

Let the sun shine



Home & Building

Written by Jennifer Streisand

Holiday Special
Get a GREEN calendar
--\$12.99 value
with a subscription
to Indiana Living Green.



Builder Casa Verde installed a solar panel system designed by Michael Greven on an Indianapolis home. Photo courtesy David Kadlec/Casa Verde

Although technologies for solar products have improved dramatically during the last two decades and the cost of solar energy has dropped by about 90 percent, installation of a system for electric power is still expensive. However, a homeowner can take smaller steps

to reduce the carbon footprint by using a variety of products that are less costly.

"The key is that using solar energy and solar panels involves a payback," said Terry Black, co-owner of Green Way Supply, an Indianapolis retailer and wholesaler of green building products. "You pay for the product with the savings at some point down the road."

In addition, while power is currently inexpensive in Indiana, energy costs will rise rapidly in the future because of equipment that will be necessary to remove pollutants from power sources. By installing solar equipment or building a house to use solar power, a homeowner will have more consistent utility bills year after year, similar to having a fixed-rate mortgage. "You lock in your utility rate for that amount of electricity," Black said.

Energy assessment

Before installing any type of solar equipment, a house should be evaluated for the present state of its energy efficiency, said David Lantz, owner of Construction Resources Corp., a company in Bloomington, Ind., which integrates creative, practical designs and energy efficiency. If the house is not sealed properly, then any type of energy-saving product will not serve the purpose of making energy consumption more efficient.

"It's like having the door open and then trying to be energy efficient," Lantz said. He recommends that an independent, third party make an evaluation of the house because the report is more likely to be objective with no agenda or specific products to promote.

For example, any homeowner can request such an evaluation from the federal government's ENERGY STAR program, which is a collaborative effort between the U.S. Environmental Protection Agency and the U.S. Department of Energy. A homeowner can have an energy assessment done for about \$300 to \$500.

Getting a fair evaluation is really important because a contractor or anyone who has spent time in your home might say something like, "Oh, you need to replace those windows, those windows are horrible. You'll spend \$15,000 to \$20,000 on the windows, when that really wasn't the problem," Lantz said.

When improvements are made, healthy air quality should be paramount in addition to using the least amount of energy. "You seal it tight; you ventilate it right," he said.

Solar thermal

Lantz's company has started to work with a contractor to install solar hotwater heaters for customers. "It's pretty easily installed and is a new technology that is more efficient than the older solar water heater systems," he said.

Solar heating panels are installed on the roof. The panels aren't used to create electricity, but to absorb the heat from the sun to contribute to the temperature of the hot water, explained Eric Cotton, a partner of ECI Wind and Solar in Fairmount, Ind. "A domestic hot water system is very effective for Indiana consumers," he noted.

Cotton estimates that a sophisticated solar hot-water application can be installed for around \$7,500, and that a good functional system would cost less than that. Ideally, a homeowner interested in installing solar hot water should have adequate southern exposure to absorb enough heat from the sun.

A hot-water application wouldn't necessarily have to heat the water entirely, but contribute to or preheat the water, said Michael Greven, principal of EcoSource Inc., in Columbus, Ind. Greven collaborates with Indianapolisbased real estate firm Casa Verde LLC to design and build sustainable housing in Indiana.

"You integrate a solar hot-water application to work with your hot water heater, and you just reduced the number of

New plants earn high marks in summer garden trials

by Jo Ellen Meyers Sharp



Two new plants that were on trial in the summer garden passed muster with high marks.

This Lawn is Your Lawn

Eat the View

General

Sycamore Audubon Society (SAS)

Bird Walks

November 13, 2008 (8:00 am)

Seminar, Conference or Workshop

Weekend Series Permaculture

Design Course

November 14, 2008 (6:00 pm)

Farmer's Markets

Bloomington Community Farmers'

Market

November 15, 2008 (9:00 am)

[View Full Calendar](#)

Spirit & Place
FESTIVAL
Nov. 1-16
imagination
Nov 14, 7 p.m.
**Reused Threads:
A Green Fashion Show**

Living Green on Fox59 - Oct 22



FOX 59
INDIANAPOLIS
Compost How To
- October 22, 2008



At what pace is your city/community is moving to green?

