

Use solar power to heat your water

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On October 6th the American Solar Energy Society and the Utah Solar Energy Association is putting on the Nation Solar Tour 2007. Be sure to mark your calendars it will prove to be an event worth attending. www.utsolar.org Next week's article will give more information and what you can expect.

Using solar hot water for domestic use is one way to reduce your CO₂ footprint on the planet, as well as the quickest pay

back of any solar produce.

Within a few years, the money saved and the tax credits results in the system paying for itself. Today's systems are simple and time tested. There is a lot of bad publicity from the seventies that is just not true today. A well installed system will give many years of care free service.

A solar hot water system can supply you with hot water all year. The system will come on about an hour after the sun comes up, except on cloudy days. The best time to use your hot water is in the morning. In a hot water tank, the cold water enters

at the bottom. While the panels are working, the heat is being applied at the bottom of the tank. Consequently, as the cold water enters the tank, it is first to be heated. This will then give you greater efficiency.

In an environment that you have freezing you only want to use a closed loop system for domestic hot water. Only use panels for domestic hot water that are capable of heating water in a closed loop system. Panels designed to preheat the water would not be a good choice for the climate in southern Utah. If you even have one freeze a year

there would be a good chance of harming the panels and piping. There are drain back systems that work in climates with no freezing. In Southern Utah, a closed loop system is the only system that should be used.

Solar hot water panels can also be used for radiant floor heating or for heating a swimming pool to extend the number of months of use. There is, however, a critical difference between panels that are for a pool and a domestic hot water system. Pool panels are plastic and are designed for the flow of the circulation of the pump for the pool. These panels

can raise the water temperature in a pool as much as 12 degrees, but these systems must be drained for the winter.

There is maintenance that is required for solar hot water systems. The panels can get dirty or hard water deposits form, resulting in a need for periodic cleaning. If the system ever stops working, for whatever reason, the fluid needs to be changed. When a system that has propylene glycol stagnates will turn acidic and start to eat the copper and cause holes over time. It can cost a

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bundle to change the copper in a system. The best thing is to regularly change the coolant every eight to ten years.

People who want to install a system on their own often are given incorrect information. The internet offers some good pricing, but a lot of bad advice.

Having a qualified, licensed and insured installer is the best route to take.

Installing a system without a qualified installer can result in the system not being charged properly or the equipment installed in places that will cause problems. Also, pipe and pump sizing is critical to get the highest heat transfer efficiency.

If you insist on installing the system yourself, it is highly recommended that you have

qualified person and buy that system from the designer.

You will then have someone to answer your questions and supply you with the specs

needed to make the system work well.

At Alternative Power Systems, Inc., we are happy to assist you with this venture.

Stewart Somerville, of Alternative Power Systems, Inc. in Cedar City is a frequent contributor to Homefinder, a publication of The Spectrum and Daily News.

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