

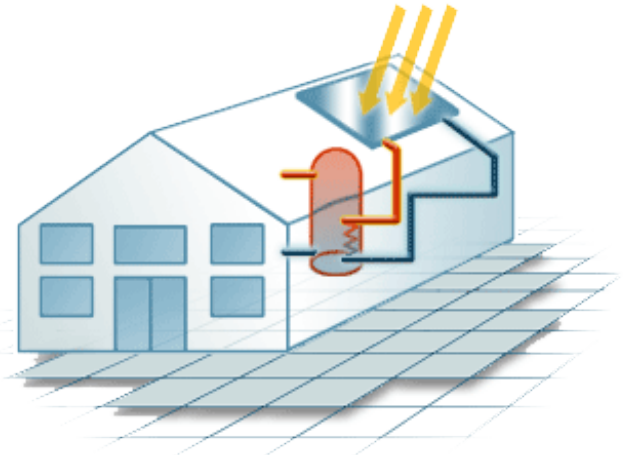


## Solar Thermal Incentive Program

For domestic hot water systems in residential or nonresidential facilities

### What Is a Solar Thermal System?

A solar thermal system generates heat from sunlight. Solar thermal systems may be used to heat water or air for space heating. In the United States, the most widespread application is for swimming pool heating. The most visible components of a solar thermal system typically are the solar collectors, or panels, which are usually roof-mounted. For water-heating systems, the rest of the system includes a tank, for storing the heated water, a pump and piping, to circulate the heated liquid (usually an anti-freeze solution) from the collectors to a heat exchanger in the tank, which generates hot water or warmed air, and a controller to automatically operate the pump.



### Benefits of Owning a Solar Thermal System

Investing in a solar thermal system benefits you, your community and our planet in a number of ways.

- Solar thermal systems are appealing because they are technically simple and tend to be less expensive than other types of renewable energy systems for most applications. Although solar thermal systems can be used instead of electricity, gas or oil to heat your water or home, the most cost-effective application in Connecticut is for domestic hot water (DHW) heating, particularly if it displaces electric water heating. While the capital cost of installing a solar thermal system is higher than that of installing a conventional water heater, the fuel savings can pay back the cost of the system in approximately 6 to 10 years, with federal and state incentives.
- The planet benefits from reduced greenhouse gas emissions and preservation of finite fossil-fuel resources for future generations. A typical home solar thermal system supplies about 70% of a home's hot water, saving 7.7 barrels of oil per year and avoiding the production of almost 3.5 tons of carbon dioxide!

- The local community benefits from improved air quality, greater independence from fossil fuels, and jobs created by the installation of these systems.

### Incentives Available to Help Pay for Solar Thermal Systems

The Clean Energy Finance and Investment Authority (CEFIA) offers grants, through designated participating contractors, to any building owner or homeowner in Connecticut who wishes to install solar thermal systems. Funds will be restricted to domestic hot water and commercial process water systems only; space heating and pool heating systems will not be eligible. Grants are intended to support systems that will supply between 50% and 80% of a customer's annual domestic or process hot water needs. Developers of new residential or nonresidential facilities in Connecticut may also apply for the incentives.

A complete list of eligible contractors is available at [www.ctcleanenergy.com/solarthermal](http://www.ctcleanenergy.com/solarthermal).

## How Are Incentives Calculated?

Solar thermal incentives are in the form of rebates based on system output (Btu production) as predicted by the Solar Rating and Certification Corporation (SRCC) and industry standard software. The incentive is based upon the predicted usable annual output of the system (in millions of Btus – “MMBtu”) as determined by the system size, type of collectors, tilt, azimuth (compass heading) and shading. The maximum size of any rebate will be limited to the thermal output necessary to meet the domestic hot water needs of the building’s occupants. For commercial, industrial or institutional projects, the rebate will also incorporate the process hot water requirements of the facility.

### Residential Installations\*

\$275 per MMBtu of the predicted annual usable system output. This will represent about 30% of the average system’s cost, with a range from 25% to 45%.

### Non-Residential Installations\*

The maximum size incentive for any non-residential installation will be the lesser of \$300,000 or 75% of the system’s cost.

- For-profit commercial projects: The rebate will be \$450 per MMBtu of annual usable output.
- Not-for-profit and governmental projects: The rebate will be \$550 per usable MMBtu.

\*Program incentive levels are subject to change. Please visit [www.ctcleanenergy.com/solarthermal](http://www.ctcleanenergy.com/solarthermal) for up-to-date program information.

Applicants for incentives under the Solar Thermal Incentive Program are strongly encouraged to participate in Connecticut Energy Efficiency Fund programs, which typically offer a rapid payback on the cost of conservation and load management measures. See [www.ctenergyinfo.com](http://www.ctenergyinfo.com).

## How Do I Get Started?

Prospective applicants should visit CEFIA’s website at [www.ctcleanenergy.com/solarthermal](http://www.ctcleanenergy.com/solarthermal) or contact an eligible solar thermal contractor from the list found on the website. These contractors will review your project with you, provide information on solar thermal systems and assist you with CEFIA’s incentive program. As with any significant purchase, you should shop around when considering a solar thermal system, check references, seek as much information as possible and obtain more than one quote.

### Special Note

Funding for this program is being provided through the American Recovery & Reinvestment Act of 2009, and is expected to support approximately 550 residential and 50 non-residential projects. Commercial projects must comply with the Davis-Bacon Act (site workers must be paid “prevailing wages”). All projects must be reviewed by the State Historic Preservation Office, and all publicly-owned projects must comply with the “Buy American” Act.

## The Clean Energy Finance and Investment Authority

CEFIA was created by the Connecticut General Assembly in 2011. It is the successor organization to the Connecticut Clean Energy Fund. CEFIA’s mission is to promote, develop and invest in clean energy and energy efficiency projects in order to strengthen Connecticut’s economy, protect community health, improve the environment, and promote a secure energy supply for the state. As the nation’s first full-scale clean energy finance authority, CEFIA will leverage public and private funds to drive investment and scale up clean energy deployment across Connecticut.

CCEF’s main goals are to:

- create clean energy supply for Connecticut;
- accelerate the development of clean energy and energy efficient technologies; and
- educate Connecticut consumers about the benefits and availability of clean energy.



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