



E³A: Solar Hot Water Applications for the Home, Farm or Ranch

Steps in the Solar Hot Water Series

Building and Site Assessment

Conservation and Efficiency

System Options

System Sizing

Costs

Installation

Operation and Maintenance

Solar Hot Water Collector Sizing Worksheet

Installation

Before installing a solar hot water system, check local building codes, subdivision covenants and zoning ordinances or regulations. Contact your local zoning and building department representatives to determine requirements. If you live in a subdivision with a homeowner's association (HOA), review the covenants and contact the HOA board or the management company. You might need a building permit if installing on an existing home. If you are the first in your HOA or town to install a renewable energy system, you might need to educate building code officials and local representatives.

Installation issues might include historic district guidelines and future shading. Talk to your neighbors about your plans to determine whether they might plant trees or make additions to a home that may shade your system. Some government jurisdictions have solar access zoning regulations that prevent blocking sunlight required for operation of any solar energy system.

Who will install your system?

Proper installation of a solar hot water system is a complex process that requires attention to safety; hiring a qualified solar hot water company or contractor is recommended. Some manufacturers will extend warranties if a system is installed by one of their trained contractors, and some utility rebates will only be given if a trained professional installs your system. Ensure you are hiring a qualified professional by asking questions about their level of experience, licenses, certifications and customer service record.

Experience

The company or individual contractor should have experience installing and providing maintenance for the system you want to install. If possible, ask to speak with past customers about their experience with a solar hot water system and the level of customer service they received.

Licenses

Some counties, cities and utility companies require installers of solar hot water system to have a plumber's license or a contractor's license. Get confirmation from your state's licensing boards.

Insurance

Be sure to ask about and see confirmation of liability and workman's compensation insurance.

Certifications

Many installers take specialized training and exams to receive certifications. The North American Board of Certified Energy Practitioners (NABCEP) provides training and certification for professional installers of solar hot water and other renewable energy systems. NABCEP lists NABCEP-certified professionals in each state at www.nabcep.org.

Finding an installer

The Solar Energy Industries Association and its state chapters provide lists of solar energy system companies by state or city at www.seia.org.

Bids

Compare bids from several companies and ask for bids on Solar Rating and Certification Corporation (SRCC)-certified systems that specify the system type, size, energy output and maintenance requirements in addition to the cost. Ask that the bid include costs for installation, initial setup, hardware, permits, sales tax and warranties. Some companies will research and complete the paperwork for any available federal, state, local and utility incentives. Ask your installer if they include incentive deductions in their cost estimates, and be aware that incentives might arrive later and you will typically need to pay the full initial cost upfront.

Do-it-yourself installation

If you decide to install your own system, you should educate yourself and take time to attend classes, workshops or trainings organized by qualified instructors. Whether you hire a contractor or install the system yourself, make sure it is done correctly and safely.

References

- National Renewable Energy Laboratory (produced) for the U.S. Department of Energy. (2003, December). *A Consumer's Guide: Heat Your Water with the Sun*. DOE/GO-102003-1824.
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- (2010, October). *Community Solar Access*. Retrieved February 8, 2011, from: http://www.energysavers.gov/renewable_energy/solar/index.cfm/mytopic=50013

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