The State of Washington Department of Commerce (Commerce) 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, HHS may grant a Standard Waiver request if it determines that the grantee (Commerce):

1. Meets the three criteria in paragraph (c)2;
2. Provides all required information required by paragraph (c);
3. Shows adequate concern for timely and meaningful public review and comment; and
4. Proposes weatherization that meets all relevant requirements.

The State of Washington’s Standard Waiver request addresses all four of these criteria. We begin by asking HHS for a transfer of up to 25 percent of available LIHEAP Energy Assistance Program funds to the Weatherization Assistance Program. Next, we report the number of households served and benefit dollars disbursed during Federal Fiscal Years 2014 and 2015, as well as provide documentation in support of a Standard Waiver. We then report on weatherization services provided and summarize measureable savings in energy expenditures directly attributable to weatherization services in Washington State. We conclude the waiver summarizing additional factors that support our request.

**Percent of Allocation Transferred to Weatherization**

45 CFR 96.83(c)(1)

Commerce is requesting a waiver to transfer up to 25 percent of available LIHEAP Energy Assistance Program funds to the Weatherization Assistance Program. Approval of this waiver request will increase weatherization funding by $5.63 million and increase the waiver transfer from 15 percent to 25 percent.

HHS approval of the full 25 percent brings all potential LIHEAP dollars to Washington State, providing an opportunity for agencies to enhance their programs and existing funding. Commerce is committed to maintaining a local option for use of transfer amounts.
Comparison of Households Served and Benefits Received

**FY 2014 LIHEAP Regular + Contingency Grant Award**
- Total Grant Award: $57.2 million
- Energy Assistance: $46.8 million
- Households Served: 73,728 (actual)

**FY 2015 LIHEAP Regular + Contingency Grant Award**
- Total Grant Award: $56.3 million
- Energy Assistance: $50.7 million
- Households Served: 80,161 (estimate)

45 CFR 96.83(c)(2)(i)  
45 CFR 96.83(c)(3)

Approximately 6,433 more households will receive Energy Assistance during FFY 2015 than those served during FFY 2014.

45 CFR 96.83(c)(2)(ii)  
45 CFR 96.83(c)(4)

The aggregate amount of benefits our service population received during FFY 2015 is approximately $3.9 million more than benefits received during FFY 2014.

Support Documentation for Standard Waiver

45 CFR 96.83(e)(1)

The State of Washington does meet the criteria set forth in 45 CFR 96.83(c)(2)(i) and (c)(2)(ii).

45 CFR 96.83(e)(1)(i)

*In reference to 96.83(c)(2)(i) and 96.83(c)(3), Number of Households Served*  
Commerce meets the criteria for 96.83(c)(2)(i) and does not require a good cause waiver.

*In reference to 96.83(c)(2)(ii) and 96.83(c)(4), Aggregate Benefit Amounts*

Commerce meets the criteria for 96.83(c)(2)(ii) and does not require a good cause waiver.

Commerce has measurable and quantified data that support our weatherization network’s ability to provide cost-effective weatherization services that reduce the energy burden of our most vulnerable households.

45 CFR 96.83(e)(1)(ii)

Income levels and eligibility criteria for LIHEAP heating and crisis assistance applications have not changed from FFY 2014 to FFY 2015. Applicants must be at or below 125 percent of the federal poverty level. LIHEAP benefits range from a $25 minimum to a $1,000 maximum.
**45 CFR 96.83(e)(1)(iii)**

FFY 2014 and FFY 2015 have identical opening and closing dates for LIHEAP heating and crisis assistance applications (October 1st thru June 30th).

Outreach efforts for heating and crisis assistance are also identical for the 2014 and 2015 program years; both follow the Washington State Plans as submitted to HHS. Particular emphasis is placed on providing information on all programs funded under the LIHEAP Act to households which contain high home energy burdens; the elderly; individuals with disabilities; families with young children (under six years of age); and persons and families who are subject to communication barriers (non-English speaking persons and persons who do not have easy access to common public news media, such as newspapers, radio, or television). The following outreach activities are conducted to assure eligible households are aware of all LIHEAP assistance available:

- Provide intake service through home visits or by telephone for the physically infirm (i.e. elderly or disabled).
- Place posters/flyers in local and county social service offices, offices of aging, Social Security offices, VA, etc.
- Publish articles in local newspapers or broadcast media announcements.
- Include inserts in energy vendor billings to inform individuals of the availability of all types of LIHEAP assistance.
- Mailings to past recipients of LIHEAP.
- Inform low-income applicants of the availability of all types of LIHEAP assistance at application intake for other low-income programs.
- Execute interagency agreements with other low-income program offices to perform outreach to target groups.

