Cold winters and hot summers, compounded by volatile energy prices, can eat up a household’s budget, especially low-income families who shoulder a disproportionate energy burden. Low-income families typically spend 14% of their total annual income on energy, compared with 3.5% for other households. Weatherization alleviates this burden by reducing home energy consumption, which provides a boost to the household’s budget.

**SOARING TO NEW LEVELS OF ENERGY EFFICIENCY**

Airplanes have changed considerably since the Wright Brothers’ first model, the “Flyer.” Through research and innovation, man has learned to reach new heights at faster speeds. Over the years, Weatherization has expanded its capabilities to become the nation’s core program for delivering energy efficiency services to low-income Americans.

Weatherization crews use a computerized energy audit to determine the most cost-effective measures for each home. Additional diagnostic tools, like the blower door, are used to identify and mitigate air infiltration and pressure imbalances. Crews also test gas furnaces and appliances for carbon monoxide, an odorless, colorless gas, which can be deadly in large concentrations.

**Typical weatherization measures include installing insulation, sealing air leaks, and basic heating repairs. Clients are also educated on the proper use of the installed measures.**

As a new millennium begins, North Carolina’s Weatherization Program charts a course for Weatherization Plus, the next level for the program that will expand its focus to whole-house energy usage and whole-community efforts. The goal of Weatherization Plus is to achieve more energy cost savings for low-income homes.
North Carolina takes pride in its professional and highly technical crews. The state motto “To be, rather than to seem,” aptly describes the dedicated attitude of weatherization crews who work to solve complex energy problems. Weatherization crews receive technical training at national conferences, regional training centers, and in the field. In addition, “cluster training” will be added to the weatherization curriculum in North Carolina to address the state’s diverse geographical landscape. This type of training focuses on measures specific to different environmental zones, like the coast and mountains, to enhance their effectiveness.

**Charting a Course to Success**

Creative partnerships enhance the Weatherization Program’s capabilities and services. In North Carolina’s push to expand its community role, the state has deployed an innovative partnership between DOE and the Federal Emergency Management Agency (FEMA) through the state and local weatherization agencies. This partnership addresses disaster mitigation and relief. While installing weatherization measures, crews reinforce the home’s resistance to torrential rain, high winds, earthquakes, and fires. In the event a disaster should occur, the house will be able to buffet the blow and the weatherization measures will not be lost. Due to the success of this partnership, DOE and FEMA plan to expand this program nationally.

**Flying High on Benefits**

Installing weatherization measures into a home saves energy and produces significant economic benefits. Weatherization also improves health and safety conditions. Reva Allen*, a disabled, elderly client from Mars Hill, had numerous problems with her home. Living on a fixed income, it was difficult to pay for the necessary maintenance to keep her home warm in the winter. Reluctant to leave her family home, Reva called The Opportunity Corporation for a solution.

When the weatherization crew arrived, they were immediately concerned about the faulty woodstove Reva used to heat her home. After conducting an audit, they found the windows and doors had massive air leaks and the house lacked adequate insulation. The crew repaired doors, replaced windows, and insulated the entire house. In addition, the woodstove was replaced with a new furnace. Today, Reva lives in a safe, warm home.

**Weatherization Works!**

The Weatherization Program creates significant benefits for low-income households and communities. Nationally, Weatherization creates $2.10 in energy-related benefits for every $1 invested in the program. Weatherization reduces national energy consumption and curbs demand for imported oil. As the Wright Brothers’ first flight sparked a revolution in transportation, Weatherization is cultivating a new outlook on energy use and revolutionizing homes to be more energy-efficient. Weatherization works for North Carolina and America!

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