

State of Washington
2009
Low-Income Home Energy Assistance Program
Weatherization Waiver Request

The State of Washington Department of Community, Trade and Economic Development (CTED) is petitioning the United States Department of Health and Human Services (HHS) to waive the maximum percentage limits placed on funds used for weatherization within the Low-Income Home Energy Assistance Program (LIHEAP). Authority to request a waiver appears in the July 6, 1982 Federal Register 47 FR 29472 Part 96 of Title 45 of the Code of Federal Regulations as amended, with final rules published May 1, 1995 in 60 FR 21322.

The statute provides that, after reviewing a grantee's waiver request and public comments, HHS may grant a waiver if it determines that:

1. The number of households in the grantee service population that will receive LIHEAP benefits during the fiscal year will be greater than the number that received benefits in the preceding year.
2. The aggregate amount of LIHEAP heating assistance, cooling assistance, and crisis assistance benefits that will be received during the fiscal year will not be less than the aggregate amount received in the preceding fiscal year.
3. Weatherization activities have demonstrated measurable savings in energy expenditures.

The State of Washington waiver request addresses and meets all three of these criteria.

COMPARISON OF HOUSEHOLDS SERVED AND BENEFITS RECEIVED

FY 2008 LIHEAP Regular + Contingency Grant Award

Total Grant Award	\$43.6 million
Energy Assistance	\$37 million
Households Served	68,023 (actual)

FY 2009 LIHEAP Regular + Contingency Grant Award

Total Grant Award	\$81.7 million
Energy Assistance	\$68.1 million
Households Served	120,000 (estimate)

The number of households served with Energy Assistance Program services will not decrease as a result of this waiver being approved.

Increasing the allocation from 15% of FY 2008 \$43.6 million to 25% of FY 2009 \$81.7 million will not result in a decrease in the number of households assisted; in fact 87,268 households have been served in the first 8 months of FY 2009 – 19,245 more than the total served in FY 2008.

Fifteen of 27 Energy Assistance Program contractors are considering requesting a waiver to transfer up to 25% of their funds to the Weatherization Assistance Program, a total of \$2,819,750. The approved request of this waiver will increase Weatherization funding from 15% to 18.45%.

WEATHERIZATION MEASURES AND RESULTING SAVINGS

Home Energy Audit

All homes receive a comprehensive, on-site, home energy audit prior to receiving weatherization services. Trained and qualified auditors conduct the audits. Auditors are certified as a Building Analyst 1 by the Building Performance Institute (BPI).

CTED's "*house-as-a-system*" approach to comprehensive home energy audits consists of the following elements (as applicable):

- If available, review the household energy usage pattern from a 12-month billing history.
- Complete visual assessment of existing conditions and insulation levels – note any health and safety concerns.
- Note fuel types, condition and size of space and water heating equipment – designate primary and secondary heat sources.
- Measure the residence for the volume of the living space and square footage of the building envelope.
- Ask the occupant about building characteristics which may be helpful in developing a work plan (e.g. asking if there are any particularly drafty areas), and assess lifestyle considerations.
- Perform a fan-door test.
- Conduct pressure diagnostic tests of HVAC system and building zones.
- Perform combustion safety tests.
- Conduct client education, noting opportunities to provide low cost base load measures. Contractors provide consumer conservation education to all weatherization participants. Curriculum consists of an energy bill review, home energy tour, basic energy conservation tips, and development of a family energy-saving action plan.

Using this information as a basis, a scope of work is developed combining the use of a computerized energy audit (TREAT), the Priority List of Weatherization Measures, and CTED procedures governing Health and Safety, Air Sealing, Pressure Diagnostics, and Repairs. Local agencies are required to review a weatherization-specific scope of work with all clients receiving weatherization services.

TREAT Computerized Energy Audit

TREAT (Targeted Residential Energy Analysis Tools) is the authorized energy audit tool used in the weatherization program. It is required for analysis of multi-family homes (five or more units) and may also be used for single-family houses and mobile homes.

