## THE HOME ENERGY AFFORDABILITY GAP APRIL 2009

#### Finding #1

	Home Energy Affordability Gap	Gross LIHEAP Allocation	Existing sources of energy assistance do not adequately address the energy affordability gap in the United States.
2002 (base year)	\$18,193,257,723	\$1,669,935,373	Actual low-income energy bills exceeded affordal energy bills in the United States by \$34,196 million 2007/2008 winter heating fuel prices. In contrast, the to United States received a gross allotment of federal ener assistance funds of \$1,929.2 million for Fiscal Year 2008
2008 (current year)	\$34,195,515,135	\$1,929,206,964	The LIHEAP allocation for the total United States has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2008, the total Home Energy Affordability Gap increased by \$16,002.3 million. In comparison, the
Change	\$16,002,257,412	\$259,271,591	LIHEAP allocation for the total United States increased \$259.3 million.

Home Energy Affordability Gap: 2002 (base year)	\$18,193,257,723	The Home Energy Affordability Gap Index for the total United States was 188.0 for 2008. This Index indicates that the Home Energy Affordability Gap has increased 88.0% between 2002 and the current year.
Home Energy Affordability Gap: 2008 (current year)	\$34,195,515,135	The Home Energy Affordability Gap Index uses the year 2002 as its base year. In that year, the Index was set equa to 100. A current year Index of more than 100 thus indicates that the Home Energy Affordability Gap for the
Home Energy Affordability Gap Index (2002 = 100)	188.0	Total US division has increased since 2002. A current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.

#### **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 2008 Home Energy Affordability Gap was used from the following time periods:

Heating prices	
Natural gas	February 2008
Fuel oil	February 2008
Liquefied petroleum gas (LPG)	February 2008
Electricity	February 2008
Cooling prices	August 2008
Non-heating prices	
Natural gas	May 2008
Fuel oil	May 2008
Liquefied petroleum gas (LPG)	May 2008
Electricity	May 2008

WEST NORTH

### ON THE BRINK: 2008

# THE HOME ENERGY AFFORDABILITY GAP APRIL 2009

#### Finding #1

	Home Energy Affordability Gap	Gross LIHEAP Allocation	Existing sources of energy assistance do not adequately address the energy affordability gap in the West North
2002 (base year)	\$875,313,956	\$190,103,906	Central census division. Actual low-income energy bit exceeded affordable energy bills in the West Nor Central division by \$1,757 million at 2007/2008 with heating fuel prices. In contrast, the West North Central division received a gross allotment of federal ener assistance funds of \$216.9 million for Fiscal Year 2008.
2008 (current year)	\$1,756,806,853	\$216,875,729	The LIHEAP allocation for the West North Central census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2008, the total
Change	\$881,492,897	\$26,771,823	Home Energy Affordability Gap increased by \$881.5 million. In comparison, the LIHEAP allocation for the West North Central division increased \$26.8 million.

Home Energy Affordability Gap: 2002 (base year)	\$875,313,956	North Central census division was 200.7 for 2008. This Index indicates that the Home Energy Affordability Gap has increased 100.7% between 2002 and the current year.
Home Energy Affordability Gap: 2008 (current year)	\$1,756,806,853	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
Home Energy Affordability Gap Index (2002 = 100)	200.7	current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.

EAST NORTH

## ON THE BRINK: 2008

## THE HOME ENERGY AFFORDABILITY GAP APRIL 2009

#### Finding #1

	Home Energy Affordability Gap	Gross LIHEAP Allocation	Existing sources of energy assistance do not adequately address the energy affordability gap in the East North
2002 (base year)	\$2,104,790,609	\$378,548,214	Central census division. Actual low-income energy bill exceeded affordable energy bills in the East Nort Central division by \$4,361 million at 2007/2008 winter heating fuel prices. In contrast, the East North Central division received a gross allotment of federal energy assistance funds of \$441.3 million for Fiscal Year 2008.
2008 (current year)	\$4,361,284,176	\$441,275,921	The LIHEAP allocation for the East North Central census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2008, the total
Change	\$2,256,493,567	\$62,727,707	Home Energy Affordability Gap increased by \$2,256.5 million. In comparison, the LIHEAP allocation for the East North Central division increased \$62.7 million.

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 207.2 for 2008. This Index indicates that the Home Energy Affordability Gap has increased 107.2% between 2002 and the current year.
Home Energy Affordability Gap: 2008 (current year)	\$4,361,284,176	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
Home Energy Affordability Gap Index (2002 = 100)	207.2	current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.

