

ON THE BRINK: 2010

THE HOME ENERGY AFFORDABILITY GAP APRIL 2011

Finding #1

	Home Energy Affordability Gap	Gross LIHEAP Allocation	
2002 (base year)	\$18,193,257,723	\$1,669,935,373	Existing sources of energy assistance do not adequately address the energy affordability gap in the United States. Actual low-income energy bills exceeded affordable energy bills in the United States by \$29,857 million at 2009/2010 winter heating fuel prices. In contrast, the total United States received a gross allotment of federal energy assistance funds of \$4,427.2 million for Fiscal Year 2010.
2010 (current year)	\$29,856,944,854	\$4,427,166,528	
Change	\$11,663,687,131	\$2,757,231,155	

Finding #2

Home Energy Affordability Gap: 2002 (base year)	\$18,193,257,723	The Home Energy Affordability Gap Index for the total United States was 164.1 for 2010. This Index indicates that the Home Energy Affordability Gap has increased 64.1% between 2002 and the current year.
Home Energy Affordability Gap: 2010 (current year)	\$29,856,944,854	
Home Energy Affordability Gap Index (2002 = 100)	164.1	

Definitions and Explanations

Each state (along with the District of Columbia) has a Home Energy Affordability Gap calculated on a county-by-county basis. Once total energy bills are estimated for each county, each county bill is weighted by the percentage of persons below 185% of the Federal Poverty Level in each county to the total statewide population below 185% of the Federal Poverty Level to derive a statewide result. State data are then aggregated into Census Division totals as follows:

East North Central	Illinois, Indiana, Michigan, Ohio, Wisconsin
East South Central	Alabama, Kentucky, Mississippi, Tennessee
Mid-Atlantic	New Jersey, New York, Pennsylvania
Mountain	Arizona, Colorado, Idaho, Montana, Nevada, New Mexico, Utah, Wyoming
New England	Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont
Pacific	Alaska, California, Hawaii, Oregon, Washington
South Atlantic	Delaware, District of Columbia, Florida, Georgia, Maryland, North Carolina, South Carolina, Virginia, West Virginia
West North Central	Iowa, Kansas, Minnesota, Missouri, Nebraska, North Dakota, South Dakota
West South Central	Arkansas, Louisiana, Oklahoma, Texas

LIHEAP comparisons use gross allotments from the baseline LIHEAP appropriation; they do not reflect supplemental appropriations or the release of other emergency funds. For example, the 2006 Home Energy Affordability Gap analysis (issued in April 2007) does not reflect the supplemental appropriation bill enacted in March 2006.

Energy bills are a function of the following primary factors:

- Tenure of household (owner/renter)
- Housing unit size (by tenure)
- Heating Degree Days (HDDs) and Cooling Degree Days (CDDs) (by county)
- Household size (by tenure)
- Heating fuel mix (by tenure)
- Energy use intensities (by fuel and end use)

Bills are estimated using the U.S. Department of Energy's "energy intensities" published in the most recent DOE Residential Energy Consumption Survey (RECS). The energy intensities used for each state are those published for the Census Division in which the state is located. State-specific demographic data is obtained from the most recent Decennial Census of the U.S. Census Bureau. Heating Degree-Days (HDDs) and Cooling Degree-Days (CDDs) are obtained from the National Weather Service's Climate Prediction Center on a county-by-county basis for the entire country. State price data for each end-use is obtained from the Energy Information Administration's (EIA) fuel-specific price reports (e.g., Natural Gas Monthly, Electric Power Monthly).

The Home Energy Affordability Gap is a function of many variables. Increases in income, for example, result in decreases in the Gap while increases in energy prices result in an increase in the Gap. The Home Energy Affordability Gap Index allows the reader to determine the cumulative impact of these variables. Since the Gap is calculated assuming normal Heating Degree Days (HDDs) and Cooling Degree Days (CDDs), temperatures do not have an impact on the Affordability Gap or the Affordability Gap Index.

