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Local Self-Reliance: Alternative Energy for Public Utilities

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By the MOTHER EARTH NEWS editors



Some cities in California implemented environmentally friendly public utilities — and with great results.
PHOTO: FOTOLIA/JOVAN PERIC

The Institute for Local Self-Reliance works to help urban residents gain greater control over their lives through the use of low-technology, decentralist tools and concepts. Because we believe that city dwellers and country folks alike can profit from the institute's admirable efforts, we've made this "what's happening where" report by the ILSR staffers one of MOTHER'S regular features.

Alternative Energy Sources to Power Utilities

Until recently, utilities were pretty much limited to offering gas and electric service, but now there are a few that help people make use of "alternative" energy sources as well.

The municipal solar utility (MSU) concept was originally intended to provide a new approach to financing and marketing solar energy systems. The first one — established in 1976 in Santa Clara, California — came into being when the city-owned electric utility made solar pool heaters more attractive to customers by allowing buyers to spread the purchase price over the term of a lease.

The results so impressed the U.S. Department of Energy that it gave a \$112,000 grant to the California Energy Commission (CEC) to expand the idea. Since 1979, CEC's Barry Saitman has been doing just that. Under his guidance, the MSU program has been given considerable depth and sophistication.

As a matter of fact, even the phrase "municipal solar utility" has now become a misnomer, since one of the first actions taken by Saitman was to broaden the scope of the program. Therefore, "municipal" now applies not only to cities, but also to community organizations, homeowner associations or condominiums, community development corporations, profit-making firms, and special-purpose jurisdictions (such as school, water, irrigation, and housing districts). And "solar" has come to serve as a blanket term for various energy alternatives: conservation, cogeneration, hydro, biomass, wind, and photovoltaics as well as solar hot water systems.

In 1979 small grants were given to six cities — Palo Alto, Ukiah, Santa Monica, San Dimas, Bakersfield, and Oceanside — to take part in the first phase of the program and rarely has so much been accomplished with so little money! Palo Alto has generated almost \$2 million in loans for solar systems and energy conservation measures. Oceanside has attracted more than \$15 million in private investment capital to create a sophisticated solar leasing program. Seven local energy staff positions have been established and nine more jurisdictions have entered the program's second phase since 1981.

But just why do we need MSU's? Well, to begin with, they can provide a form of consumer protection service to ease the fears of people buying into new technologies, help raise capital on better terms than could be done by single homeowners or business people and allow the formation of public/private partnerships that can overcome traditional building regulations that might hamper conservation and solar energy development. MSU's can also help solve the problem of how to deliver sun-energy technologies to low-income families or renters.

The California MSU program has compiled an extensive collection of information about the legal, economic and political possibilities of MSU's. New housing developments are currently using central solar generation arrays owned, in common, by a homeowners' association. Cities are issuing bonds to finance energy conservation and the use of solar technologies.

And, though California is the only state with a formal program that encourages this kind of activity, communities in other parts of the country are getting in on the action as well. For example, the city of Carbondale, Ill., (population 27,000) established an MSU program in January of 1982.

As we noted earlier, municipal solar utility is actually too narrow a term. The concept has grown and changed with the times. And, of course, the roles and functions of traditional agencies are changing, too. Water departments now harness the power of flowing water to create electricity, sewage authorities generate methane gas, sanitation departments burn garbage to produce steam and electricity and office buildings install their own power plants. In the same way, an idea that began with solar pool heaters in one California city today embraces dozens of variations as neighborhoods, homeowners' associations, condominiums, cities and other organizations experiment with new forms to achieve greater energy self-reliance.