

Solar Hot Water Incentives Summary Table

<i>Type of Incentive</i>	<i>Number of States with Incentive</i>	<i>Description</i>	<i>States</i>
Personal Income Tax Credits	8	Eight states offer tax credits that can be used for residential solar hot water systems. Seven of the eight are based on a percentage of what you pay for the system (and installation). These range from 5% in North Dakota to 40% in Idaho and North Carolina. All indicate a maximum amount. This is usually based on the assumption that the installed system will cost \$4000 or less. The eighth state, Oregon, has a performance-based standard. Interestingly, the performance of the system is determined by an estimate of the solar incidence in your area and the assumption that each household uses 75 gallons of 125 F water per day. Thus, the credit is not really performance-based since your system doesn't necessarily have to be working to qualify for the credits. It should also be noted that only Hawaii has a special stipulation for multi-unit dwellings (\$350 per unit). Note that states like Florida and Tennessee can't offer tax credits because they do not have state income taxes.	Arizona, Hawaii, Idaho, Massachusetts, North Carolina, North Dakota, Oregon, Utah
Sales Tax Exemption	4	Four states allow solar hot water equipment to be fully exempt from their state sales tax, which range from 5% to 7%. (Arizona is the only state that indicates a maximum exemption amount of \$5000.) Researchers from North Carolina note that this incentive tends to be "of more philosophical and public relations import than economic significance. While the incentive shows the states support for solar energy, it is expected that sales increases as a direct result of this incentive will be modest."	Arizona, Florida, Massachusetts, New Jersey
Property Tax Exclusion	13	This incentive states that the added value from the installation of a solar hot water heater will not be included in the assessment of the property's value for tax purposes. Thirteen states have some form of property tax exclusion. Several states allow the city or town to offer the exemption. Some limit the time of this exclusion to 3 to 10 years. Some give an exemption for systems provided that they are valued at no more than the value of a conventional system—thus they are not exempted altogether. This incentive removes barriers, but the effects on sales are also believed to be modest.	Connecticut, Illinois, Indiana, Massachusetts, Montana, Nevada, New Hampshire, North Dakota, Oregon, South Dakota, Texas, Virginia, Wisconsin
Rebates	7	Seven states are known to have at least one utility program that offers rebates to homeowners who install solar hot water heaters. These rebates range from \$150-\$1000. (This wide range is due to the wide range and cost of systems required given variations in climate.) On one extreme, SMUD has installed over 3,000 systems under this program. Hawaii has also been very successful at installing solar hot water heaters through this and other programs; more than 4000 systems were installed in Hawaii in 1998 through their combination of programs. At the other end of the spectrum, Wisconsin's rebate program is believed to have installed only 1 system since 1993.	California (SMUD), Florida (Gainesville), Hawaii, Nevada, Oregon (Emerald and Eugene), Texas (Austin) Wisconsin (MG&E)
Utility Metered Programs	1	Lakeland Electric in Florida offers residential customers a pilot program that replaces electric water heaters with metered solar water heaters at no cost. The utility owns the equipment, and charges the customer for its use. A meter on the equipment determines the fee. An electric water heater is kept in the house as a backup. After a certain number of years, Lakeland Electric will offer the customer the option to buy the solar water heater. There are about 35 test cases currently in operation. This incentive program is similar to a municipal solar utility although much smaller in scale.	Florida (Lakeland)
Financing Loans	7	This incentive program makes low interest loans available for technologies like solar hot water heaters that reduce the homeowners dependence on conventional energy sources. Under the Nebraska and Iowa programs, homeowners seeking a loan approach their own financial institution, which must first approve the project on financial terms.	California (SMUD), Idaho, Iowa, Nebraska, Oregon, Virginia, Texas

		The State Energy Office then buys half of the loan at 0% interest so that the total interest on the loan—from the borrower’s perspective—will be half the market rate obtained through their private lending institution. The principles of this program are also being incorporated into a proposed program in California. Other program offer loans for the cost of the system at 4% to 7.25%. The Idaho Energy Division’s brochure states, “For existing homes or businesses, the savings from reduced usage of conventional fuel must be sufficient to pay for the project’s installation cost (e.g. simple payback of 10 years or less). For new projects, use of a renewable energy resource must be the least cost alternative.” The drawback is that renewables have not yet benefited greatly from the program.	
Certifying Equipment	11	The Solar Rating and Certification Corporation (SRCC) has established national standards for solar equipment. Several states require certification of all solar equipment sold in the state by either SRCC or a state group. Guaranteeing proper installation, however, is much more difficult.	Arkansas, California, Florida, Idaho, Louisiana, Maine, Minnesota, New Jersey, Oregon, Texas, Utah
Licensing Installers	11	Several states offer the equivalent of a solar contractor license. This usually requires four years experience, a fee, and often an exam. In order for individual in Oregon to be eligible to claim income tax credits for their solar energy systems, they must have the system certified by the state Office of Energy or installed by a contractor certified by the Office of Energy under their certified dealer/installer program. In most of the states, however, you don’t have to use a certified installer, so this program is not used. In Arkansas, for example, very few solar mechanic licenses have been issued since the rules were put into place in 1984 as part of Arkansas's plumbing code.	Arizona, California, Connecticut, Florida, Hawaii, Maine, Michigan, Nevada, Rhode Island, Utah, Oregon
Demand-Side Management	4	Three states require utilities to manage electricity demand by promoting the use of renewables. Hawaii has a very successful program that uses an IRP surcharge to fund a rebate program for solar hot water heaters.	Florida, Indiana, Wisconsin, Hawaii
System Benefit Charge	4	Several states are collecting funds for the installation of renewable energy systems. While solar hot water systems are eligible for these funds in many states, it is unlikely that this money will be used to fund solar hot water programs.	California, Illinois, Montana, Rhode Island
Requirements for State Buildings, Schools, State Housing Projects	6	Several states have passed laws requiring state agencies to evaluate and encourage the use of active and passive solar energy systems in state buildings when life cycle costs indicate they are economically feasible. Florida’s law also mandates that schools with hot water demands exceeding 1,000 gallons per day must include a solar hot water heating system to provide at least 65% of hot water needs whenever economically feasible. These statutes, however, have not had a large impact on the installation of solar hot water systems.	Arizona, Colorado, Florida, Hawaii, Maryland, Montana
Solar Access Laws	14	State statutes usually include both covenant restrictions and solar easement provisions. The state's covenant restrictions prevent planning and zoning authorities from prohibiting or unreasonably restricting the use of solar energy. They generally do not create an automatic right to sunlight. Rather, they allow parties to voluntarily enter into solar easement contracts, which are enforceable by law. Most were enacted in 1978 and are seldom invoked. New Mexico’s Energy Conservation and Management Division reports that three to five solar easements are granted each year. Wyoming’s law is the most specific. It allows unobstructed direct sunlight from 9:00 AM to 3:00 PM on the winter solstice (the day with the least sunlight). “While the statute outlines the basic provisions of solar access rights, it leaves implementation to municipalities and counties.”	California, Colorado, Hawaii, Indiana, Massachusetts, Minnesota, Montana, Nebraska, Nevada, New Mexico, New York, Utah, Wisconsin, Wyoming

Source: North Carolina Solar Center’s, Database of State Incentive for Renewable Energy (DSIRE), see <http://www.ncsc.ncsu.edu/dsire.htm>.