

Solar Systems for Commercial Pools

Overview

Solar pool heating is a clean, reliable, and cost-effective technology, and is the most widely used application of solar water heating technology in the U.S. today. In 2010, nearly 30,000 solar pool heating systems were installed, representing a 13% growth in the industry over 2009.¹

Solar energy is used to heat both commercial and residential swimming pools. The existing pool filtration system can frequently be used to transfer heat from the solar collectors to the pool water. Solar pool heating systems generally use unglazed, low temperature or glazed medium temperature solar water heating collectors, depending on the climate and on whether the pool is located outdoors or indoors.

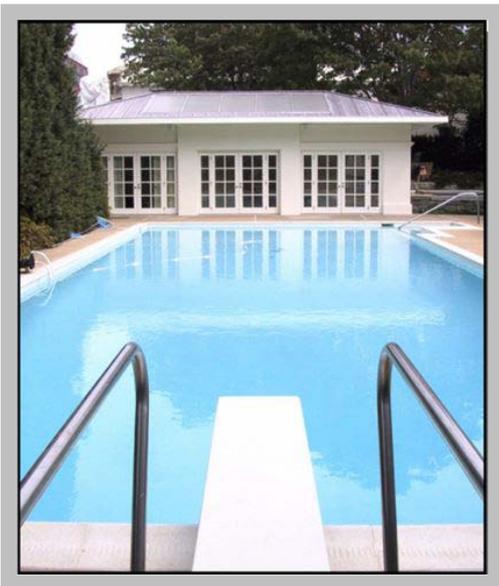


A solar pool heating system on a fabricated structure at the Terravita Golf Community in Scottsdale, AZ. Photo courtesy of Aquatherm.

Growing Commercial Application & Creating Jobs

Businesses such as hotels, resorts, apartment complexes, homeowners associations, health clubs, camps and schools are perfect candidates for solar pool heating, since owners and operators have no choice but to keep their pools at a comfortable temperature. As of 2008, there were over 186,000 heated commercial pools nationwide.² Of these pools, approximately 39%, or 115,540 are indoor; meaning they must be heated year round.

Most of these pools are heated with fossil fuels such as natural gas, propane, or heat pumps. This increases the U.S. dependence on imported fuels and pollutes the air. Furthermore, fossil fuel prices fluctuate significantly and are expected to rise over the next decade. Instead, solar pool heating systems can provide a clean, domestic and affordable way to reduce the monthly energy bill for heating commercial swimming pools.



The White House outdoor pool relies on a solar solar pool heating system. Source: SunEarth

If all these pools were heated with natural gas, the annual heating load would produce carbon dioxide emissions equivalent to driving 6.6 million average cars a total of 12,500 miles each.³

Unlike other commercial solar property, solar heating systems for commercial pools are not currently eligible for the 30% investment tax credit. However, the states of Arizona, Wisconsin, and North Carolina have set a precedent by allowing commercial solar pool heating systems to qualify for their state tax incentives.

Single-family residential solar pool heating has enjoyed a significant market penetration the over the last 35 years due to its simple installation, easy operation and rapid payback. **By enabling solar pool heating systems on commercial property to take advantage of the 30% federal investment tax credit, commercial application for solar pool heating will significantly grow.**

This will create thousands of jobs in the U.S. through the manufacturing and installation of the systems, and will significantly reduce dependence on imported fuels while conserving our domestic natural gas supplies.

Quick Facts about Solar Pool Heating Systems

- **Reduce Dependence on Imported Fuels:** Instead of using natural gas or electricity, solar pool heating systems can provide a clean, safe and affordable way to reduce dependence on imported fuels and conserve our domestic natural gas supplies.
- **Save Money:** Commercial pool owner/operators would save money by avoiding fossil fuel usage and could spend the savings on growing their businesses.
- **A Growing Industry:** In 2010, 29,540 solar pool heating systems were installed in the U.S., representing a 13 percent growth over 2009.⁴ Today there are an estimated 790,000 solar pool heating systems installed in the U.S.,⁵ more than any other solar technology application.
- **Jobs, jobs, jobs:** In 2010, the solar industry supported 100,000 jobs in all 50 states and is expected to grow 26 percent in 2011. The U.S. is the worldwide leader in solar pool heating technology. These are quality jobs with good benefits that cannot be sent overseas.⁶



A solar pool heating system extends the use of this community pool into the winter months. Photo courtesy of FAFCO.

About the Solar Energy Industries Association

Established in 1974, the Solar Energy Industries Association® is the national trade association of the U.S. solar energy industry. Through advocacy and education, SEIA and its 1,000 member companies are building a strong solar industry to energize America. As the voice of the industry, SEIA works to make solar a mainstream and significant energy source by expanding markets, removing market barriers, strengthening the industry and educating the public on the benefits of solar energy.

For a referenced version of this factsheet and more information, please visit www.seia.org.

¹ U.S. Solar Market Insight Report, 2010 Year in Review. <http://www.seia.org/cs/research/SolarInsight>

² Source: PK Data. "IRL80 2008 U.S. Commercial Pool Market Statistics." <http://www.pkdata.net/PKData/library1.htm>

³ Source: SEIA calculation. Does not take into account location of pools.

⁴ U.S. Solar Market Insight Report <http://www.seia.org/cs/research/SolarInsight>

⁵ U.S. Solar Market Insight Report <http://www.seia.org/cs/research/SolarInsight>

⁶ National Solar Jobs Census, 2010

<http://www.thesolarfoundation.org/sites/thesolarfoundation.org/files/Final%20TSE%20National%20Solar%20Jobs%20Census%202010%20Web%20Version.pdf>