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Local Self-Reliance: Home Energy Efficiency

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By MOTHER EARTH NEWS editors

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Improving home energy efficiency goes a long way towards advancing local self-reliance.

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For the past several years, the good folks at the Institute for Local Self- Reliance in Washington, D.C. have worked to help urban residents gain greater control over their lives through the use of low-technology, decentralist tools and concepts. We strongly believe that more people (city dwellers and country folk alike) should be exposed to the Institute's admirable efforts ... which is why we've made this "what's happening where" report by ILSR staffers one of MOTHER EARTH NEWS' regular features.

Over the next few months, a new national program will help many Americans take a hard look at how they use energy in their homes, and will also explain what can be done to cut a household's use of electricity, gas, heating oil, etc. Under the National Energy Conservation Act of November 1978 (which is just now getting into gear), each state is required to design its own power consumption plan. However, although there will be *features* that vary from plan to plan, the goals of them all will be the same: to tell homeowners how they can use energy more efficiently, and to help them finance the investment required to achieve home energy efficiency and cut down on power use.

Success at the Local Level

So far, the best energy conservation efforts have involved governments and citizens working together at the local level. For example, after a study of local power consumption that involved more than 2,000 residents, the city of Portland, Oregon enacted the nation's most ambitious energy conservation law. That plan could save the citizens an estimated 30% of their current energy use by 1995.

And we here at the Institute for Local Self-Reliance in Washington, D.C. are showing how citizens in a big city can work together to cut home energy costs.

An Energy Audit Program

Last March, the Institute began an experimental neighborhood energy audit program in Anacostia ... an area in the southeast section of the nation's capital. In order to measure the results, we selected a four-square-block section of 1,000 households which collectively were consuming 150 billion Btu's of electricity, gas, and oil each year . . . for a combined energy bill of \$700,000.

To run the program, the Institute recruited six previously unemployed neighborhood residents from a local job bank. The crew was then given four weeks of extensive training in building construction and materials, heat transfer, heating and cooling mechanical systems, and solar applications.

A Not-So-Simple Job

Our initial audit proved that there's more to running an energy conservation plan than talking about storm windows and attic insulation. We uncovered a structurally deficient foundation in the very first house that we visited (and it doesn't make much sense to insulate a dwelling that's falling down). Therefore, the auditors put that particular homeowner in touch with a local housing rehabilitation program.

Our team also found that many people were reluctant to spend their hard-earned money on home weatherproofing, even when such an investment would clearly save them cash in the long run. So the Institute prepared a fact sheet on financing (including a lot of private and public loan sources), and the auditors discussed financing possibilities with residents after each inspection. In some cases the auditors were able to convince local merchants to offer discounts on weatherization materials to those families who had received a home energy analysis.

Early Returns

After this winter, the Institute will have some real data on long-term energy savings produced by our project, but there have already been impressive results!

We found that most people in Anacostia, for example, have their water heater thermostats set too high. Simply by turning them down, the 200 audited households were able to save an estimated total of \$2,000 in fuel bills.

Many of the families we visited also discovered some basics about the construction of their homes in the

course of their audits. Some folks, for instance, who live in houses with crawl spaces between the highest ceiling and the roof were surprised to learn such areas existed. Another tenant was shocked to find out that a simple electric fan doubled his electricity consumption at certain times of the day. (He made his discovery after learning how to read the meter as it recorded his home's electric usage.)

Depending on how each state designs its energy plan, community organizations around the country may get a chance to set up auditing projects similar to the Anacostia program. Interested groups should contact their state's energy office to find out how they can help draft their own region's plan.