

VILLAGE VIEW

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About a year ago, you read in this column that your electric bills had doubled in the past twelve months. Well, they've just done it again. And once more, it's not the cost per-kilowatt-hour that's taking your dollars; it's the fuel-adjustment charge.

A similar sad story applies to your heating bill if you've an oil burner in the cellar. The December, 1978 price of oil-56 cents a gallon; March, 1979- 62 cents a gallon; December, 1979- 87 cents; March, 1980- \$1.05; as recently as December, 1980- \$1.10; March, 1981- \$1.25 or higher.

A quick look at your back bills will confirm comparable increases in gasoline prices in the past two years. Most of us who heard the predictions of two years ago about high energy costs simply didn't believe them. The Law of Supply and Demand would surely control prices. What we weren't counting on were two factors: (1) the steadily-rising cost of imported oil, and (2) the gradual de-control of domestic oil prices. Unlike people in most other countries of the world, for years we've been buying fuel at government-controlled and government-subsidized prices.

Just in the past year, the world price of oil has risen from \$24 a barrel to \$34. Living without oil means living without light, heat, transportation and lots of other incidentals we've come to consider essentials, like everything made of plastic.

Increased cost has generated conservation that no pleas for the welfare of future generations did. Most people, it seems, are "now-oriented"; they respond more quickly to real incentives to secure the future. Having learned this about ourselves, we can now anticipate coming months will bring a groundswell of individual effort toward energy savings.

Solar energy systems become more attractive with each passing day, not because they hold promise for the future, but because they're economically feasible today. You can't run a car on them, but you can heat your water with them, and heating water uses up about one-third of your total annual heating dollars. Savings realized will leave enough to help pay higher gasoline and electric bills.

Solar heat, passive or active, is practical in any home with southfacing walls. Windows on the south let in sunshine, and sunshine supplements fuel-burning equipment. If sunshine falls on a material that absorbs heat and releases it gradually (like tanks of water, or concrete, stone, or brick floors), solar heat helps reduce fuel bills. Of course, it won't keep a house at 70 degrees when it's zero outside; but it will boost inside temperatures enough to keep the furnace from running as often or burning as much fuel.

The same is true of solar wall panels that deliver hot air inside the house when the sun shines on them. These are similar to roof panels used for hot water systems, but work by siphoning cool household air out a bottom vent, across a sun-heated surface, and back into the house through a top vent. The system operates automatically and only when the sun shines.

This doesn't save huge quantities of fuel. One rectangular panel, approximately 4' x 7', delivers the equivalent of 30 gallons of oil a year; at present prices that's \$37.50. Most ranch houses with south walls on the long side could accommodate three or four such panels; that would amount to a saving around \$150 each; there's the initial investment, but once operating, they deliver supplemental heat, winter after winter, indefinitely.

If oil prices continue to rise (and there's nothing to indicate they won't), the sooner we start using "helpers" like solar panels, the sooner we'll cut our fuel use and get our total energy bills back on an even keel.

Solar hot water systems really do work; I know of at least a dozen now operating in the Town of Barnstable, and as one owner told me not long ago, "It's great. No problems, plenty of hot water, and you can't stop it from working. Saved us about \$300 last year. Even more this year, because oil prices are higher. With tax credits, the net cost was about \$1,800, so we figured a six-year payback. We now realize it's going to pay for itself in about four. Besides that, if we wanted to sell, I know we'd more than get our investment out. It's increased the property's resale value, but for 20 years the assessment can't be raised because of the system."

Why more people aren't making the investment, I cannot fathom. Perhaps they're waiting for the utility companies to do it for them. They may have a long wait. Mr. S. David Freeman, Chairman of the country's largest utility, the Tennessee Valley Authority, is one of the few pro-solar utility officers today. Under his direction, TVA has begun financing more than 11,000 residential solar systems in Tennessee to avoid having to build a new power plant within ten years.

He believes utilities have so far resisted investing in solar energy because sunshine falls on us all and promises to undermine the utilities' position as principal producers and distributors of electrical power. It threatens their very existence so they term sunshine an "insignificant source of energy for the near term." "Dinosaurs didn't adjust to changing conditions either," comments Chairman Freeman, "That's why they were wiped out."

Some states are encouraging solar energy installations with tax credits of their own; Massachusetts is one of them. California is another. It's the country's leading state in new solar installations and expects to have 4.9 million solar-heated homes within ten years.

The other "Sunshine State", however, failed to get an energy conservation package through its legislature despite a poll of Florida voters showing 74% approved a constitutional amendment to exempt solar installations from property taxes. "Special interests" (Florida Light & Power has five operating nuclear generating plants, one construction, and two more reactors on order) are credited with blocking the legislation.

Despite the utilities' recalcitrance, however, Florida builders are "going solar" with notable success. One, who will build 2,700 new single-family homes and apartments in western Dade County this year, says, "When people discover solar hot water is a standard feature, their eyes light up."

Sixty-one percent of those surveyed in a poll for the President's Council on Environmental Quality this year said they preferred the sun as their future energy-source. Federal income-tax credits for solar installations have been raised from 30% to 40%. The Iran-Iraq War continues to make world oil supplies unstable; President Reagan favors deregulating oil prices. We're slated for still higher fuel costs.

Solar energy may not yet be technologically perfect or even advanced enough to free us entirely from dependence on fossil fuels, but supplementing with solar can relieve a lot of pressure on our pocketbooks, and that's the sort of pressure Americans are feeling, right now, and that pressure is building. A few ounces of prevention, now, could be worth many pounds of cure, next year, and in the years after that.