- Fast track
- Steady pace
- Needs a push
- Like a snail
- Status quo
- Vote Results

September/October 2008

July / August 2008

May / June 2008

March/April 2008

January / February 2008

November / December 2007

September/October 2007

July/August 2007

May/June 2007

March/April 2007

degrees to raise the water temperature," said Greven. "That is a good opportunity because even if you just preheat the water, you're steps ahead."

Hiring the experts

A professional installer should be used when placing a solar hot-water system in a house. The state of Indiana does not yet license solar installers, so homeowners should choose professionals who have taken classes and have studied solar for some length of time, or acquired some industry certification.

Two organizations — the Great Lakes Renewable Energy Association and the North American Board of Certified Energy Practitioners — are good places to begin researching and finding installers who are knowledgeable to do the work.

Attic fans and screens

Another product that is relatively inexpensive and easy for homeowners to install is a solar attic fan that will use a panel to pull the hot air out the attic and reduce cooling costs, Cotton said. An Indiana manufacturer, SunRise Solar Inc., makes the fans, and they can be installed in a matter of hours for about \$1,000. An inexpensive way to let the light and warmth in during the winter and keep it out in the summer is to install solar screens on windows, which can be purchased for about \$85 per window, said Black.

A solar array

For Hoosiers considering installing an entire solar array for electrical power, Cotton contends that the least expensive and most efficient way is to build a new house. Then, a consumer has more control over critical factors like sun exposure and choosing a territory serviced by an investor-owned utility company, which participates in net metering. Net metering allows homeowners to put the power they don't use — while they are not at home, for example — back into the system, which ultimately means they'll have lower utility bills. "A consumer can build a house to not only complement the solar system, but also incorporate other energy-saving designs like passive solar heating and thermal," he said.



The SunRise 850 solar-powered fans mount on the roof and remove heat and moisture from the attic, reducing energy consumption by making your home easier to cool. The fans run totally from the sun's power — no electricity needed. Photo courtesy Sunrise Solar Inc.

The future looks bright for more Hoosiers to use solar products as people become aware of them and as the state and federal governments institute more economic incentives for using renewable energies, Cotton said. "Additional economic incentives will make even solar electric systems accessible to people who can't afford them today."

Resources:

- ENERGY STAR Program <http://www.energystar.gov/>
- Solar Energy Industries Association <http://www.seia.org/>
- North American Board of Certified Energy Practitioners <http://www.nabcep.org/>
- Great Lakes Renewable Energy Association <http://www.glea.org/>
- Construction Resources Corporation <http://www.crcbuild.com/>
- EcoSource Inc. <http://www.ecosource-inc.com/>
- Green Way Supply <http://www.greenwaysupply.net/>
- ECI Wind and Solar <http://www.eciwindandsolar.com/>

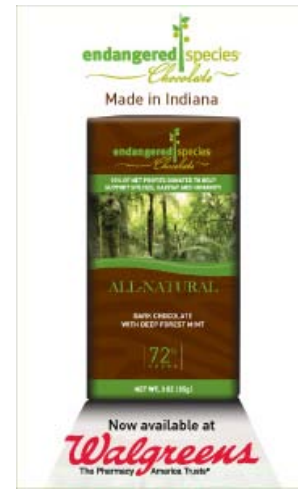
Jennifer Streisand

About the author:

Jennifer Streisand a freelance writer based in West Lafayette, Ind., has written more than 100 business articles and taught undergraduate courses in communications at Purdue University. A former broadcast journalist, she holds an Indiana teaching license in English and journalism.

Related Articles:

- [Squeaky Clean and Green](#)
- [Paint your house GREEN](#)
- [Hot Stuff](#)
- [Recipe for a Deliciously Green Kitchen](#)
- [Made in Indiana](#)



Username

Password

Remember me

[Lost Password?](#)

No account yet? [Register](#)

[Visit A Greener Indiana](#)

[Visit IndyGreen](#)

[\[Back \]](#)

[home](#) | [about ilg](#) | [calendar](#) | [news briefs](#) | [subscribe](#) | [contact us](#) | [opportunities](#) | [ilg blog](#) | [distribution sites](#) | [shop](#) | [site map](#) |

© 2007-2008 Indiana Living Green, Inc. All rights reserved. Content may not be reproduced without permission.