Richard C. Prusinski inspects one of the new Sol-Ar-Tile panels manufactured by Architectural Research Corp. of Livonia. The tile stores solar energy and is in use at Massachusetts Institute of Technology.



Sol-Ar-Tile panels weigh 43 pounds each. They can release approx tately 465 BTUs of heat over a 10-degree cooling range. As these orkers show, they are easily installed.

Families conserve energy, save money

By ARLENE VANDERLEUN When you're rolling over for a few more moments of early-morning sleep, one Plymouth housewife may be whipping up a cake or popping a roast into the oven—all in the name of energy conservation.

The Ronald Kennedy family of Plymouth is one of 100 Detroit Edison customers taking part in a program sponsored by the utility company to use household appliances during off-peak hours when the demand for elec-tricity is less.

In exchange, the families pay a lower rate for power used during those hours.

The Kennedys volunteered for the Edison program last year and signed up for a three-month period. During that time, one meter registered electricity used during the peak hours from 9 a.m. 9 p.m. Monday through Friday. A separate meter recorded the electricity used during the off hours, 9 p.m. 9 am. Monday through Amonday through the priday is the priday in the priday and on weekends.

At the end of the first period, the Kennedys signed on for an additional

because I do most of my housework during the off hours anyway," said Mrs. Kennedy.

She is now more aware of energy needs. "When I first started, I planned to cook and bake all at the same time to get the most efficient use of my stove," she added.

Now she limits her use of appliances to the specified off-peak period, unless it is an emergency.

"Sometimes I forget and throw a load of clothes into the washer, but then I catch myself," she added with a laugh.

Mrs. Kennedy estimates that the family has saved \$5-10 a month on its electric bill.

Even though Mrs. Kennedy is not employed, she believes the program would be especially beneficial to women who do hold jobs.

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WHILE THE UTILITIES promote conservation as the answer to many energy shortages, research is being

done to find other energy sources. Right now, however, many of these sources are very costly. For example, natural gas can be produced from coal, oil shale and tar sands, said Cook. However, the current cost of extracting the gas may outweigh the energy derived.

Cook predicted that "as our relatively inexpensive finite resources dwindle, we will be bringing more costly but equally usable resources into service."

The director of one energy research association, John Mogk, believes that 'the energy picture is going to get worse before it gets better." On the other hand, he also thinks the country has the technological sophistication to overcome obstacles.

The groups Mogk heads is the Michigan Energy and Resource Research Association (MERRA).

HEADQUARTERED IN Detroit, MERRA is funded by the state, industry and universities. Its goal is to find energy sources that are not exorbitant.

By the mid-21st century, alternate sources could include more use of solar energy, nuclear power and wind

Mogk believes solar power is "not a ready source for industry." One-third of the state's power consumption is tied to industry, he added.

While Mogk thinks solar power is "too expensive right now," a Livonia architectural research company has developed a ceiling tile that stores solar energy that might be available; homeowners in a year and a half, according to the company president.

The tile "is literally a storage bat-tery," said Richard Prusinski, presi-dent of Architectural Research Corpo-ration of Livonia. The tile was manufactured for use in a solar-beated demonstration building at Mas-sachusetts institute of Technology.

sachusetts institute of Technology.

Inside a ceiling tile of lightweight polymer concrete is stored a substance of sodium sulfate, borax and thickening agents. The combination is capable of storing and releasing heat. Used with the tile is a v enetian blind which cups upward, reflecting the sun to the ceiling. Heat is stored in the tile and released as the room cools.

Dever and with a contract power and with contract power comes from nuclear energy, according to Mogic. Saftey problems with nuclear energy, such as health of nuclear plant employees and disposal of nuclear waste have slowed industry plans for more nuclear plants. Wind power may increase. The National Aeronautics and Space Administration (NASA) predicts that some 5-20 per cent of electricity will be produced through wind power by the year 2009.







