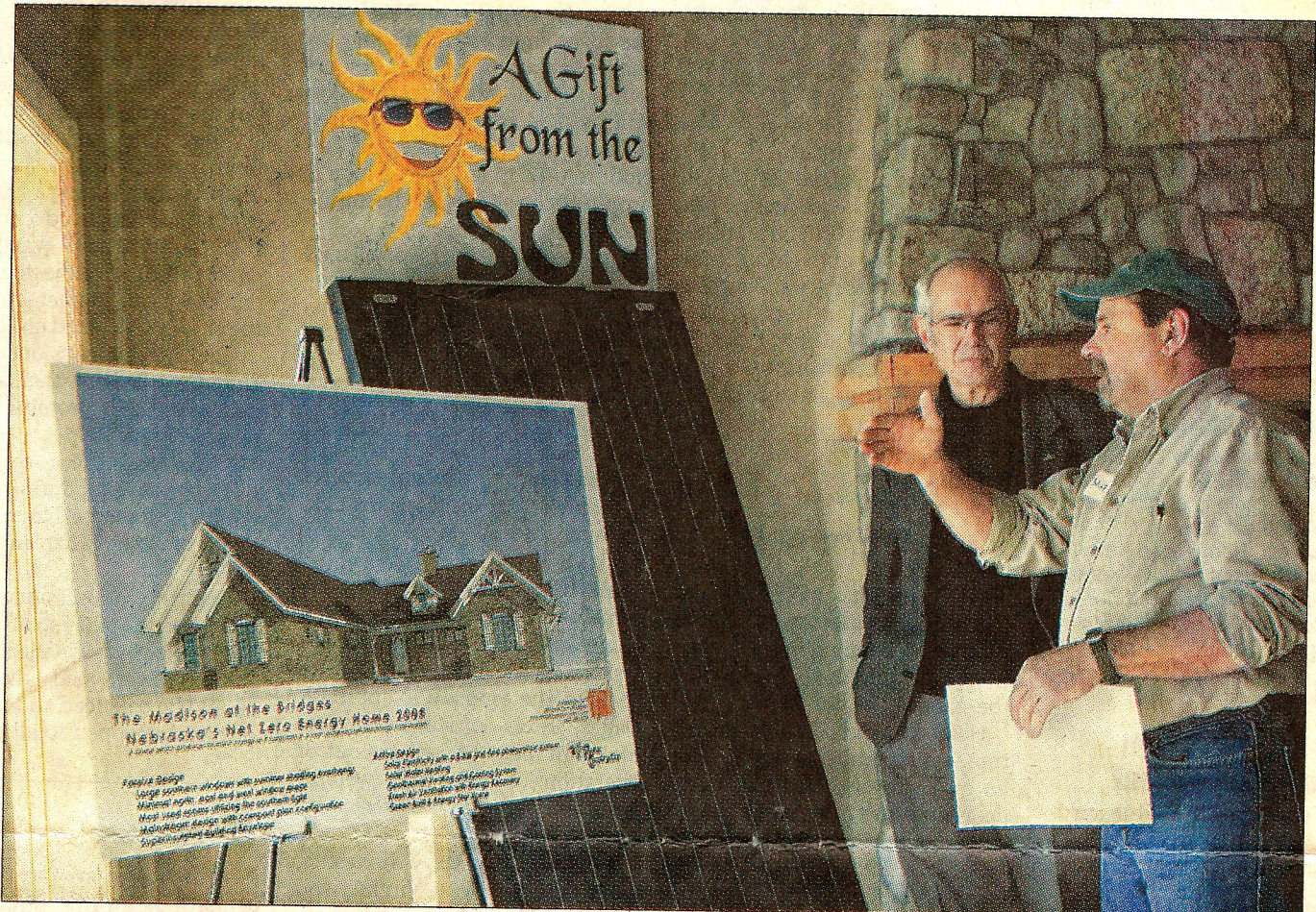


Getting more favorable readings on climate-control gauges is what the net zero energy home is all about.



Energy bills?



Mike Rezac, president of Rezac Construction (right), talks with state Sen. Ken Haar inside the state's first net zero energy home southwest of Lincoln on Thursday.

Photos by ERIN DUERR/ Lincoln Journal Star

A home without them is now a reality.

BY ALGIS J. LAUKAITIS
Lincoln Journal Star

In these tough economic times, it's every homeowner's fantasy: a house with no utility bills.