Price data for the various fuels underlying the calculation of the 2010 Home Energy Affordability Gap was used from the following time periods:

<i>Heating prices</i>	
Natural gas	February 2010
Fuel oil	February 2010
Liquefied petroleum gas (LPG)	February 2010
Electricity	February 2010
<i>Cooling prices</i>	
August 2010	
<i>Non-heating prices</i>	
Natural gas	May 2010
Fuel oil	May 2010
Liquefied petroleum gas (LPG)	May 2010
Electricity	May 2010

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	Home Energy Affordability Gap	Gross LIHEAP Allocation	Existing sources of energy assistance do not adequately address the energy affordability gap in the West North Central census division. Actual low-income energy bills exceeded affordable energy bills in the West North Central division by \$1,763 million at 2009/2010 winter heating fuel prices. In contrast, the West North Central division received a gross allotment of federal energy assistance funds of \$439.0 million for Fiscal Year 2010.
2002 (base year)	\$875,313,956	\$190,103,906	
2010 (current year)	\$1,763,414,592	\$439,017,910	
Change	\$888,100,636	\$248,914,004	
			The LIHEAP allocation for the West North Central census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2010, the total Home Energy Affordability Gap increased by \$888.1 million. In comparison, the LIHEAP allocation for the West North Central division increased \$248.9 million.

Finding #2

		The Home Energy Affordability Gap Index for the West North Central census division was 201.5 for 2010. This Index indicates that the Home Energy Affordability Gap has increased 101.5% between 2002 and the current year.
Home Energy Affordability Gap: 2002 (base year)	\$875,313,956	
Home Energy Affordability Gap: 2010 (current year)	\$1,763,414,592	
Home Energy Affordability Gap Index (2002 = 100)	201.5	The Home Energy Affordability Gap Index uses the year 2002 as its base year. In that year, the Index was set equal to 100. A current year Index of more than 100 thus indicates that the Home Energy Affordability Gap for the West North Central division has increased since 2002. A current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.

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	Home Energy Affordability Gap	Gross LIHEAP Allocation	
2002 (base year)	\$2,104,790,609	\$378,548,214	Existing sources of energy assistance do not adequately address the energy affordability gap in the East North Central census division. Actual low-income energy bills exceeded affordable energy bills in the East North Central division by \$3,615 million at 2009/2010 winter heating fuel prices. In contrast, the East North Central division received a gross allotment of federal energy assistance funds of \$922.5 million for Fiscal Year 2010.
2010 (current year)	\$3,614,657,691	\$922,536,164	The LIHEAP allocation for the East North Central census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2010, the total Home Energy Affordability Gap increased by \$1,509.9 million. In comparison, the LIHEAP allocation for the East North Central division increased \$544.0 million.
Change	\$1,509,867,082	\$543,987,950	

Finding #2

Home Energy Affordability Gap: 2002 (base year)	\$2,104,790,609	The Home Energy Affordability Gap Index for the East North Central census division was 171.7 for 2010. This Index indicates that the Home Energy Affordability Gap has increased 71.7% between 2002 and the current year.
Home Energy Affordability Gap: 2010 (current year)	\$3,614,657,691	The Home Energy Affordability Gap Index uses the year 2002 as its base year. In that year, the Index was set equal to 100. A current year Index of more than 100 thus indicates that the Home Energy Affordability Gap for the East North Central division has increased since 2002. A current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.
Home Energy Affordability Gap Index (2002 = 100)	171.7	

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	Home Energy Affordability Gap	Gross LIHEAP Allocation	
2002 (base year)	\$1,008,687,819	\$162,607,251	Existing sources of energy assistance do not adequately address the energy affordability gap in the New England census division. Actual low-income energy bills exceeded affordable energy bills in the New England division by \$1,943 million at 2009/2010 winter heating fuel prices. In contrast, the New England division received a gross allotment of federal energy assistance funds of \$414.0 million for Fiscal Year 2010.
2010 (current year)	\$1,943,179,016	\$413,982,432	The LIHEAP allocation for the New England census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2010, the total Home Energy Affordability Gap increased by \$934.5 million. In comparison, the LIHEAP allocation for the New England division increased \$251.4 million.
Change	\$934,491,197	\$251,375,181	

Finding #2

Home Energy Affordability Gap: 2002 (base year)	\$1,008,687,819	The Home Energy Affordability Gap Index for the New England census division was 192.6 for 2010. This Index indicates that the Home Energy Affordability Gap has increased 92.6% between 2002 and the current year.
Home Energy Affordability Gap: 2010 (current year)	\$1,943,179,016	The Home Energy Affordability Gap Index uses the year 2002 as its base year. In that year, the Index was set equal to 100. A current year Index of more than 100 thus indicates that the Home Energy Affordability Gap for the New England division has increased since 2002. A current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.
Home Energy Affordability Gap Index (2002 = 100)	192.6	

