

Everyday is sun day with solar power

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BY BILL CUNNIFF Sun-Times Staff Writer

Kathy Cummings found her place in the sun with her three-flat in the West Town neighborhood on Chicago's North Side. The building uses both solar electric and solar hot water.

A 3.6-kilowatt photovoltaic system was installed in 1999. And the awning-mounted solar hot water system was set up in 2003.

"It was a great deal and not that expensive with the state rebate," Cummings said. "It's nice to help the tenants with free hot water."

The three-flat is one of dozens of residences throughout the Chicago area ready for inspection during the Illinois Solar Home Tour on Saturday.



Cheryl and Gary Bottje received a \$5,000 rebate from the state of Illinois for the installation of their solar heating system.

'Near zero electrical cost'

Naperville homeowners Jim and Kath Camasto say their solar thermal system (co-installed with a high efficiency furnace) cut natural gas use by about 50 percent per year. A solar photovoltaic system cuts electrical use 60 percent.

"We sell our PVs [photovoltaic] clean-energy certificates into Naperville's Renewable Energy Program, netting near zero electrical cost per year," the couple said. "We also fuel a minivan with E-85 [ethanol]."

Lower annual gas bill

Seven 8-by-4-foot solar collectors provide most of the heat for hot water, and they're a secondary source of heat for a radiant floor heating system in Bill and Eleanor Revelle's Evanston house.

"The annual gas bill for our 4,000-square-foot house is about \$1,000," the couple said. Photovoltaic slates on the three south-facing roof surfaces generate 80 percent of their electricity.

"With our PV system and our participation in ComEd's Real Time Pricing and Nature First programs, our annual electrical bill is well under \$400," the couple said.

State rebate

Cheryl and Gary Bottje received a \$5,000 rebate from the state of Illinois for the installation of their solar heating system, IllinoisSolar.org said. Their system was set up in February 2005 in their 2,600-square-foot home in west suburban Roselle.

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"Since the installation, we have consistently used less than half the natural gas therms per square foot than we did prior to the installation," the couple said. "Our total natural gas cost for 2006 was only \$650, and in 2007, it was only \$550.

"Everyone is also welcome to see our rainwater collection system and our all-natural, environmentally friendly linoleum flooring," they said.

'Take care of our planet'

Berwyn homeowner John Janata feels strongly about environmental concerns. "I have always felt that we have a responsibility to take care of our planet," he said. "So I installed the solar." Janata has solar electric, solar domestic hot water and solar space heating. "And I drive a hybrid car," he said.

'Installation was painless'

About 18 months ago, Matt and Lisa Walsh installed 10 solar panels on their house in the Washington Heights neighborhood on the South Side. "We wanted to save energy and fight global warming," the couple says. "Installation was painless. We have saved on our utility bills and we are innovators in our neighborhood."

Power of the sun

The Illinois Department of Commerce and Economic Opportunity, a sponsor of the tour, believes in the power of the sun.

"Many new policy initiatives, both on a state and federal level, will make solar and wind power more available and affordable than ever in Illinois," said Jack Lavin, director of the state agency.

"Solar and other types of alternative and renewable energy can play a critical role in reducing greenhouse gas emissions and providing a hedge against volatile energy prices," said Suzanne Malec-McKenna, commissioner of the Chicago Department of Environment, another tour sponsor.

"Alternative and renewable energy sources provide clean, reliable power, especially during times of peak demand, when energy costs are high and the electrical grid is under the most stress. Solar thermal also helps to reduce our natural gas consumption," she said. That's especially important since Illinois leads the nation in per capita residential consumption."

"We have experienced another year of record high energy prices that impact our household budgets and state's economy, and environmental issues that have not gone away," said Mark Burger, president of the Illinois Solar Energy Association. "There will be no easy or quick answers, and no 'magic wand' that will solve fundamental energy, environmental and economic development issues. Instead, there are thousands, indeed millions, of solutions that will add up to answers, and you'll have the opportunity to see homeowners who demonstrate some of these answers.



Jim and Kath Camasto's Naperville house will be on the Solar Tour Saturday. A solar thermal system, along with a high-efficiency furnace, cuts natural gas use 50 percent.



Kathy Cummings' South Side three-flat uses both solar electric and solar hot water.

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"Illinois has made progress in the encouragement of solar, wind and other forms of renewable energy," he said. "This year is the first that a required portion of our electricity must come from renewable sources.

"Our investor-owned utilities now operate under standard net metering and interconnection procedures which will make installations easier.

"Next year may see a dramatic shift in how our nation supports the development of solar and wind power, reducing pollution, growing new job and business opportunities and improving our energy security

Solar energy - quick facts

- Chicago has almost as much usable sunlight as Atlanta and Los Angeles.
- Leonardo da Vinci envisioned using mirrored solar collectors to heat water.
- Sears Roebuck & Co. sold solar thermal panels, which generate hot water, in its 1905 catalog.
- Chicago is the only U.S. city that manufactures and assembles both solar photovoltaic energy systems (which generate electricity), and solar thermal energy systems (which heat hot water).
- Illinois is one of the top three states in the U.S. in solar thermal installations.
- Homeowners who install small solar and wind energy systems qualify for rebates of up to 30 percent and a federal tax credit of up to \$2,000.
- President Jimmy Carter had solar collectors installed on the White House grounds to heat the residence's water.
- Israel uses solar water heating for 30 percent of its buildings. All new homes are required to install solar water heating systems.

SOURCES: Illinois Solar Energy Association, National Center for Appropriate Technology

ILLINOIS SOLAR TOUR

What: 87 homes (and some businesses) that use renewable energy. Many will be open for interior viewing; some are exteriors only.

When: 10 a.m. to 3 p.m. Saturday, Oct. 4, 2008, all around the Chicago area.

Information: Tour guides are available to download at the Illinois Solar Energy Association's Web site: www.illinoissolar.org/solartour/. Bike routes to some locations on the tour are also listed on the site.

Printed guides with the addresses are available at the Center for Neighborhood Technology, 2125 W. North; Chicago Center for Green Technology, 445 N. Sacramento; Evelyn Pease Tyner Center, 2400 Compass, Glenview.