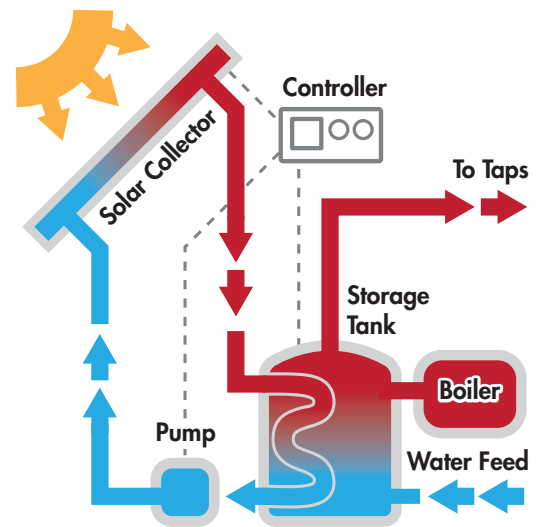


# Multi-Family Solar Water Heating

Are you a multi-family property owner who wants the green benefits of saving money and using renewable energy in your building? Check out Solar Water Heating...

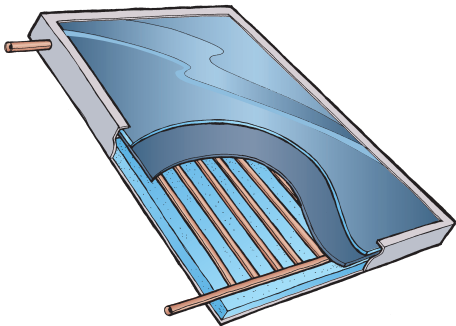
## HOW SOLAR WATER HEATING WORKS

A solar water heating system is a simple and reliable energy source for your multi-family property. Sized to fit the location's needs, solar collectors are mounted on a south facing sloped or flat roof. Fluid (water or glycol) flows through the panel and is heated by the sun. It then runs to a solar storage tank connected to your existing hot water heater. Your water heater only turns on if the solar-heated water still needs a temperature boost. Hot water flows out of your taps just like it always has, but your hot water heating bill could be cut 60-80%. You will also reduce greenhouse gas and other air polluting emissions! Hot water can account for up to a third of a residential building's gas bills, so solar water heating is a great way to address rising utility costs.



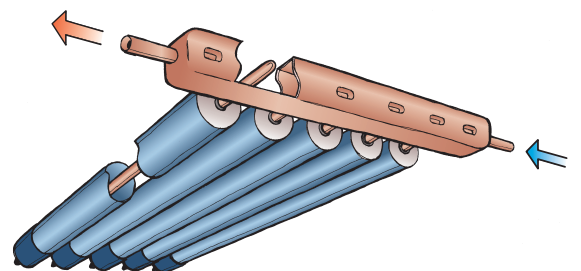
## SOLAR COLLECTOR TYPES

There are two basic types of rooftop solar collectors.



**Flat-plate collectors** contain a working fluid (water or a water-glycol mix) that flows through tubes in the collector, is heated directly by the sun, and carries that heat to the hot water storage tank. The dark glass covering and insulated backing are specially designed to collect heat and prevent it from being radiated back out of the collector.

**Evacuated tube collectors** have a set of long dark glass tubes with metal absorbers in their cores, which are heated by the sun. Cool working fluid flows past the top of the metal absorbers, is heated, and carries that heat to the hot water storage tank. The glass tubes are vacuum-sealed, making them very efficient heat collectors. The round tubes also help to capture solar energy even when the sun is lower in the sky.



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For more information please visit [SFEnvironment.org](http://SFEnvironment.org) or call (415) 355-3780.  
To see how solar water heating can work for your building and to find an installer,  
please visit [www.sf.solarmap.org](http://www.sf.solarmap.org).

## SOLAR WATER HEATING CAN BE A GOOD FIT IF YOUR MULTI-FAMILY BUILDING HAS:

- **Open roof space with little or no shading during the day**
- **A centralized water heating system**
- **Space for solar water storage tank(s) near the existing water heating system**

## INCENTIVES ARE AVAILABLE!

The **California Solar Initiative Thermal program (CSI-Thermal)** provides up-front rebates for solar water heating systems starting at \$12.82 per therm of natural gas reduced (or \$0.37 per kWh of electricity reduced) in the first year of solar water heater use, based on the expected performance. Commercial property owners can receive an incentive of up to \$500,000 for natural gas displacing systems and \$250,000 for electricity displacing systems. These rebate amounts will go down over time, so please check out [www.csithermal.com](http://www.csithermal.com) for current details about the CSI-Thermal program.

In addition to the rebates, a 30% federal tax credit is available for the installation of solar energy systems in the form of the **Business Energy Investment Tax Credit (ITC)**. Property owners are also allowed to accelerate the depreciation of their PV systems on federal and state taxes.

More information about energy incentives is available at [www.dsireusa.org](http://www.dsireusa.org).

When upgrading to a solar water heating system, it's also a great time to look at replacing old inefficient boilers and additional incentives may be available to offset this cost.

## INVESTIGATE YOUR PURCHASING OPTIONS

Costs vary, so we recommend contacting local professional solar water heating installers if you're interested in obtaining estimates for a system that meets your needs and reflects the specific design of your building. We recommend getting 3 bids before selecting an installer.

**GreenFinanceSF** is available to provide building owners financing for energy efficiency, renewable energy and water conservation improvements. The repayment obligation is attached to the property, rather than the individual, and is paid back through property taxes over the life of the financing. Please visit [www.greenfinancesf.com](http://www.greenfinancesf.com) for more information.

## A WISE INVESTMENT

Linda Erkelens installed solar water heating systems on the 4 apartment buildings she owns in San Francisco and understands the benefits that will come from using solar energy. "I like saving money and I like doing it for good reasons. And, I like tax advantages. That's what makes it doable." Linda has taken a comprehensive approach to water use in her buildings, using simple water conservation tools to reduce her bills while getting even better results from her SWH systems. She also highlights other benefits landlords can get from making green improvements to their buildings, including being able to offer these features to prospective tenants when trying to fill vacant units. "We're putting it in our craigslist ads now!"



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