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Finding #1

	Home Energy Affordability Gap	Gross LIHEAP Allocation	
2002 (base year)	\$2,402,712,484	\$143,095,341	Existing sources of energy assistance do not adequately address the energy affordability gap in the Pacific census division. Actual low-income energy bills exceeded affordable energy bills in the Pacific division by \$2,795 million at 2009/2010 winter heating fuel prices. In contrast, the Pacific division received a gross allotment of federal energy assistance funds of \$339.5 million for Fiscal Year 2010.
2010 (current year)	\$2,795,494,215	\$339,470,015	
Change	\$392,781,731	\$196,374,674	

Finding #2

Home Energy Affordability Gap: 2002 (base year)	\$2,402,712,484	The Home Energy Affordability Gap Index for the Pacific census division was 116.3 for 2010. This Index indicates that the Home Energy Affordability Gap has increased 16.3% between 2002 and the current year.
Home Energy Affordability Gap: 2010 (current year)	\$2,795,494,215	
Home Energy Affordability Gap Index (2002 = 100)	116.3	The Home Energy Affordability Gap Index uses the year 2002 as its base year. In that year, the Index was set equal to 100. A current year Index of more than 100 thus indicates that the Home Energy Affordability Gap for the Pacific division has increased since 2002. A current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.

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	Home Energy Affordability Gap	Gross LIHEAP Allocation	
2002 (base year)	\$3,388,498,837	\$391,717,292	Existing sources of energy assistance do not adequately address the energy affordability gap in the Mid-Atlantic census division. Actual low-income energy bills exceeded affordable energy bills in the Mid-Atlantic division by \$3,829 million at 2009/2010 winter heating fuel prices. In contrast, the Mid-Atlantic division received a gross allotment of federal energy assistance funds of \$938.7 million for Fiscal Year 2010.
2010 (current year)	\$3,829,371,925	\$938,745,351	The LIHEAP allocation for the Mid-Atlantic census division has gained ground relative to its Home Energy Affordability Gap. From 2002 to 2010, the total Home Energy Affordability Gap increased by \$440.9 million. In comparison, the LIHEAP allocation for the Mid-Atlantic division increased \$547.0 million.
Change	\$440,873,088	\$547,028,059	

Finding #2

Home Energy Affordability Gap: 2002 (base year)	\$3,388,498,837	The Home Energy Affordability Gap Index for the Mid-Atlantic census division was 113.0 for 2010. This Index indicates that the Home Energy Affordability Gap has increased 13.0% between 2002 and the current year.
Home Energy Affordability Gap: 2010 (current year)	\$3,829,371,925	The Home Energy Affordability Gap Index uses the year 2002 as its base year. In that year, the Index was set equal to 100. A current year Index of more than 100 thus indicates that the Home Energy Affordability Gap for the Mid-Atlantic division has increased since 2002. A current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.
Home Energy Affordability Gap Index (2002 = 100)	113.0	

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	Home Energy Affordability Gap	Gross LIHEAP Allocation	
2002 (base year)	\$926,284,598	\$86,020,612	Existing sources of energy assistance do not adequately address the energy affordability gap in the Mountain census division. Actual low-income energy bills exceeded affordable energy bills in the Mountain division by \$1,320 million at 2009/2010 winter heating fuel prices. In contrast, the Mountain division received a gross allotment of federal energy assistance funds of \$227.7 million for Fiscal Year 2010.
2010 (current year)	\$1,319,922,285	\$227,673,362	
Change	\$393,637,687	\$141,652,750	The LIHEAP allocation for the Mountain census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2010, the total Home Energy Affordability Gap increased by \$393.6 million. In comparison, the LIHEAP allocation for the Mountain division increased \$141.7 million.

Finding #2

		The Home Energy Affordability Gap Index for the Mountain census division was 142.5 for 2010. This Index indicates that the Home Energy Affordability Gap has increased 42.5% between 2002 and the current year.
Home Energy Affordability Gap: 2002 (base year)	\$926,284,598	
Home Energy Affordability Gap: 2010 (current year)	\$1,319,922,285	
Home Energy Affordability Gap Index (2002 = 100)	142.5	The Home Energy Affordability Gap Index uses the year 2002 as its base year. In that year, the Index was set equal to 100. A current year Index of more than 100 thus indicates that the Home Energy Affordability Gap for the Mountain division has increased since 2002. A current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.