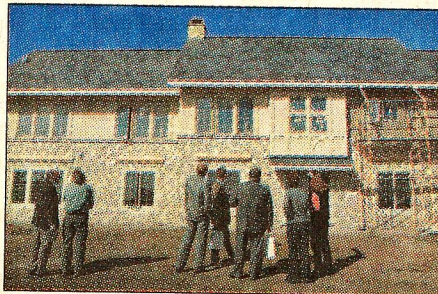
Developer Mike Rezac has built such a home in southwest Lincoln. Well, almost.

"There are no energy bills except for a gas fireplace and a small cooking stove," Rezac said before a large group — including six state senators and other state officials, utility representatives and ministers — that showed up Thursday afternoon to tour Nebraska's first net zero energy home.

Forty solar panels, which soon will be mounted on the roof, will provide the electricity.

A geothermal system, featuring metal pipes and plates sunk into a nearby pond, will heat and cool the home as part of an energy exchange system.

Walls built with two types of foam and a moisture barrier will give the house an in-



Architect Michelle Penn (far right), talks with a group including state officials, builders and ministers outside the state's first net zero energy home southwest of Lincoln on Thursday.

sulation rating ranging from R-25 to R-60.

A passive solar system, with windows and overhangs on the south side of the house, maximizes use of the sun's rays to keep energy costs low throughout the year.

Pollution savings

The state's first net zero energy home not only will save money on utility bills but will help reduce greenhouse gases that contribute to global warming. Here are the estimated annual reductions in pounds:

Carbon dioxide: 33,781

Sulfur dioxide: 109

Nitrogen oxides: 69

Builder Mike Rezac said the home will be in the Spring Parade of Homes. Or you can call him at (402) 477-8844 to arrange a tour.

Source: LES

"It sounds mind-boggling to me — imagine a home that has no utility bills," said Ken Moore, president of Nebraska Interfaith Power and Light, a group that is

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■ Zero

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working with churches and congregations to promote energy efficiency and conservation in an effort to help reduce global warming.

Moore said the utility bill for his century-old home last month was \$300. Now, after seeing Rezac's prototype house, he's wondering what he can do to reduce his own energy consumption.

"I'm envious of the owners of this home," Moore said. "For the next 100 years, they won't be adding emissions to the environment and won't have to pay utility bills."

Rezac said the owners will be able to sell any excess power to the Norris Public Power District, but the intent is not to make money.

"There will be some months when we will overproduce and some months when we will need to buy power," Rezac said. "The goal is for the bill to be zero at the end of the year of accounting."

The energy savings don't come cheap. For starters, the home, dubbed "The Madison," is one of the first houses built in The Bridges, a 70-lot subdivision near Southwest 27th Street.

The price of the home, including the lot, is in the low \$600,000s, Rezac said. The solar panel system alone costs about \$45,000, but Rezac said a typical home could install one for about half that amount.

Michelle Penn, a Lincoln architect who designed the home, said even the east-west layout of the home — with the kitchen, dining room, den and master bedroom on the main floor — takes advantage of the sun's warmth.

"This home is the way we live now," Penn said.

State Sen. Tom Carlson said he was fascinated by the house and found it very appealing. "This appears to be done so tastefully," he said.

Bob Ruskamp, an energy services representative from Lincoln Electric System, said the use of Energy Star and other energy-saving appliances helped keep energy costs low. He estimated that over 30 years, those savings would amount to about \$37,000.

Asked how such an arrangement could help utilities, Pollard replied that there are initial costs to hook up to the electric grid. But "once that is paid for, the energy transfer between us is a good thing because it helps us to reduce coal costs."

Said Rezac: "Basically, you don't have to build a new power plant."

Rezac, who helped write the state's green-built standards for environmentally friendly housing, said all of the energy-saving measures in "The Madison" can be done in affordable housing.

The net zero energy home was developed in partnership with the Nebraska Energy Office, Norris Public Power District, LES and Nebraska Public Power District.

The Energy Office helped arrange a \$500,000 loan through its Dollar and Energy Saving Loan Program, said Bonnie Ziemann, the agency's deputy director. She said the loan will be paid back in full when the home is sold, and the new owners will get a reduced interest rate.

"We're using this home as a training module for other builders and homeowners," Rezac said.

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