**45 CFR 96.83(e)(1)(iv)**

There are no other actions that led or will lead to a reduction in the number of applications for LIHEAP heating and crisis assistance in FFY 2015 compared to FFY 2014.

**Weatherization Measures, Cost Effectiveness, and Program Benefits**

**45 CFR 96.83(c)(2)(iii)**

**45 CFR 96.83(c)(5)**

**Home Energy Audit**

To be considered a complete weatherized unit, all homes must 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 nationally-recognized Building Performance Institute (BPI). After July 1, 2015 a BPI-certified Home Energy Professional Quality Control Inspector (QCI) must inspect and sign off on all completed weatherization projects. Training and testing is currently being conducted at the Building Performance Center to meet this requirement.
Commerce’s “house-as-a-system” approach to comprehensive home energy audits consists of the following elements per home (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 (i.e. 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 energy conservation 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 based on Commerce procedures governing Health and Safety, Air Sealing, Pressure Diagnostics, and Repairs as well as information collected using either a computerized energy audit (TREAT) or a DOE-approved Priority List of Weatherization Measures. Local agencies are required to review a weatherization-specific scope of work with all clients receiving weatherization services.

**TREAT Computerized Energy Audit**

The Targeted Retrofit Energy Analysis Tool (TREAT) is the Washington State Weatherization Program energy audit tool approved and authorized by the U. S. Department of Energy for single-family houses, mobile homes and multifamily buildings. TREAT energy audits are required for analysis of any buildings beyond the priority list parameters.

Commerce expects local agencies to calculate and maintain current costs for materials, labor, and fuels to be used in the TREAT auditing process. Costs are verified during monitoring reviews. Local agencies are responsible for ensuring that all staff performing computerized energy audits acquire and maintain proficiency using TREAT. Commerce provides introductory and advanced TREAT training through the Building Performance Center, Washington’s training and technical assistance provider.

**Priority List of Weatherization Measures**

Commerce created 20 Priority Lists of Weatherization Measures using the TREAT computerized energy audit on both multi-family and single-family buildings. The appropriate list to apply to each project is determined by a variety of building characteristics and configurations, fuel types, and two climactic regions of the state. The Priority Lists reflect those measures for which an
average savings-to-investment ratio (SIR) of greater than 1.0 was established. The recently DOE approval of 20 Priority Lists of Weatherization Measures will be implemented July 1, 2015 for use on site built dwellings (single family and small multi-family (four units or less)), mobile home dwellings, and multi-family dwellings (electrically heated, five units or more, and three stories or less in height). Major Measures will be installed in order as shown on the approved priority list. A notable change is the transfer of our General Heat Waste Reduction List to the Priority Lists and these measures are now prioritized by SIR.

Measures not included in the Priority Lists must be justified by using TREAT, the DOE-approved energy audit tool. TREAT energy audits must result in at least an SIR of 1.0 or greater, or through special authorization by Commerce. The most cost-effective measures as determined by TREAT or the Priority Lists will ordinarily be installed, subject to funding availability. Any deviation from this measure selection process must have written justification documented in the client file.

Cost Effectiveness

Washington State University Energy Program (WSU) completed an evaluation of Washington State Low-Income Weatherization Program for July 2009 through June 2010 (FY2010). Key findings from the FY2010 evaluation include:

- The average household saved $189 per year in energy costs.
- Other utility, household, and societal benefits were $196 per year per household.
- The average direct unit cost was $4,000 and total program unit cost was $6,070 (this includes all costs).
- The program benefit-cost ratio was estimated to be 1.5.

As seen in Table E.1., from the “Washington State Low-Income Weatherization Program Evaluation Report for FY2010,” the benefit-cost ratio for the Weatherization Program is 1.5 for the mid-range scenario. Program benefits are 50 percent greater than costs. The benefit-cost ratio ranges from 0.9 to 2.1 for the different scenarios. This suggests that Total Program Benefits exceed Total Program Costs.

