SOLAR WATER HEATING

Fact Sheet

Solar Water Heating for Non-Residential Customers

The NV Energy Solar Water Heating Program offers incentives to small businesses, schools and public properties who install eligible solar water heating systems. Using the sun's energy to heat water saves energy, lowers water heating bills and helps organizations meet sustainability goals.

Small-scale commercial solar thermal systems offer a reliable, proven approach to water heating and investment return. They are designed to provide for the business specific hot water consumption needs and are ideal for facilities such as cafeterias, restaurants, car washes, veterinary offices, salons, community centers, health clubs, and laundromats.

How Solar Water Heating Systems Work

Using the sun for water heating is a natural way to conserve resources and protect the environment while saving energy. Commercial solar thermal projects are usually set up as pre-heat applications for the building's existing water heating system or hot water loop. This concept is simple:

- In a solar water heating system, fluid is circulated through solar collectors where it is heated by the sun's energy. Typically, a tank located next to the water heater is used to store the water that has been heated by the sun.
- When the water temperature in the water heater drops, that water is replaced with the hot water in the thermal storage tank and pumped to the collectors to be heated by the sun.
- Only when the hot water in your water heater and the thermal storage tank is exhausted will your conventional water heater be utilized.

The result is a significant increase in efficiency since you are using the sun's free energy for heating your water, rather than the more conventional gas or electric fuel sources.

Cost Savings

While a solar water heating system may cost more than a conventional heater or boiler initially, it can more than pay for itself over time through energy savings. Energy savings can be estimated based on demand, amount of storage and the efficiency of the building's primary water heating system. While energy savings, monthly utility savings and long-term value of a solar system are important, the financial payback on solar thermal is largely driven by incentives, which include tax credits, accelerated depreciation and incentives offered by NV Energy.

NV Energy Incentives

The NV Energy Solar Heating Program offers incentives to natural gas customers who install solar water heating systems. Incentives help offset the cost to install solar heating systems. Small business customers can receive up to $7,500 while schools and public, and non-profit customers can receive up to $30,000 per system. Incentives are issued in the form of a one-time payment based on the number of therms of natural gas consumption that the system is designed to offset annually. Applications are being accepted online at **nvenergy.com/solarheating** on a first come, first served basis.

System & Installation Costs

There are a number of site factors that can affect the costs and feasibility of an installation, such as the type and age of a roof, shading issues due to trees on site or mechanical equipment on the roof, and the requirements of connecting to the building's hot water heating system.

Eligible Contractors

Solar water heating incentive program participants are required to use an eligible contractor to complete the installation of their solar water heating system. In addition to holding the appropriate license types, eligible contractors have completed a one-day training offered by NV Energy. Eligible contractors are available to help determine potential installation costs and savings estimates as well as assist customers through every step of the solar heating incentive program. A complete list of eligible contractors is available online at **nvenergy.com/solarheating** or call 866-786-3823 to request a list.

Eligible Equipment

The Solar Rating & Certification Corporation (SRCC) provides third party, ANSI-approved testing for solar thermal collectors. These ratings are the industry's best guarantee that a collector's performance has been reviewed and verified. SRCC certification is required for incentive program eligibility.

Warranty, Maintenance and Expected Life

Solar water heating systems have a design life of 20-25 years. This is a mature technology that has been deployed, refined and improved for close to a century. Most major manufacturers' collectors carry a 10 year warranty. Other component parts usually carry 1 to 5 year warranties, depending on the type of component and manufacturer.

For More Information

To learn more about the solar heating incentive program, including how to apply and find a contractor, visit **nvenergy.com/solarheating** or call 866-786-3823.

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