

'This is the future, this is right now'

Northfield family goes sustainable route in building new Meadowview home

It started with an idea of sustainable building.

Well, it actually started with the torrential rains in 2008 that forced Jane Goldenberg and husband Tom Schwarz, along with their two children, to leave their flooded Northfield home.

While their house sat in the middle of a lake that used to be Meadowview Drive, the family had a decision to make. After much discussion, they chose to rebuild. Not only did the result look nothing like the ranch house they'd bought in 1991, it performed like no other home.

While renting a home in Winnetka, Goldenberg and Schwarz spent more than a year thinking about their rebuilding plans, and Goldenberg said energy efficiency was always a priority.

"We thought, this is the way of the future," she said. "We thought, any new house built should, in good conscious, incorporate the technologies available."

That's where architect Nathan Kipnis and Brandon Leavitt of Solar Service came in.

Kipnis, who has a master's degree in energy conscious design, created a home with sustainability in mind, from the Hardie board siding made from waste wood and cement to the arrangement of windows that maximize natural lighting and ventilation. There are also the Harmon hinges that allow doors to swing into a pocket at a right angle to the door frame, which Goldenberg uses to completely seal off various rooms of the house.

Closed cell foam insulation reduces heating and cooling waste, as do the house fan and clerestory windows.

Kipnis also designed the home for construction on its original foundation and to be built above the floodplain.

"I have this thing about waste," smiled Goldenberg as she sat on a couch saved and restored from the flood.

"I grew up in the period of the '70s energy crisis and the message about not throwing things away really hit me," she continued. "I wish more people would take that in and not just buy new because they can."

"Just because you have a large home and higher budget doesn't let you off the hook," Kipnis put in. "Just because you can afford not to [choose sustainable practices], why wouldn't you?"

Goldenberg and Schwarz went all in on their choice, and a visit to their back yard shows the most visible aspect of their decision.

Atop their south-facing roof are nine 4-by-8-foot thermal solar panels that heat both the home and its water – including the pool.



Northfield resident Jane Goldenberg points out the nine thermal solar panels atop the roof that heat her home and water.

"You can own your energy instead of renting it," said Leavitt, who founded Niles-based Solar Service in 1977.

Leavitt said while many people believe Illinois is not ideal for solar, it actually has as much usable sunlight as Atlanta or Los Angeles.

"The coldest day of the year is usually the sunniest," he said, and added homeowners see 70 percent cuts in their water bills and reduce their heating costs by one-third.

The thermal solar panels work with the home's existing water heater and furnace, and in Goldenberg's case will produce 90,000 gallons of hot water per year. What isn't utilized in water usage goes to heat the floors and outdoor pool.

"At least seven days out of 10 the hot water is free in this house," Leavitt said.

Federal tax credits and state incentives also make solar a more affordable option than most people think, Leavitt said.

"Uncle Sam pays 30 percent of the costs and there's no limit," he said. "The state has incentives that can match, and while the funds are hard to get, we're very good at getting it for our customers.

"Sixty percent is paid for by the government because they want to encourage energy independence, clean energy and American jobs."

Before incentives, a standard two-panel thermal solar water heating system is a \$12,000 investment "for a lifetime supply of hot water," Leavitt said. A larger heat and hot water system is about \$24,000.

While the initial cost may seem great, Goldenberg said she looked at it as adding equity value to her home. And, Leavitt agreed, it's all about priorities.

"The energy crisis is not going to solve itself. Everyone has to do their part and it's not just one thing, it's many things," Leavitt said. "It's a communal effort," Kipnis added.

Goldenberg said she and her husband are glad to share how they incorporated the principles of sustainable design in their new home.

"This should not be some strange outlier way of building," Goldenberg said. "This is the future, this is right now."