



# Missouri Low Income Weatherization Assistance Program (LIWAP)

Division of Energy fact sheet

04/2011

## 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 Division of Energy. The program provides cost-effective energy-efficient home improvements to Missouri's low income households, especially the elderly, children, those with physical disadvantages, and others hit hardest by high utility costs. The program aims to lower utility bills and improve comfort while ensuring health and safety. Today, weatherization is the nation's largest residential energy efficiency program.

In the early years, the LIWAP used volunteer labor to install temporary energy saving measures. However, changes in federal regulations, technology, and the needs of Missourians have led to a more holistic approach to residential energy efficiency. Weatherization has evolved into a sophisticated program, which addresses whole-house energy efficiency and promotes a whole-community approach.

## Rationale for Providing LIWAP Services

Home heating is a high-cost basic necessity. Americans spent \$231 billion in 2010 on residential energy according to a 2010 Oak Ridge National Laboratory study. Low income households spend nearly 14 percent of their total annual income on energy. Other households spend only 3 percent of their annual income, on average, on energy. Low income families often cut back on other necessities to pay their energy bills. For people with low incomes, the decision to pay the utility bill may mean deciding between being warm in the winter and eating complete meals. Other low income people live in older homes that may not have insulation or may have older, less efficient heating systems. LIWAP is a long-lasting solution to these problems.

Households that have received weatherization services are better able to pay utility bills and reduce debt. A home that has been weatherized can reduce average annual fuel usage per dwelling by 35 percent for the typical low income home. Weatherization allows for a reduced burden on utility assistance providers, and the energy savings achieved through weatherization allow for the program to be cost effective.<sup>1</sup>

For every \$1 invested in the program, Weatherization returns \$2.51 to the household and society.<sup>1</sup>

- \$1.80 is returned in reduced energy bills
- \$0.71 is returned to ratepayers, households, and communities through:
  - Increased local employment.
  - Reduced uncollectible utility bills.
  - Better health and safety.
    - Reduces heat-related illness and death.
    - Reduces risk of death from home fires due to utility disconnection.

## Program Accomplishments

- Since 1977, nearly 170,000 Missouri homes have been weatherized through the LIWAP.
- Weatherization reduces residential and power plant emissions of carbon dioxide by 2.65 metric ton/year per home.<sup>1</sup>
- Weatherization decreases national energy consumption by the equivalent of 24.1 million barrels of oil annually.<sup>1</sup>
- Weatherization saves \$437 per house in heating and cooling costs annually at current prices.<sup>1</sup>

## American Recovery and Reinvestment Act of 2009 (Recovery Act) Accomplishments

- The Missouri weatherization program has grown from administering approximately \$6 million per year in funds to approximately \$128 million over the Recovery Act grant period from 2009-2012.

- Approximately, 9,044 homes weatherized with Recovery Act funding as of Feb. 2011.
- The Recovery Act allows the state to weatherize nine times the number of homes prior to the Recovery Act funding.
- Assistance level per household cap increased from \$2,500 to \$6,500. This increase allowed for more energy efficiency upgrades per applicant.
- The Recovery Act increased the income limit for applicants from 150 percent to 200 percent of the federal poverty guidelines.
- The Recovery Act increased percentage of funds used for training and technical assistance from ten percent to 20 percent.
- More than 585 Missouri jobs have been created or retained with Recovery Act funding.
- Nationally, more than 15,000 jobs have been created from Recovery Act funds through Dec. 2010, making the Weatherization Assistance Program the eighth highest job creating Recovery Act program.<sup>2</sup>
- Missouri has expended \$52.6 million in ARRA funds as of Feb. 2011.

### **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 infrared thermography. These tests help detect and locate air leaks and other weaknesses in the building envelope, providing opportunities to perform more cost-effective work. Heating systems are also tested for efficiency and safety, and repairs are made accordingly. Energy-efficient measures may include:

- Reducing air infiltration.
- Increasing insulation in walls, attics, and floor foundations.
- Heating system replacement or repair.
- Refrigerator and CFL replacement.

### **Program Operation**

The Missouri Department of Natural Resources' Division of Energy administers funds to a network of 18 subgrantees. Annual 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 applicants. The program saves applicants money and stimulates the state and local economy. The agencies use their own crews or contract the work to area businesses. Most materials and products used in the weatherization process 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, applicants should contact their local community action agency. The agency will ask the homeowners to complete the appropriate forms, which include income documentation to verify eligibility. Once the applicant is verified as eligible, an auditor from the agency will conduct a pre-inspection of the home to determine what steps will produce the greatest energy savings. The next step is for the agency crew of 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 Division of Energy monitors the work of the agencies to ensure state and federal guidelines are followed.

Sources:

<sup>1</sup> ORNL/TM-2010/66, EIA February 2010 Short Term Energy Outlook.

<sup>2</sup> 1512 Reports as reported by recipients. To access these reports, visit [www.recoveryact.gov](http://www.recoveryact.gov)

### **For More Information**

For more information about low-income weatherization, contact

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