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# Low Income Weatherization

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Energy Center fact sheet

1/2010

## Background

In 1977, the Missouri Department of Natural Resources responded to the energy crisis of the early 1970s, establishing the Low-Income Weatherization Assistance Program (LIWAP) in the Energy Center. The program provided energy-efficient home improvements to Missouri's low income households, especially those with physical disadvantages, the elderly, children, and others hit hardest by the energy crisis. The program aims to lower utility bills and improve comfort while ensuring health and safety.

In the early years, the LIWAP used volunteer labor and temporary measures. However, changes in federal regulations, technology, and the needs of Missourians have changed the program. Today, professional, trained staff install permanent, cost-effective energy-efficient weatherization improvements.

## Accomplishments

Since 1977, more than 157,000 homes have been weatherized through the LIWAP. In 1997, Oak Ridge National Laboratory reported that the national average annual fuel savings per dwelling is 13.5 percent, with electricity at 12.2 percent and natural gas at 23.4 percent.

## Determining Energy-Efficient Measures

The program uses an energy audit procedure to establish cost-effective weatherization measures. The audit is used to calculate reductions in energy usage and takes into account factors such as changes in the thermal and heat transfer characteristics of a dwelling, appropriate weather data, and economic factors such as fuel and installation costs. Energy auditors gather information and perform diagnostic tests on each home, including blower door tests and, in some cases, infrared thermography. These technologies help detect and locate air leaks, providing opportunities to perform more cost-effective work. Heating systems are also tested for efficiency and safety in low-income housing, and repairs are made accordingly. Energy-efficient measures may include reducing air infiltration; increasing insulation in the wall, attic and floor foundation; a heating system "clean and tune"; heating system replacement; water heater tank upgrade; installation of pipe insulation; and minimal building envelope repairs.

## Rationale for Providing LIWAP Services:

Home heating is a high-cost basic necessity. Low-income households spend 14 percent of their annual income on energy in comparison to 3.5 percent by other households. For people with low incomes, the decision to pay the utility bill may mean deciding between being warm in the winter and eating well-balanced meals. Other low-income people live in older homes that may not have insulation or may have older, less-efficient heating systems. Weatherization is a long-term response to these problems.

Households that have received weatherization services are better able to pay utility bills and reduce arrearages. A home that has been weatherized can reduce average annual fuel savings per dwelling by up to 13.5 percent, with electricity at 12.2 percent and natural gas at 23.4 percent, making it a cost-effective means to help low-income families with their energy bills. Lasting energy-efficient improvements are installed in the home, resulting in lower utility bills year after year. This reduces the amount of assistance needed to pay higher utility bills in low income households.

## **Program Operation**

The Missouri Department of Natural Resources' Energy Center administers funds to 16 regional Community Action Agencies, one City Government and one not-for-profit organization. Allocations to these agencies are based on the percentage of the state's total low-income households within each service area.

The agencies provide weatherization services, training and guidance to eligible clients. Newspaper, radio, television, utility bill bulletins, and other advertising methods are used to publicize the services.

The program saves clients dollars and primes the state and local economy. The agencies use their own crews or contract the work to area businesses. Most products are purchased from state and regional manufacturers. Indirectly, through an economic multiplier effect, weatherization funds are used and reused, stimulating the state's businesses and creating jobs.

To apply for assistance, clients contact their local community action agency. The agency will ask the clients to complete the appropriate forms, which include income documentation to verify eligibility. Once the client is verified as eligible, an auditor from the agency will conduct a preinspection of the home to determine what steps will produce the greatest energy savings. The next step is for the agency crew or contractor to apply the energy-efficient improvements to the home. After the weatherization of the home is complete, a quality control inspector will examine the home for quality of work and completeness. The Energy Center monitors the work of the agencies to ensure state and federal guidelines are followed.

## **For More Information**

For more information about low-income weatherization, contact:

Missouri Department of Natural Resources

Energy Center

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