

Low Tech but Logical

The Building

A triple-decker condo, built in the 1920s. In the photo it's the yellow house on the right.

Motivation

Solar hot water has just always appealed to me as a relatively low-tech but logical way to take advantage of the sun's energy. I had seen a demonstration system awhile ago that impressed me, but when I inquired about the economics, it seemed like the expected payback time at least 10 years, which felt too long. When I found about the Cambridge rebate program, the 6- to 8-year payback made the investment more appealing.



The Project

I talked with 3 national chains and 2 local solar installers, and ended up going with one of the local firms. Their price was competitive, plus they had a wealth of experience, strong knowledge of the various incentive programs, and were willing to spend time to educate me about the technology and the cost analysis.

The installation took longer than expected--3 days--but went smoothly overall. After installation, we did have some fluctuations in water temperature that required having the installer come out to adjust regulator valves.

"I have been impressed by how much hot water we are able to get on a clear, but chilly, winter's day."

Anticipated Savings

The gross cost of the system was \$11,872 for a 40-tube vacuum-type system. After the Massachusetts CEC grant and the Cambridge solar HW program grant, plus the federal and state tax credits, we expect the net cost to be in the range of \$2,500 to \$3,000.

Initial Performance Data

Our system was installed in November 2012, so we do not have a great deal of data yet. I have been impressed, however, by how much hot water we are able to get on a clear, but chilly, winter's day--the vacuum tubes can still get the collector

up to 130 degrees! It is clear that in the sunnier months the system will be able to provide most or all of our hot water. You can take a look at the data on the web at: <http://dashboard.sunwatchmeter.com/home/169#HW/169:8>



