



Solar Thermal Water Heating

No-Cost Water Heating Upgrade

Do you own or manage a multifamily building with central water heating?

The California Solar Initiative – Thermal Program provides energy saving solar water heating systems at no cost to qualifying PG&E, SoCalGas, and SDG&E customers.

Benefits of Participation

The CPUC's CSI-Thermal Program, administered by California's gas utility companies, provides the following benefits:

- a. **Permanent savings on your gas bill**
Studies have shown that installing solar thermal systems on multifamily apartment buildings can permanently reduce natural gas use up to 60%.
- b. **Equipment life and maintenance benefits**
Not only does solar thermal save you energy, it also decreases wear and tear on your water heating system. Preheating the cold water using the sun means that your boiler or water heater fires less often and does less work.
- c. **Reduce greenhouse gas emissions**
A study by the National Renewable Energy Laboratory indicates the technical potential energy savings associated with solar water heating could exceed 100 trillion BTU of natural gas within California alone. The NREL also found that solar water heating is the best available technology for reducing the greenhouse gas impacts of heating water.¹

¹ P. Denholm, et al., The Technical Potential of Solar Water Heating to Reduce Fossil Fuel Use and Greenhouse Gas Emissions in the United States. National Renewable Energy Laboratory, NREL/TP-640-41157 (March 2007).



TurnKey, No Cost Installation

Participation is simple and convenient for property managers and owners.

1. **Inspection:** Allow Evolution to inspect your property. We will get data necessary to model the optimal system for you.
2. **Agreement:** Sign an agreement with Evolution, showing that the system will be no-cost to you.
3. **Reservation Form:** The gas companies will generate a reservation form for your signature. This will reserve funds for up to 18 months.
4. **Permitting:** Evolution will pull permits, install the system, and coordinate with on-site staff.
5. **Reservation Assignment:** After they permit is finalised, you sign a form assigning the rebate to Evolution.

How Does a Solar Thermal Water Heating System Work?

There are several types of solar water heating systems. Evolution designs and builds low maintenance drainback systems. Solar collectors are placed on your roof.

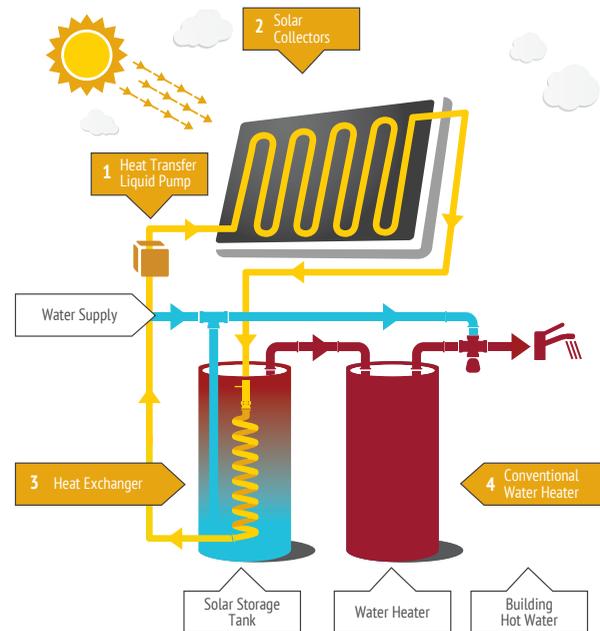
Heat transfer fluid circulates through the collectors and is stored in a tank at a temperature up to 180 degrees. Your potable water is routed through a heat exchanger to pick up this energy.

This means that you use less energy to heat your water in the conventional tank, since it was already delivered hot from the solar water tank. The system doesn't replace your existing boiler, it supplements it.

Program Eligibility Requirements

To be eligible for the program, your property must meet the following criteria:

- The building(s) must be multifamily.
- The energy used to heat and circulate hot water must be purchased from PG&E, SoCalGas, or SDG&E. You must have a utility natural gas bill tied to the property.
- The building must have at least one central water heating system.
- Each central hot water system must serve 10 apartments, and you need 20 apartments total.
- If your building is smaller than 20 units, call Evolution for details.



- 1** A pump circulates a transfer liquid from the tank to the roof.
- 2** Solar collectors absorb the sun's thermal energy and heat the transfer liquid.
- 3** The transfer liquid enters a heat exchanger, warming the tank.
- 4** Hot water flows to your existing boiler or water heater, which provides backup heating when the sun isn't shining.

How To Participate

For more information about a no-cost solar hot water system, and to get more details about an inspection and participation in the program, contact:

Evolution Building Efficiency
(866) 495-2734
www.evo-llc.com
info@evo-llc.com



California consumers are not obligated to purchase any full fee service or other service not funded by this Program. This Program is funded by California utility ratepayers under the auspices of the California Public Utilities Commission (CPUC).

Evolution Energy Solutions, LLC, CSLB #995016.
SoCal: 960 Monterey Pass Road, Monterey Park, CA 91754.
NorCal: 10802 Bigge St., San Leandro, CA 94577.
(866) 615-8429 // info@evo-llc.com // www.evo-llc.com