# Sun system cuts couple's heat bills

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Staff Writer

**BUDD LAKE** — When Richard and Karen Bonte built their house on Budd Lake Heights Road in 1974 they didn't even think about solar heating.

Now they figure on saving 45 percent of their heating bills and 75 percent of their hot water bills through the system of solar collectors on the roof of the house.

Prompted to install a solar hot water system by a promise of tax breaks from President Jimmy Carter, Bonte discovered the system worked so well that solar heating might work too.

He constructed the collector for hot water in June and saved $175 in electric bills. The heating system has only been in for three weeks, so he isn't quite sure of the saving there.

Doing all the work himself, Bonte spent $750 on the hot water system and $1,700 on the heating system.

The principle is quite simple, he explains. The sun heats water in copper collectors on the roof and the water flows down into a holding tank. The hot water gets up to 155 degrees.

For the heating system, he had to install some copper pipes to channel the heat around the house. If the house had been equipped with hot air or hot water heat rather than electric, the job would have been much easier, he says.

The solar collectors face south to take best advantage of the sun.

Since those for hot water must collect heat all year round, they are tilted to a 40 degree angle for the best average exposure to the sun. Those for the heating system are tilted more sharply to take advantage of the winter sun.

The hot water system can store enough heated water to go through one cloudy day and part of another, but the heating system can't keep heat stored that long.

As soon as the water in the collectors falls below a certain temperature, the conventional heating system switches on. And, in winter, when the temperature in the collector approaches freezing, a switch is activated to drain all the water out of the collector.

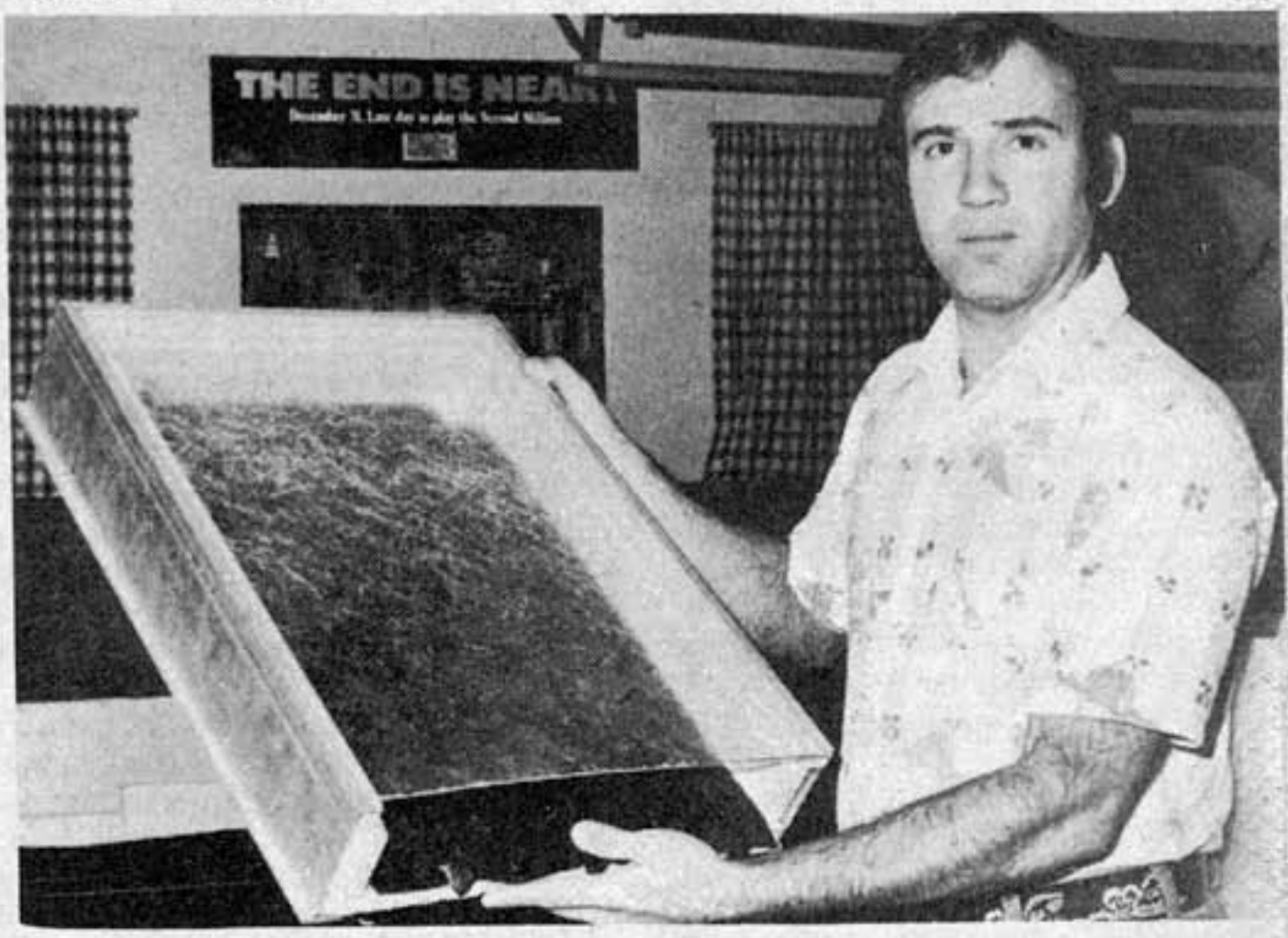
Another use for solar heating, according to Bonte is for swimming pools.

"A lot of people spend $100 a month to heat their pools," he says incredulously. A swimming pool collector should be tilted at a 30 degree angle to take best advantage of the summer sun and may be adapted for winter heat or hot water use, he explains.

After finding the system so successful in his own home, Bonte went into business selling kits for people to build their own systems. Anyone who can solder copper pipe can build one, he notes.

A kit for a hot water system costs $1,100, with instructions. He could install the system for the homeowner, but because it is a simple process and would cost the homeowner more, he prefers not to.

Almost any home can be fitted with a hot water system, but some homes would be difficult to fit with a solar heating system, he explains. He advocates anyone now building a home make it easily adaptable to solar heating, since the cost is only $40 or $50 for some pipe.




**Richard Bonte displays a solar panel**