<table>
<thead>
<tr>
<th></th>
<th>Mid</th>
<th>Low</th>
<th>High</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emissions Benefit</td>
<td>$380</td>
<td>$330</td>
<td>$0</td>
</tr>
<tr>
<td>Economic Benefit</td>
<td>$1,310</td>
<td>$690</td>
<td>$1,970</td>
</tr>
<tr>
<td>Utility Benefit</td>
<td>$340</td>
<td>$80</td>
<td>$680</td>
</tr>
<tr>
<td>Participant Benefit</td>
<td>$2,270</td>
<td>$930</td>
<td>$4,660</td>
</tr>
<tr>
<td>Total Non-Energy</td>
<td>$4,300</td>
<td>$2,030</td>
<td>$7,310</td>
</tr>
<tr>
<td>Energy Benefit</td>
<td>$4,840</td>
<td>$3,620</td>
<td>$5,230</td>
</tr>
<tr>
<td><strong>Total Benefit</strong></td>
<td>$9,140</td>
<td>$5,640</td>
<td>$12,540</td>
</tr>
<tr>
<td><strong>Total Cost</strong></td>
<td>$6,070</td>
<td>$6,070</td>
<td>$6,070</td>
</tr>
<tr>
<td><strong>Benefit-Cost Ratio</strong></td>
<td>1.5</td>
<td>0.9</td>
<td>2.1</td>
</tr>
</tbody>
</table>
Since 2010, the Department of Commerce collects local agency weatherization project data in an online data system. Weatherization agencies use the Weatherization Information Data System (WIDS) to report detailed information about all single and multi-family projects weatherized statewide. WIDS also includes an inspection module that is used to improve the efficiency and effectiveness of Commerce monitoring and inspection activities. These efforts contribute to maintaining and improving program performance and cost-effectiveness.

**Program Benefits**

Washington’s Weatherization Program installed weatherization measures in 3,377 units between July 1, 2013 and June 30, 2014. These installed measures produced energy savings of 35,059 Millions of British Thermal Units (MBTUs) and are estimated to save households $638,253 per year in energy costs ($189 per unit per WSU FY2010 evaluation). These energy savings will accrue each year during the lifetimes of the energy measures, as much as 30 years for insulation measures.

The Weatherization Program provides “non-energy” benefits as well; these benefits accrue to utilities and ratepayers (mostly due to reductions in delinquent bills), participants (improved comfort, health, property value, etc.), and society (benefits to the economy and emissions reductions). Non-energy benefits are estimated to be $196 per year per household from the WSU FY2010 evaluation; a total non-energy savings of $661,892 for FY2014.

**Additional Factors Supporting the Waiver Request**

The goal of the State’s request is to reduce the long term energy and heating bills of low-income families. LIHEAP heating, cooling, and crisis assistance are important and necessary, but the long-term benefits of LIHEAP weatherization assistance reduces the number of delinquent utility payments and the need for energy assistance applications, resulting in fewer service shut-offs and freeing up household income for other needs.

Weatherization measures, including energy-related health and safety measures and repairs, weatherization-related repairs, and the installation of low-cost/no-cost materials, as well as the delivery of consumer conservation education, are preventative and long-term in nature. Weatherization measures reduce energy burden through energy retrofits, eliminate structural hazards (thereby protecting building occupants), and preserve the efficacy of weatherization materials. Installation of low-cost/no-cost materials (for example, compact fluorescent light bulbs, low-flow showerheads, and faucet aerators) and delivery of consumer conservation education provide opportunities for weatherization recipients to take a direct role in learning and implementing energy-efficiency measures and long-term behavior change.

**Washington State Electricity and Natural Gas Prices**

According to the Department of Commerce’s Energy Office, and as illustrated in the graph below, the residential natural gas price decreased modestly in 2014 through early 2015 due to a mild Northwest winter and continued growth in U.S. natural gas production. Natural gas inventory levels eventually recovered following the cold (eastern US) winter of 2013-14, and spot and wholesale market gas prices subsequently declined. The Washington Utilities and Transportation Commission (UTC) approved rate increases for the state’s four natural gas
utilities. Residential customers at the four gas utilities will experience the following rate increases of: 2.2% for Puget Sound Energy customers; 1.1% for Avista; 5.53% for Cascade Natural Gas; and 6% for NW Natural Gas customers. Parts of the increases are to make up for higher market natural gas prices in early 2014, and to pay for various pipeline replacements and equipment upgrades.

Residential electric rates increased by a modest 0.5 percent in 2014, held down by mild weather, ample hydropower and the low electric sector natural gas prices. During the winter/spring of 2014 public utilities, primarily served by the Bonneville Power Administration (BPA), implemented rate increases in response to higher wholesale power prices from the Federal agency. For the 2014 through 2015 time period the BPA established a rate increase of 9% for power and 11% for transmission services. For 2016 through 2017 the BPA is proposing a 6.7% rate increase for power and a 5.6% rate increase for transmission services. The independent utilities Puget Sound Energy (PSE) and Avista have enacted rate increases of 6 and 2 percent respectively for 2014. For 2015 PSE is decreasing its electric rates by 0.7% and Avista has requested approval of a 7.9% increase from the UTC. Seattle City Light received City Council approval for a rate increase of 4.2%, while Tacoma Power is requesting a 3% increase from the Tacoma City Council.

