to licensed contractors to promote the installation of clean, renewable solar water heating systems.

