WEATHERIZATION ASSISTANCE PROGRAM

# A Foundation for Energy Efficiency in South Carolina

The Palmetto tree holds a unique place in South Carolina's history and culture. The spongy wood was used to construct Fort Moultrie in 1776, and the logs effectively smothered British bombs before they could explode. The Palmetto remains an important cultural icon, emblazoned on the State flag; however, it is rarely used in construction today. South Carolina homes are built to maximize ventilation and minimize sun exposure, to provide relief from intense heat and humidity. Despite these architectural nuances, many families are unable to adequately cool and heat their homes. Low-income households are particularly vulnerable to changes in weather and energy costs. To address this situation, South Carolina partners with the U.S. Department of Energy (DOE) to implement the Weatherization Assistance Program (Weatherization). Weatherization reduces energy costs for low-income households by increasing the energy efficiency of their homes, while ensuring their health and safety.

South Carolina's Office of Economic Opportunity administers the state's Weatherization Program and a network of nine local agencies delivers energy efficiency solutions to every county in the state. Since the inception of the program in 1976, Weatherization has reduced energy costs for over 30,000 South Carolina households.

Professionally trained crews use computerized energy audits and advanced diagnostic equipment, like a blower door, to determine the most cost-effective energy efficiency measures appropriate for each home. South Carolina crews also test heating units for carbon monoxide, an odorless, colorless gas that can be deadly in large concentrations.

Typical weatherization services include installing insulation and mitigating heat loss through windows, doors, and other infiltration points. Clients are also educated on the proper use and maintenance of the installed measures.

| NATIONAL WEATHERIZATION PROGRAM | |
|---|---|
| Homes weatherized in 1999 | 68,000 |
| DOE allocations in 1999 | $135 million |
| Average annual energy cost savings per household | $300 |
| Average space heating savings | 25-30% |
| Energy benefits returned for every $1 invested | $2.10 |
| Jobs supported | 7,000 |

| SOUTH CAROLINA | |
|---|---|
| Homes weatherized in 1999 (with DOE $) | 407 |
| DOE funding in 1999 | $1 million |

Before weatherization, Vera Barton* was considering moving into a nursing home. The summer heat was exacerbating her respiratory problems, and her two air conditioners provided little relief. Charleston County Human Services Commission helped Vera remain in her home by installing extensive energy efficiency measures. Vera remarked, "[Weatherization] made a big difference. Now I can keep the right temperature, and I can breathe a lot better... I sure am glad the people came and helped me out."

## BUILDING WITH NEW RESOURCES

South Carolina expands Weatherization Program capabilities by developing creative partnerships. Project SHARE, a collaboration between Weatherization and South Carolina Electric and Gas, uses donated funds from the community to purchase materials, like insulation and weatherstripping, to help low-income customers with emergency energy assistance. Weatherization crews install the materials to increase the energy efficiency of the home. Project SHARE weatherizes about 400 homes per year.

Joseph Gray* often donated to Project SHARE; however, he never realized how effective the program was until he needed assistance. After receiving weatherization services, Joseph commented, "It made a big difference in my electric and gas bills. It will certainly make it easier for me."

***South Carolina uses the blower door to identify and mitigate air infiltration.***

## DOORWAY TO ENERGY SAVINGS

Weatherization provides long-term solutions to energy problems for low-income households. These measures save money and energy and they help individuals become self-sufficient. During Sally Parker's* one-month stay at an extended care facility, vandals damaged the doors and windows of her home. Desperate to return to her home, she contacted Aiken/Barnwell/Lexington Counties Community Action Commission for help. The Weatherization crew replaced the destroyed doors and windows. They also installed insulation and a new thermostat. Before weatherization, Sally's winter energy bills averaged $210 per month, which depleted her $490 monthly income. After weatherization measures were installed, Sally's energy bill decreased by 65%, yielding an energy bill of only $74 in January.

Laverne Johnson* saw her utility bill cut in half following weatherization. She noted, "I can turn my air conditioner on low...and it keeps me comfortable." The reduction in energy costs and improvement in comfort make a big difference in Laverne's standard of living.

Communities also benefit from weatherization work. Weatherization reduces energy costs for low-income families and helps them become more self-sufficient. This benefits the community by keeping dollars in the local economy that would typically be exported out to pay for energy. Every $1 retained in the community produces an estimated $3 in multiplier benefits. Weatherization also creates jobs for energy professionals and materials suppliers.

Reducing residential energy demand decreases electricity generation and avoids emissions of nitrogen oxides, sulphur dioxide, and other pollutants. This improves local air quality and reduces adverse health effects, particularly asthma. Weatherization measures also mitigate residential and power plant emissions of greenhouse gases. Weatherization reduces annual carbon dioxide emissions by an average of one metric ton per weatherized home.

## WEATHERIZATION WORKS!

Weatherization produces an impressive range of benefits for low-income households and communities. Nationally, for every $1 invested in the program, Weatherization returns $2.10 in energy-related benefits. Weatherization reduces national energy consumption and curbs demand for imported oil. Weatherization works for South Carolina and America!

**Names have been changed to protect the privacy of the subjects.*

Weatherization Works

**TO LEARN MORE ABOUT THE WEATHERIZATION ASSISTANCE PROGRAM, CONTACT:**

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Visit the Weatherization Web site at: www.eren.doe.gov/buildings/weatherization_assistance
or call the Energy Efficiency and Renewable Energy Clearinghouse at: 1-800-DOE-3732

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