

FLORIDA SOLAR



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Solar Hot Water Energy and Cost Savings for Typical Florida Residential Installation

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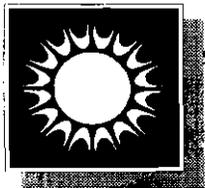
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SOLAR HOT WATER ENERGY AND COST SAVINGS FOR TYPICAL FLORIDA RESIDENTIAL INSTALLATION

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The following table presents energy and cost savings for four typical Florida solar water heating systems. Exact savings by a consumer may vary as much as ± 25 from these numbers for numerous reasons. These include hot water use, storage tank type, thermostat settings, solar system size, collector placement and local weather conditions. Computer simulations were used to generate the energy data.

HOT WATER USE AND COST			SOLAR ENERGY AND COST SAVINGS							
Hot Water Use ¹	Electrical Resistance ²		Solar-Assisted System ³		Integral Collector Storage System ⁴		Conventional Solar System ⁵		Large Solar System ⁶	
	Gallons/day	kWh/yr	Cost *\$/yr	kWh/yr	Savings*/\$yr	kWh/yr	Savings*/\$yr	kWh/yr	Savings*/\$yr	kWh/yr
40	2420	\$218	1660	\$149	1740	\$157	2290	\$206	2420	\$218
55	3210	\$289	1790	\$161	2110	\$190	2760	\$248	3210	\$289
70	3990	\$359	1900	\$171	2390	\$215	3040	\$274	3980	\$358
85	4770	\$429	1980	\$179	2590	\$233	3210	\$289	4530	\$408
100	5340	\$481	2030	\$183	2750	\$248	3340	\$301	4980	\$448
115	5850	\$527	2090	\$188	2860	\$258	3440	\$310	5320	\$479
130	6280	\$565	2130	\$192	2950	\$266	3530	\$318	5570	\$501

* All costs and savings are calculated using an electricity rate of \$0.09/kWh.

1. The hot water usage in gallons per day for a typical family is estimated to be 20 gallons per individual for the first two people, and 15 gallons per individual for the remaining people.
2. Generic 40-gallon electric resistance water heater with R-6 insulation.
3. Solar-assisted system consisting of a 24 ft² solar collector on an existing tank.
4. 2 ft², 40-gallon integral collector storage system on an existing tank.
5. Conventional solar system with high-quality 40 ft² collector on 80-gallon solar tank.
6. Large solar system of 64 ft² collector on 120-gallon solar tank.