Are you a homeowner wanting to save money while greening your home and using renewable energy? Solar water heating can be a great solution!

How solar water heating works:
A solar water heating system is a simple and reliable energy source for your home. Generally, 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 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 water heating bill could be cut 60-80%. You will also reduce greenhouse gas and other air polluting emissions from your home!

Not sure if your home is right for solar? Check out sfenergymap.org to get an estimate of your rooftop solar potential.

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.
Incentives are available!
With federal tax credits and a statewide solar water heating incentive program, now is the time for San Franciscans to consider solar water heating.

The California Solar Initiative Thermal program (CSI-Thermal) provides an up-front rebate for installing a solar water heater, based on system size and performance. Residential customers are expected to receive rebates averaging $2,175 for solar water heating systems that reduce natural gas use. Check out gosolarcalifornia.org/solarwater for more information about the rebate program.

A 30% federal tax credit is also available through 2016 for the installation of residential solar energy systems in the form of the Residential Renewable Energy Tax Credit.

If you replace your old water heater when installing solar water heating, you could receive a $200 rebate from Pacific Gas & Electric at pge.com/myhome/saveenergymoney. In addition, you can receive incentives for upgrading the comfort, safety and energy efficiency of your entire home with incentives administered by the San Francisco Department of the Environment. Visit SFEnvironment.org/sfhlp for more information.

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 home. We recommend getting 3 bids before selecting an installer.

Now is the time to switch to solar!
San Francisco resident Elizabeth Balaqui decided to install both solar electricity and solar water heating on her home in the Castro District to reduce some of her carbon emissions. “I have always been interested in energy conservation,” she told us. “And now it’s just a really good time to do it, with the federal, state and local incentives.” Even on overcast days, Elizabeth’s solar water heating system generates a significant portion of her water heating needs. While observing the system on a cloudy morning, a brief break in the clouds caused the panel temperature to rise from 80° to 107° F in a matter of moments, as sun light reached the collectors. Elizabeth is very pleased with her new system and she highly recommends solar water heating for every homeowner, saying “Solar water is the way to go!”

Solar water heating panels on the roof of Castro resident Elizabeth Balaqui.

To see how solar water heating can work for your building and to find an installer, please visit sfenergymap.org