CTED expects local agencies to calculate and maintain current costs for materials, labor, and fuels to be used in the TREAT auditing process.

Local agencies are responsible for ensuring that all staff performing computerized energy audits acquire and maintain proficiency using TREAT. CTED provides introductory and advanced TREAT training through the Building Performance Center, Washington's training and technical assistance provider.

Priority List of Weatherization Measures

CTED created the Priority List of Weatherization Measures using the computerized energy audit on single-family buildings, including a variety of building characteristics and configurations, fuel types, and various climactic regions of the state. The Priority List reflects those measures for which an average savings-to-investment ratio (SIR) of greater than 1.0 was established.

Measures not included in the matrix must be justified by the TREAT audit, which result in a SIR of 1.0 or greater, or through special authorization by CTED. The most cost-effective measures as determined by TREAT or the matrix shall ordinarily be installed. Any variation from this measure selection process must have written justification documented in the client file.

Air Sealing and Pressure Work

Applicable cost-effective air sealing is a high-priority service. TREAT can be used to determine air infiltration reduction cost benefits and is used in conjunction with the CTED Blower Door and Air Sealing Procedures and the Duct Pressure Test Procedures.

Cost Effectiveness of Weatherization in Washington

Washington State University completed an evaluation of the Washington State Weatherization Assistance Program in 2008. Oak Ridge National Laboratory conducted the previous evaluation of Washington's program in 2001, which placed Washington "in the top one-third nationwide in terms of program-induced energy savings compared to the savings achieved by other states." The purpose of the 2008 evaluation was "to identify and document the benefits provided by the Weatherization Program and to give feedback to the Housing Division and local agencies for improving the quality and effectiveness of program services." It also aimed to lay the groundwork for "a regular and consistent evaluation process for the Weatherization Program."

The evaluation used a combination of information from Washington's program and the results from other evaluations of low-income weatherization programs throughout the country to develop estimates of program benefits. Program costs were estimated from data on

weatherization measure costs from the ten largest weatherization agencies, and administration and program operations costs (excluding measure costs) from Washington's Housing Division.

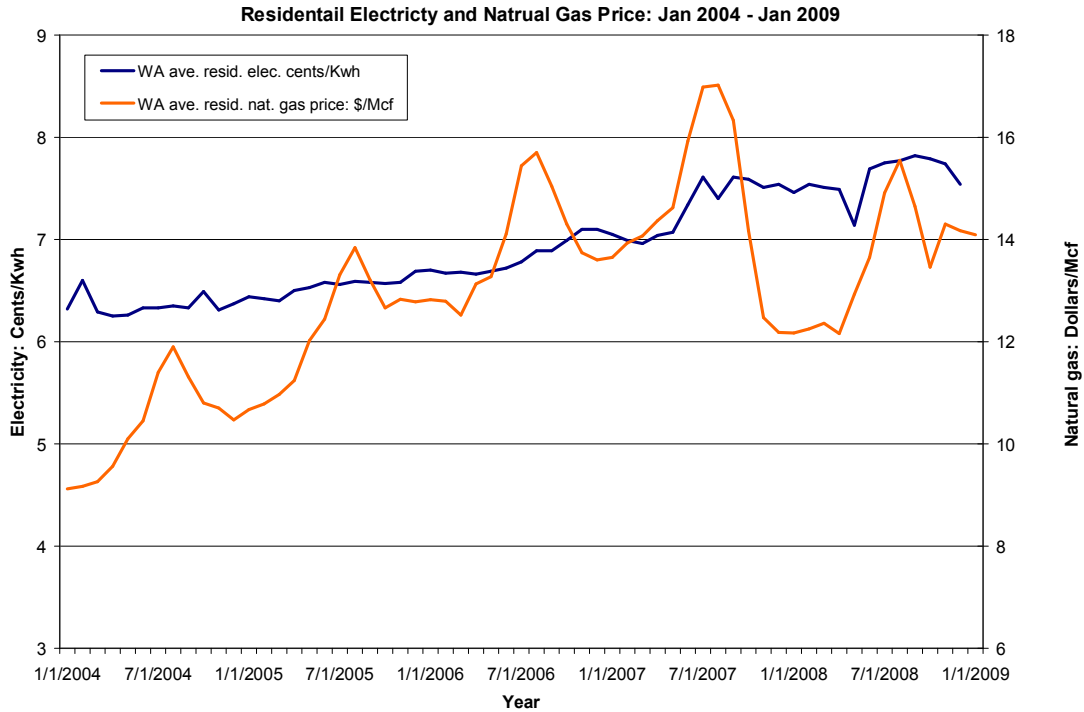
Program evaluation verified long term client benefit from weatherization, achieving energy savings of 19 to 34 % per year. In addition, evaluations have shown for every dollar invested as much as \$1.30 or greater return.