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	Home Energy Affordability Gap	Gross LIHEAP Allocation	
2002 (base year)	\$1,341,042,818	\$72,682,985	Existing sources of energy assistance do not adequately address the energy affordability gap in the East South Central census division. Actual low-income energy bills exceeded affordable energy bills in the East South Central division by \$2,680 million at 2009/2010 winter heating fuel prices. In contrast, the East South Central division received a gross allotment of federal energy assistance funds of \$227.8 million for Fiscal Year 2010.
2010 (current year)	\$2,680,119,085	\$227,814,217	
Change	\$1,339,076,267	\$155,131,232	The LIHEAP allocation for the East South Central census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2010, the total Home Energy Affordability Gap increased by \$1,339.1 million. In comparison, the LIHEAP allocation for the East South Central division increased \$155.1 million.

Finding #2

Home Energy Affordability Gap: 2002 (base year)	\$1,341,042,818	The Home Energy Affordability Gap Index for the East South Central census division was 199.9 for 2010. This Index indicates that the Home Energy Affordability Gap has increased 99.9% between 2002 and the current year.
Home Energy Affordability Gap: 2010 (current year)	\$2,680,119,085	
Home Energy Affordability Gap Index (2002 = 100)	199.9	The Home Energy Affordability Gap Index uses the year 2002 as its base year. In that year, the Index was set equal to 100. A current year Index of more than 100 thus indicates that the Home Energy Affordability Gap for the East South Central division has increased since 2002. A current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.

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	Home Energy Affordability Gap	Gross LIHEAP Allocation	
2002 (base year)	\$3,240,292,399	\$168,508,502	Existing sources of energy assistance do not adequately address the energy affordability gap in the South Atlantic census division. Actual low-income energy bills exceeded affordable energy bills in the South Atlantic division by \$6,598 million at 2009/2010 winter heating fuel prices. In contrast, the South Atlantic division received a gross allotment of federal energy assistance funds of \$603.2 million for Fiscal Year 2010.
2010 (current year)	\$6,598,103,527	\$603,207,385	The LIHEAP allocation for the South Atlantic census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2010, the total Home Energy Affordability Gap increased by \$3,357.8 million. In comparison, the LIHEAP allocation for the South Atlantic division increased \$434.7 million.
Change	\$3,357,811,128	\$434,698,883	

Finding #2

Home Energy Affordability Gap: 2002 (base year)	\$3,240,292,399	The Home Energy Affordability Gap Index for the South Atlantic census division was 203.6 for 2010. This Index indicates that the Home Energy Affordability Gap has increased 103.6% between 2002 and the current year.
Home Energy Affordability Gap: 2010 (current year)	\$6,598,103,527	The Home Energy Affordability Gap Index uses the year 2002 as its base year. In that year, the Index was set equal to 100. A current year Index of more than 100 thus indicates that the Home Energy Affordability Gap for the South Atlantic division has increased since 2002. A current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.
Home Energy Affordability Gap Index (2002 = 100)	203.6	

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	Home Energy Affordability Gap	Gross LIHEAP Allocation	
2002 (base year)	\$2,905,634,202	\$76,651,270	Existing sources of energy assistance do not adequately address the energy affordability gap in the West South Central census division. Actual low-income energy bills exceeded affordable energy bills in the West South Central division by \$5,313 million at 2009/2010 winter heating fuel prices. In contrast, the West South Central division received a gross allotment of federal energy assistance funds of \$314.7 million for Fiscal Year 2010.
2010 (current year)	\$5,312,682,518	\$314,719,692	
Change	\$2,407,048,316	\$238,068,422	
			The LIHEAP allocation for the West South Central census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2010, the total Home Energy Affordability Gap increased by \$2,407.0 million. In comparison, the LIHEAP allocation for the West South Central division increased \$238.1 million.

Finding #2

Home Energy Affordability Gap: 2002 (base year)	\$2,905,634,202	The Home Energy Affordability Gap Index for the West South Central census division was 182.8 for 2010. This Index indicates that the Home Energy Affordability Gap has increased 82.8% between 2002 and the current year.
Home Energy Affordability Gap: 2010 (current year)	\$5,312,682,518	
Home Energy Affordability Gap Index (2002 = 100)	182.8	
		The Home Energy Affordability Gap Index uses the year 2002 as its base year. In that year, the Index was set equal to 100. A current year Index of more than 100 thus indicates that the Home Energy Affordability Gap for the West South Central division has increased since 2002. A current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.