Weatherization Fund Source Reductions

The following graph shows funding trends from 2012 to 2015 for the Washington Low-Income Weatherization Program. In comparison to 2014, 2015 allocations decreased by 1.5% for LIHEAP Weatherization and increased 9.1% for Department of Energy Weatherization.
Assistance Program (DOE WAP). Washington State Matchmakers funding, while expected to be approved by WA State Legislature for 2015-2017, is undetermined at time of this application.

Given the decrease in LIHEAP Weatherization funding and slight increases in DOE WAP funding, and the unknown amount in Matchmakers funding, the transfer of additional HHS funds to LIHEAP Weatherization is crucial.

<table>
<thead>
<tr>
<th>Fund Source</th>
<th>2014 Award</th>
<th>2015 (Expected) Award</th>
<th>% Increase 2014-2015</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIHEAP</td>
<td>$9,534,354</td>
<td>$9,387,305</td>
<td>1.5%</td>
</tr>
<tr>
<td>DOE</td>
<td>$3,561,399</td>
<td>$3,885,453</td>
<td>9.1%</td>
</tr>
</tbody>
</table>

MATCHMAKER

2011-2013 total regular award: $16,000,000
2013-2015 total regular award = $10,000,000
2015-2017 total regular award= Not passed by WA State Legislature at this time

% decrease from 2013 to 2014 = 38%

Public Review and Comment

45 CFR 96.83(c)(6)

A public hearing will be held in Olympia on Tuesday, May 26, 2015. A news release announcing the waiver application and public hearing was sent electronically to the Commerce stakeholder list serve. Legal Notices will be published at least 10 calendar days in advance of the public hearing in three Washington newspapers: Yakima Herald, The Seattle Times and The Spokesman Review. An announcement concerning the public hearing and the LIHEAP Waiver was placed on the Commerce website. A copy of the waiver and news release were sent to weatherization coordinators, energy assistance coordinators, utility companies, and other interested parties in Washington.

At minimum, Commerce will allow 10 calendar days for public inspection and comment. Commerce will include copies of the comments with the waiver application.

Waiver Request

The State of Washington Department of Commerce requests approval of this Standard Waiver request from the United States Department of Health and Human Services to allow an additional 10 percent to exceed the 15 percent maximum transfer allowable for weatherization as the criteria in 45 CFR 96.83(d) have been met. Approval of the Waiver will allow Washington State to allocate 25 percent of its LIHEAP funds for weatherizing the homes of its most vulnerable households.
Exhibit A

Sample Priority List (1 of 20 DOE approved Priority Lists)

This Priority List is for an electrically heated, 1-story, site-built home in Washington State climate zone 1.

<table>
<thead>
<tr>
<th>Priority List</th>
<th>SIR</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Z1E1</strong></td>
<td></td>
</tr>
<tr>
<td>Install Low-flow Showerhead</td>
<td>8.24</td>
</tr>
<tr>
<td>Attic: Add R-38 (R-0 -&gt; R-38)</td>
<td>8.22</td>
</tr>
<tr>
<td>Attic: Add R-49 (R-0 -&gt; R-49)</td>
<td>7.91</td>
</tr>
<tr>
<td>Install Low-flow Faucet Aerator</td>
<td>4.55</td>
</tr>
<tr>
<td>Attic: Add R-19 (R-0-&gt;R-19)</td>
<td>3.60</td>
</tr>
<tr>
<td>Wall: No insulation - fill w/R-13</td>
<td>3.19</td>
</tr>
<tr>
<td>Attic: Add R-30 (R-8 -&gt; R-38)</td>
<td>1.92</td>
</tr>
<tr>
<td>Hot/Cold Water Pipe Insulation (R-0-&gt;R-3)</td>
<td>1.72</td>
</tr>
<tr>
<td>Water Heater Insulation Wrap (R-0-&gt;R-24)</td>
<td>1.63</td>
</tr>
<tr>
<td>Floor: Add R-30 (R-0 -&gt; R-30)</td>
<td>1.50</td>
</tr>
<tr>
<td>Attic: Add R-38 (R-11 -&gt; R-49)</td>
<td>1.39</td>
</tr>
<tr>
<td>Install CFL Bulbs</td>
<td>1.31</td>
</tr>
<tr>
<td>Air Sealing</td>
<td>1.27</td>
</tr>
<tr>
<td>Wall: 40% gaps and voids- fill w/R-13</td>
<td>1.12</td>
</tr>
<tr>
<td>Attic: Add R-19 (R-19 -&gt; R-38)</td>
<td>1.08</td>
</tr>
<tr>
<td>Duct Sealing</td>
<td>1.02</td>
</tr>
</tbody>
</table>