

SOLAR PRIMER FOR SOUTHERN INDIANA

So you are curious about solar energy and the possibilities in our area. This is a primer intended to answer some basic questions and present information about this form of renewable energy in our area.

- **First, are solar panels and solar water heating systems a viable renewable energy for Southern Indiana?**

Absolutely, in our region there are approximately 4.5 direct sun hours on average.

This is plenty to provide ample hot water or electricity for the energy conscious household.

Solar panels may be installed on roofs, in yards with good southern exposure, or as an architectural feature such as awnings or carports. There are many efficient, innovative products available for both solar water heating and electricity production.

- **What are the benefits of installing a solar system?**

The greatest benefit is creating a clean, renewable form of energy right at home.

Solar systems are a reliable alternative to coal fired power plants.

Financially, the benefit is locking in electricity rates for the next 25-30 years.

- **Where do I start in my home?**

The biggest form of renewable energy is energy conservation. Using electricity wisely is the first big step to renewable energy. There are many creative ways to reduce our use of electricity. See www.sirensolar.org and www.builditsolar.com for excellent energy tips.

- **How do I plan for solar on my home?**

You may calculate system size and costs at www.findsolar.com. Solar site assessments are available with MREA (Midwest Renewable Energy Association) certified site assessors. They assess energy demand, solar site potential, and

size systems for homeowners. Alex Jarvis (www.solarsystemsofindiana.com) is a local MREA solar site assessor. Mann plumbing is also an experienced local solar water heating installer (www.mannplumbinginc.com).

- **Isn't it expensive? How can I afford solar?**

Yes, initial costs are expensive. The biggest asset you have is your ability to cut your energy needs. By conserving energy it could be possible to have a solar system, which meets a households entire electrical needs, for the cost of a new hybrid car. Little changes can bring about big savings. Every kilowatt-hour you eliminate saves thousands in system costs. This investment will improve your home value, create stable energy rates and support the local economy. There is also currently a \$2,000 federal tax credit.

- **What types of solar systems are there?**

Solar hot water heating is a great way to cut electricity demands. Water heating is the 2nd biggest use of energy in most homes after heating and cooling demands.

Solar air heater heat air and transfer it into the home. A cost effective heater, may be homemade or purchased commercially.

Grid tied photovoltaic(pv) systems use solar panels to generate electricity. This system is economical because excess electricity not used during peak season is put back onto the grid and credited to the homeowner. Electric grid outages do affect this system.

Battery or stand-alone pv. systems are off grid and will provide electricity in outages.

Hybrid pv systems are grid tied with a battery backup for outages.