



Solar Water Heating Cost Savings Analysis

Federal Tax Credit for Solar Thermal

A 30% Federal tax credit is available for residential and commercial solar hot water systems. The complete cost of the system (equipment and installation) may be applied to the credit, although the credit applies to the basis remaining after any state or utility incentive available to the taxpayer is taken. For solar water heating systems, any property qualifying for the credit must be SRCC certified (or other comparable certification endorsed by the state), and at least 50% of energy used by the system to heat water must come from the sun.

New California State Cash Rebate for Solar Hot Water

Incentives are now available for Solar Water Heating systems! Beginning May 1, 2010, homeowners may apply for cash rebates of up to \$1,875 on the installation of qualifying SWH systems. Rebates are available to homeowners who install systems with an SRCC OG-300 rating in the service territories of PG&E, SCE, SoCalGas and SDG&E. To qualify for the rebate, the SWH system must displace the use of natural gas or electricity, and the homeowner must verify that the system was installed after July 15, 2009.

Rising Energy Prices

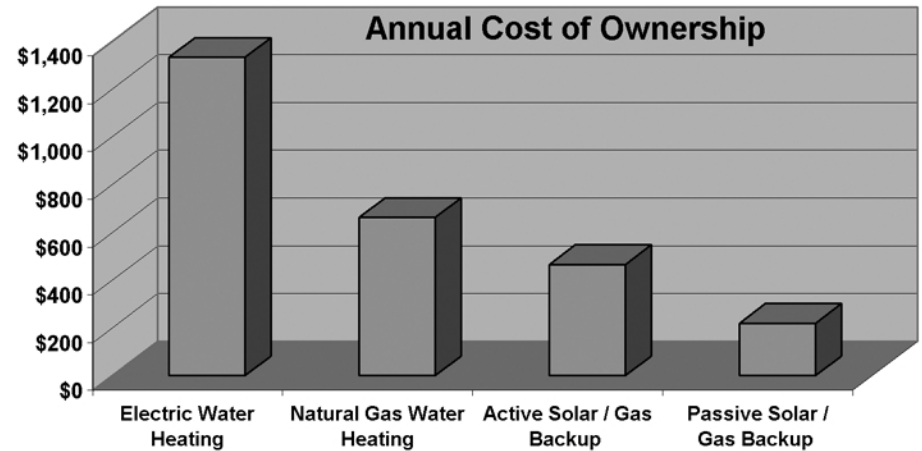
In order to predict where the price of energy is heading over the next 5- 10 years, it is informative to look back at what energy prices have done over the last thirty years. The graph below is from the California Public Utility Commission. As you can see, average electric rates have increased from 2 cents per kilowatt-hour in 1970 to approximately \$.018 per kilowatt-hour in 2006. That is an average increase of 6% per year. Recent increases in the price for natural gas are even more alarming. The wholesale price of natural gas in California has more than tripled over the past 8 years.

Be Solar Smart

Save with Solar Water Heating Systems. The California Energy Commission estimates that the average household spends up to 30% or more of its energy bill for hot water heating, and it accounts for more than one-quarter of the total energy used in a typical single-family home. An electric water heater is the single largest user of electricity of all household appliances.

Annual 'Cost of Ownership'

One study by the California Energy Commission compares the cost of purchasing, installing, maintaining, and operating different types of water heaters over a 30-year period. This economic analysis includes the cost of financing, as well as, interest deductions, and is included in a conventional mortgage in new construction.



Return on Investment

Over the life of the solar system you will realize an average annual 13% return on investment. A typical residential solar hot water system in California has a 10-12 year payback, and will generate over \$18,000 in positive cash flow over the system's 30-year average life. The historical trends would suggest that this will be temporary, and retail gas prices will continue to increase over time. The total incentive for solar hot water now totals over \$3,800 for a typical residential system.

