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Why Solar and Plumbing?

Eneref Institute reports on why there is big potential for the plumbing industry in the solar heating sales market

If the recent Solar Power International tradeshow in Dallas this year was any indication, the plumbing industry is very hot on the potential sales of solar heating. Industry giants like Caleffi and others were eagerly exhibiting their solar heating goods and services in Texas at the October show. In fact, Caleffi is a key sponsor of Milwaukee's Solar Thermal '11 tradeshow in December—a perfect time of the year to sample some of Milwaukee's famous brews.

What is it that has the industry so heated up about solar hot water? Well, for one thing, consider the sheer size of the potential opportunity. Roughly ten million water heating tanks are sold in the U.S. each year, or seen another way, about 10 percent of the 100 million homes replace their water heaters each year.

In a typical American home, nearly 20 percent of energy use goes toward heating water, second only to space heating in energy consumption. In fact, that's a larger load than a home's lights, computers, refrigerators and electronics combined. In dollars, that's about \$40 billion annually for U.S. homes, and its one reason the plumbing industry is so hot on solar.

True, the solar PV market far overshadows the solar thermal market, but on the other hand, as recently as 12 years ago, PV was smaller than the solar heating industry is today.

And the U.S. is one of the best places on earth for solar water heating—while we get lots of sunshine, the water intake temperatures are often low. In other words, while the water heater has to do a lot of work, there is plenty of sun available to do it instead.

The fact is, solar hot water is the most affordable renewable option available in the US today. Although the economics of solar water heating do not work for every household, they will work for most. Solar water heating technology can usually displace up to 75 percent of the energy cost.

Still, several obstacles stand in the way to robust sales. One objection you might hear is that some homeowners simply don't like the look of the solar roof panels. But in time, America's tastes will change. After all, rooftop aerial TV antennas were an eyesore until "I Love Lucy" and "The \$64,000 Question" made them a necessity. High energy costs will do the same for solar panels.

But the biggest impediment is likely that most people simply don't know enough about the benefits of solar heating. Yet, by staying one step ahead, the trade can bring homeowners and facility managers the information they need when they are ready for solar. And that's one reason IAPMO is about to launch an expanded solar thermal

training program to complement their Green Plumbers Training courses.

As the publisher of the Uniform Solar Energy Code and the Uniform Plumbing Code, IAPMO has a direct line to the plumbing contractors and technicians that are the key to the workforce needs of the solar thermal industry. In addition, IAPMO/Green Plumbers is working with the California Department of Education to ramp up newly-mandated "Green Partnership Academies" that will prepare high school students for the job market with certificate programs in green plumbing and solar thermal.

According to Steve Lehtonen, IAPMO's senior director of environmental education, the organization is heavily invested in the solar thermal industry, from education, to codes, to testing and certification. Lehtonen believes significant growth in solar heating is inevitable, and America needs an educated, qualified workforce to meet the coming demand.

IAPMO is in the ideal position to offer this training. They already educate plumbers on how to install systems safely and correctly, and are therefore invested in plumbers becoming better educated and aware of solar technology. And there is no better way for plumbers to take advantage of solar heating opportunities when they arise than to be fully prepared to install them.

To sell solar heating, talk to your customers about the simplicity of the systems and the cost effectiveness of solar water heating. Solar panels on the roof of a home provide reliable hot water at a cost that is competitive with electric and gas. Indeed, much of the rest of the

world already uses solar energy to heat water. And compared to solar PV, solar heating is four times as efficient and one fourth the cost-and takes up equally as less roof space.

Beyond becoming an expert in the solar trade, keep you legislators aware of the difference between PV and solar heating. Many states have renewable goals that don't yet include solar water heating. We need to let state legislators know that solar heating deserves equal billing to PV.

Some homeowners may simply be unaware of how their water is heated, and most are certainly unaware of the contribution hot water plays into their energy bill. But they will certainly think about it when the shower suddenly turns cold or when their water heater fails. If you are already prepared with the knowledge, you'll have a hot opportunity to educate your customers as to the benefits of solar heating. ●



This article is part of
an ongoing initiative by
Enerref Institute to
demonstrate the benefits
of solar heating and cooling.

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