In addition to energy savings, evaluation results show the program delivers other significant benefits; "The program also supports broader social goals by preserving affordable housing, reducing the need for homelessness support services and energy assistance, improving the local economy by providing jobs to implement the weatherization improvements, decreasing greenhouse gases and the other environmental impacts of electric power generation, and reducing the need for new electricity generation facilities."

OTHER FACTORS SUPPORTING THE WAIVER REQUEST

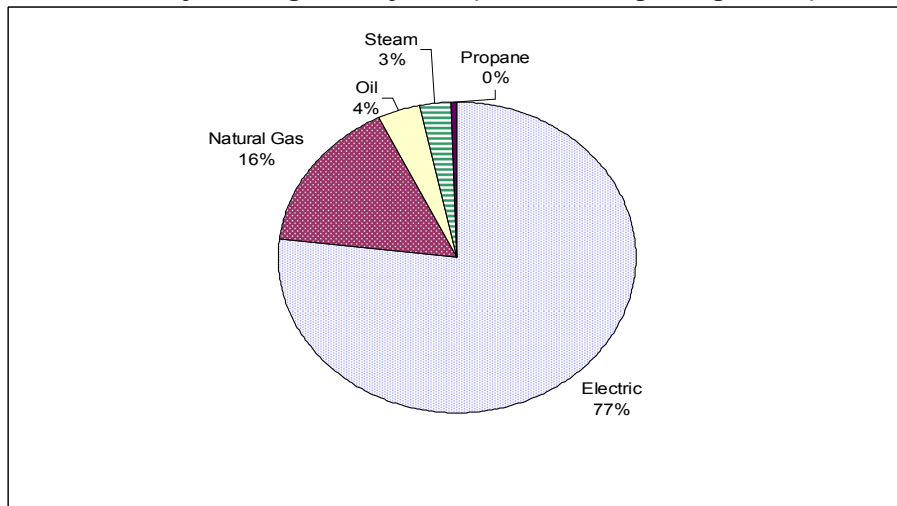
According to CTED's Energy Policy Office, the Northwest Power and Conservation Council's "Sixth Northwest Electric Power and Conservation Plan", due for release July 2009, will likely forecast an average annual increase in real electricity rates in the Pacific Northwest of 1.5% per year (adjusted for projected inflation) over the next 20 years. Soft markets in commercial, industrial, and wholesale power markets will shift a greater percent of the utilities fixed cost to the remaining rate payers, including residential. Natural gas prices are expected to be low in the near term as a result of the economic slowdown, but begin to rise again and reach 2007-2008 levels in the long term when the economy recovers and supply and demand are more in balance.

Bonneville Power Administration (BPA) sells power to utilities that serve over 50% of Washington's residential customers. After several years of declining rates, BPA rates are trending upward. BPA will likely propose a wholesale rate increase of at least 5% for the period starting October 1, 2009 when it files its opening brief in the current rate case, resulting in retail electric rate increases for many Washington households. The proposed rate increase will be structured as the lowest prudent increase with mechanisms built in to the final rate structure that will push rates further upward if economic and water conditions turn negative.



