

# SOLAR POOL HEATING

Fact Sheet

## Solar Pool Heating for Non-Residential Customers

Solar pool heating is a proven technology that heats swimming pool water with clean solar energy. Businesses such as hotels, resorts, health clubs and schools are perfect candidates for solar pool heating since pools must be maintained at a comfortable temperature. Traditional pool heating for these types of businesses and schools could mean thousands of dollars in annual energy costs. Investing in a solar pool heating system can greatly reduce those high overhead expenses.

### How Solar Pool Heating Systems Work

The most basic solar pool heating works by using solar collectors to harness the sun's heat to warm swimming pool water. The cold pool water, from the existing pool pump and filter, is diverted through a series of solar collectors. As it passes through the solar pool heater, the water is warmed using the sun's energy, much like water in a garden hose will become hot by sitting in the sun. The warmed water is then returned back into the pool.



Some solar heating systems work directly with the existing pool heater. When the sun is not available, such as during the night, on cold days, or during a storm, the traditional pool heater will take over, ensuring the pool is always kept at the desired temperature.

## Cost Savings

Water heating constitutes a major portion of the operating expenses for a commercial pool, and the larger the pool, the higher the cost of heating it. Commercial pool heating is one of the most cost-effective applications of solar heating technology. Offsetting the cost to heat a pool with a solar pool heating system is an economical way to extend the swimming season for seasonal pools and significantly decreases the cost of heating a pool seasonally or year-round.

## NV Energy Incentives

The NV Energy Solar Heating Program offers incentives to natural gas customers who install non-residential solar pool heating systems. Small business customers can receive up to \$7,500 while schools, 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](http://nvenergy.com/solarheating) on a first come, first served basis.

## System & Installation Costs

Solar pool heating systems are simple and relatively inexpensive. They are cost competitive with both gas and heat pump pool heaters and have very low annual operating costs. Seasonal pool systems typically consist of low cost, unglazed plastic collectors and the pool itself is the thermal storage for the system. Additionally, the pump which is already used for filtering pool water will also circulate water through the solar collectors.

Solar pool heating systems are often planned to suit a specific application and budget. The proper installation of a solar pool heating system depends on many factors. These factors include solar resource, desired water temp, whether the pool is used seasonally or year round, local building code requirements, and safety issues. An eligible contractor can assist with design and help in determining equipment and installation costs.

## Eligible Contractors

Solar heating incentive program participants are required to use an eligible contractor to complete the installation of their solar pool 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 participation in the solar heating incentive program. A complete list of eligible contractors is available online at [nvenergy.com/solarheating](http://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

After installation, properly maintaining the system will keep it running smoothly for 10 to 20 years. Collectors should require little maintenance and collectors may need to be cleaned when rainwater doesn't provide a natural rinse. Be sure to consult your eligible contractor about system warranties and read the owner's manual for maintenance requirements.

## For More Information

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

