

Solar Hot Water Systems Today

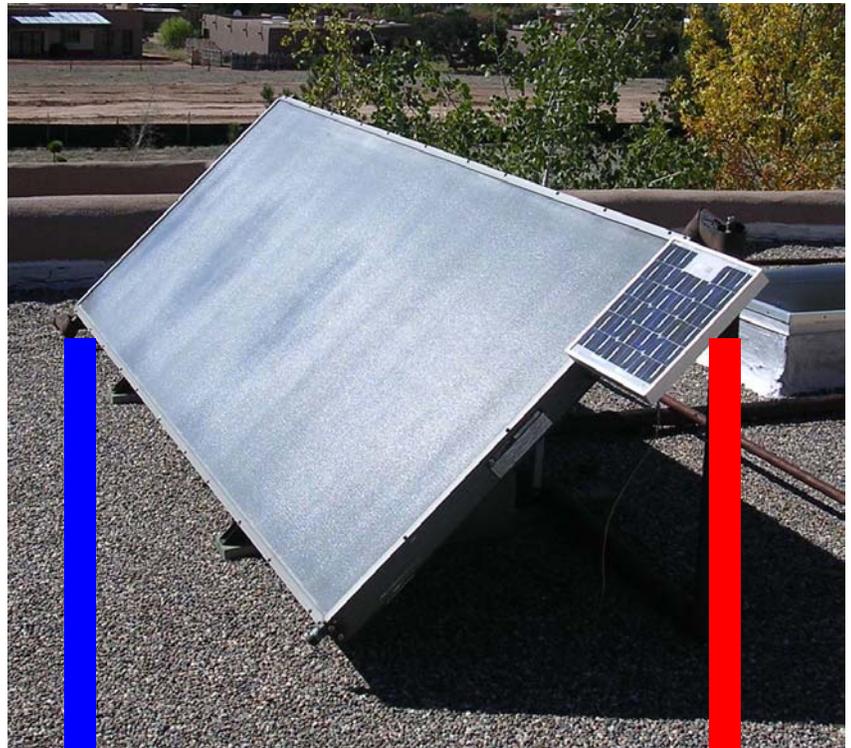
Today's solar hot water systems, like the one pictured at right, are a simple, cost effective, and environmentally friendly way to provide domestic hot water using New Mexico's abundant sunshine.

The system pictured uses a simple "flat plate collector", which is basically a well insulated glass-covered box containing a set of water pipes with special light-absorbing metal fins. Water, with glycol added to prevent freezing, circulates through the collector and gets hot. The heat collected is then transferred to the hot water tank via a "heat exchanger", which transfers the heat into the hot water tank without mixing the water in the tank with the (glycol) fluid.

A small photovoltaic (solar electric) module, attached to the upper right of the hot water collector (see photo), is used to provide green electricity to pump the fluid in the collector loop. In this arrangement, the pump only runs when the sun is shining, and does not stop if the power grid goes down (which protects the system from overheating, and you'll still have hot water).

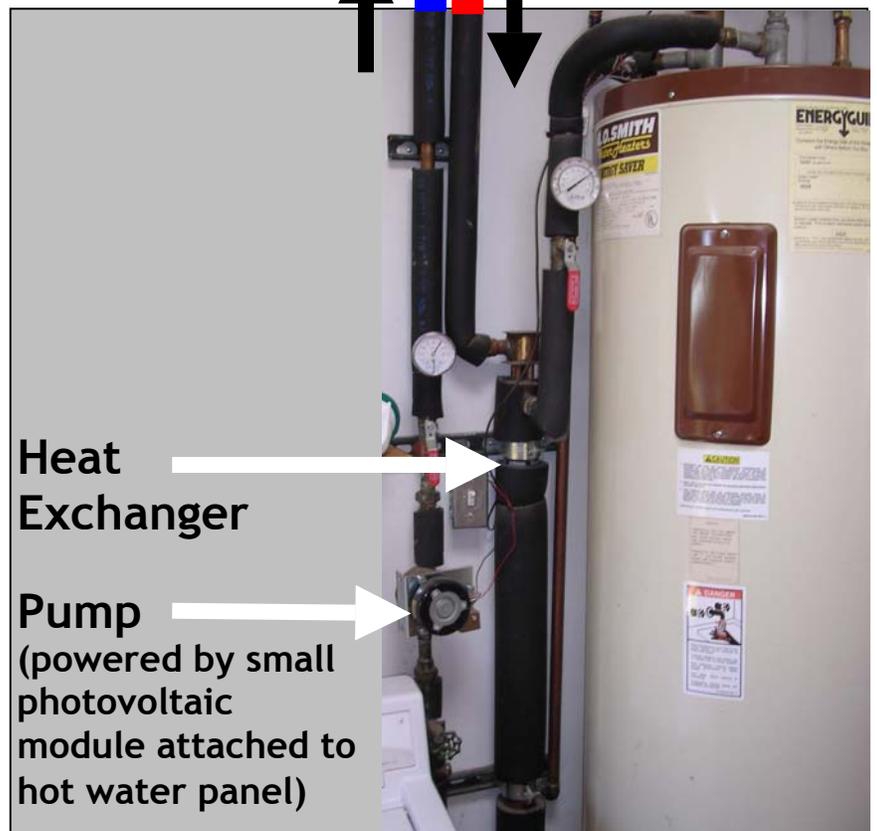
Each square foot of panel can heat 2 to 4 gallons per day. Complete 80 gallon systems typically cost \$4000 and up.

For more information, see the "How to Go Solar Guide" at www.NMSEA.org.



COLD

HOT



Heat Exchanger

Pump
(powered by small photovoltaic module attached to hot water panel)