According to the Department of Energy’s Energy Information Administration, and as illustrated in the chart above, the retail price for residential natural gas and electricity continue to be above historical levels.

Primary Heating Fuel by Unit (2006, ten largest agencies)



According to the “Washington State Low-Income Weatherization Program Evaluation Report for 2006”, and as illustrated in the chart above, “More than three-quarters of the housing units weatherized in 2006 were electrically heated...” “Washington State has a higher prevalence of electric heat than many other parts of the country. Multi-family units and mobile homes were predominantly electrically heated (90%), while single-family site-built homes were almost evenly split between electric and natural gas heat (42% and 44% respectively) with most of the remainder oil heat (13%).”

		Average	Median	25 th Percentile	75 th Percentile	95 th Percentile
Not LIHEAP elig.	Est FY 08 En. Burden	4%	4%	2%	5%	9%
	Est Res'l energy Bills FY 08	\$2,356	\$2,123	\$1,499	\$2,943	\$4,698
	Est Heat Bills FY 2008	\$1,007	\$856	\$512	\$1,301	\$2,355
LIHEAP elig.	Est FY 08 En. Burden	17%	11%	7%	18%	54%
	Est Res'l energy Bills FY 08	\$1,864	\$1,648	\$1,068	\$2,443	\$3,867
	Est Heat Bills FY 2008	\$817	\$645	\$360	\$1,090	\$2,101
U.S. ALL	Est FY 08 En. Burden	8%	5%	3%	8%	25%
	Est Res'l energy Bills FY 08	\$2,201	\$1,978	\$1,335	\$2,786	\$4,481
	Est Heat Bills FY 2008	\$947	\$791	\$462	\$1,241	\$2,267

The report “The Burden of FY 2008 Residential Energy Bills on Low-Income Consumers”, published by Economic Opportunity Studies, states the national average estimated FY 2008 energy burden for LIHEAP eligible households is 17%, compared to the 4% energy burden of households not eligible for LIHEAP assistance (Table 3). In addition, the report states that “efficiency investments” are among the most common “tools other than direct payment assistance [that] can contribute to relieving energy burden.”

**Table II-3
Low-Income Energy Burden**

Poverty Group	Energy Burden > 5%		Energy Burden >10%	
	# of Households	% of Households	# of Households	% of Households
≤125%	251,636	72%	158,004	46%
126% - 150%	51,371	52%	14,705	15%

In its 2007 “Washington State Energy Needs Final Report”, Applied Public Policy Research Institute for Study and Evaluation (APPRISE) reported that Roger Colton of Fisher, Sheehan, and Colton suggested using 6% of income as the standard for affordable energy burden after researching national shelter costs and energy bills. APPRISE used similar research to define high energy burden as 11% of income.

According to the report, 14% of households in Washington have an income below 125% of the federal poverty level. As shown in Table II-3, 72% of this population has an energy burden

greater than 5%, with 46% of these households spending more than 10% of their income on energy bills. Given Roger Colton's standard for affordable energy burden at 6% of income, 72% of Washington's most vulnerable households are extremely close to or surpass the ability to afford their energy bills.

APPRISE concludes their report by recommending strategies for meeting the needs of low-income households in Washington; among these strategies is continued supplementation of WAP/LIHEAP energy efficiency funding with matching funds from local utility companies. They also recommend coordinating bill payment assistance programs with energy efficiency programs.

WAIVER REQUEST

The State of Washington Department of Community, Trade and Economic Development requests a Standard Waiver from the United States Department of Health and Human Services to allow an additional 10% to exceed the 15% maximum transfer allowable for weatherization. Approval of the Waiver will allow Washington State to allocate 25% of its LIHEAP funds for weatherizing the homes of its most vulnerable households.