

Weatherization Keeps Washington Green

Known as “The Evergreen State,” Washington is home to abundant evergreen forests. Due to their long life span and year-round pine needle exposure, evergreen trees are vulnerable to air pollution from power plants, automobiles, and other energy users. So, when energy consumption declines, evergreen trees thrive. The benefits of energy efficiency extend far beyond Washington’s forests. Low-income families and communities thrive with energy efficiency. Washington partners with the U.S. Department of Energy’s (DOE) Weatherization Assistance Program (Weatherization) to reduce energy costs for low-income households by increasing the energy efficiency of their homes, while ensuring their health and safety.

Low-income households typically spend 14% of their total annual income on energy, compared with 3.5% for other households. Rising energy prices compound this burden. Low-income families often cut back on other necessities to pay their energy bills. Weatherization reduces home energy consumption, which provides a permanent boost to the household’s budget.

GROWING STRONG

Washington’s Department of Trade and Economic Development administers the state’s Weatherization Program and 26 local agencies deliver services to eligible residents in every county. Professionally trained crews use a computerized energy audit to determine the most cost-effective measures for each home. Additional diagnostic tools, like the blower door and manometer, are used to identify and mitigate air infiltration, duct leaks, 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 services include installing insulation; duct sealing; and performing basic heating repairs. Clients are educated on energy saving tips and how to maintain 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

WASHINGTON

Homes weatherized in 1999 (with DOE \$)	1,384
DOE funding in 1999	\$2.6 million
Clients served in 1999	968
Elderly	29%
People with disabilities	30%
Families with children	41%

Washington has implemented an innovative approach to technical training, called the Peer Circuit Rider (PCR). This model gears training to a specific agency and takes into account local climate, geographic conditions, and housing type. PCR strives to ensure statewide consistency of the quality of services delivered.

Washington has a long and successful history of leveraging core DOE funding to secure additional dollars from the state and utilities. In 1999, Washington leveraged \$9 million to weatherize more low-income homes and install additional measures in the homes.

HOPE TAKES ROOT

The Weatherization Program embodies the state motto "Al-ki," which comes from the Chinook language and means "hope for the future." Weatherization creates hope by giving low-income families a hand-up, not a handout. For Chris and Carla Tabler*, weatherization provided a warm and safe home for raising their children.

The Tablers saved every penny to buy a small house near a good school for their three small children. After moving in, they discovered the home was nearly impossible to keep warm. After paying exorbitant energy bills, the Tablers called Pierce County Community Services for help with their energy problems.

The weatherization crew identified massive air leakage throughout the house. The house lacked adequate insulation and the windows and doors were cracked. Even more serious, the crew discovered dangerous levels of carbon monoxide leaking from the furnace. They installed a new furnace, lined the attic with insulation, wrapped the pipes and ducts, and sealed the doors and windows.

Helen McPaul's* monthly electric usage declined by 31% after weatherization. This translated into a savings of \$63 per month, money which Helen can use to buy food and medicine. Weatherization benefits extend beyond measurable dollar savings for many individuals. One elderly client remarked, "I can play games with my grandchildren on my warm and cozy floor." Another client wrote a letter of praise stating, "Because of Weatherization, I have the use of my whole mobile home instead of just heating the bedroom."



Photograph courtesy of Skagit Valley Herald

The Housing Authority of Skagit County provided extensive weatherization services for this family and leveraged resources to perform structural repairs.

A FOREST OF BENEFITS

Weatherization creates a broad range of benefits for communities as well. By reducing energy bills for low-income families, weatherization keeps money 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. The program creates jobs for energy professionals and contractors.

In addition, 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 or one-third the emissions of an average automobile.

WEATHERIZATION WORKS!

Weatherization produces an impressive range of energy, economic, and environmental benefits for low-income households and communities. Nationally, for every \$1 invested in the program, Weatherization returns \$2.10 in energy-related benefits. Weatherization measures reduce national energy consumption and curb demand for imported oil. Weatherization works for Washington and America!


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

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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