## THE HOME ENERGY AFFORDABILITY GAP APRIL 2009

#### Finding #1

	Home Energy Affordability Gap	Gross LIHEAP Allocation	Existing sources of energy assistance do not adequately address the energy affordability gap in the New England census division. Actual low-income energy bills
2002 (base year)	\$1,008,687,819	\$162,607,251	exceeded affordable energy bills in the New Englan division by \$2,560 million at 2007/2008 winter heatin fuel prices. In contrast, the New England divisio received a gross allotment of federal energy assistant funds of \$188.9 million for Fiscal Year 2008.
2008 (current year)	\$2,559,834,285	\$188,868,599	The LIHEAP allocation for the New England census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2008, the total Home
Change	\$1,551,146,466	\$26,261,348	Energy Affordability Gap increased by \$1,551.1 million. In comparison, the LIHEAP allocation for the New England division increased \$26.3 million.

Home Energy Affordability Gap: 2002 (base year)	\$1,008,687,819	The Home Energy Affordability Gap Index for the New England census division was 253.8 for 2008. This Index indicates that the Home Energy Affordability Gap has increased 153.8% between 2002 and the current year.
Home Energy Affordability Gap: 2008 (current year)	\$2,559,834,285	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
Home Energy Affordability Gap Index (2002 = 100)	253.8	year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.

## THE HOME ENERGY AFFORDABILITY GAP APRIL 2009

#### Finding #1

	Home Energy Affordability Gap	Gross LIHEAP Allocation	Existing sources of energy assistance do not adequately address the energy affordability gap in the Pacific census
2002 (base year)	\$2,402,712,484	\$143,095,341	division. Actual low-income energy bills exceede affordable energy bills in the Pacific division by \$2,95 million at 2007/2008 winter heating fuel prices. I contrast, the Pacific division received a gross allotmer of federal energy assistance funds of \$160.9 million for Fiscal Year 2008.
2008 (current year)	\$2,959,110,789	\$160,908,049	The LIHEAP allocation for the Pacific census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2008, the total Home Energy
Change	\$556,398,305	\$17,812,708	Affordability Gap increased by \$556.4 million. In comparison, the LIHEAP allocation for the Pacific division increased \$17.8 million.

Home Energy Affordability Gap: 2002 (base year)	\$2,402,712,484	The Home Energy Affordability Gap Index for the Pacific census division was 123.2 for 2008. This Index indicates that the Home Energy Affordability Gap has increased 23.2% between 2002 and the current year.
Home Energy Affordability Gap: 2008 (current year)	\$2,959,110,789	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
Home Energy Affordability Gap Index (2002 = 100)	123.2	Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.

## THE HOME ENERGY AFFORDABILITY GAP APRIL 2009

#### Finding #1

	Home Energy Affordability Gap	Gross LIHEAP Allocation	Existing sources of energy assistance do not adequately address the energy affordability gap in the Mid-Atlantic census division. Actual low-income energy bills
2002 (base year)	\$3,388,498,837	\$391,717,292	exceeded affordable energy bills in the Mid-Atlantic division by \$6,191 million at 2007/2008 winter heating fuel prices. In contrast, the Mid-Atlantic division received a gross allotment of federal energy assistance funds of \$456.9 million for Fiscal Year 2008.
2008 (current year)	\$6,190,992,471	\$456,891,623	The LIHEAP allocation for the Mid-Atlantic census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2008, the total Home
Change	\$2,802,493,634	\$65,174,331	Energy Affordability Gap increased by \$2,802.5 million. In comparison, the LIHEAP allocation for the Mi Atlantic division increased \$65.2 million.

Home Energy Affordability Gap: 2002 (base year)	\$3,388,498,837	The Home Energy Affordability Gap Index for the Mid-Atlantic census division was 182.7 for 2008. This Index indicates that the Home Energy Affordability Gap has increased 82.7% between 2002 and the current year.
Home Energy Affordability Gap: 2008 (current year)	\$6,190,992,471	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
Home Energy Affordability Gap Index (2002 = 100)	182.7	year Index of less than 100 indicates that the Home Energ Affordability Gap has decreased since 2002.

## THE HOME ENERGY AFFORDABILITY GAP APRIL 2009

#### Finding #1

	Home Energy Affordability Gap	Gross LIHEAP Allocation	Existing sources of energy assistance do not adequately address the energy affordability gap in the Mountain census division. Actual low-income energy bills
2002 (base year)	\$926,284,598	\$86,020,612	exceeded affordable energy bills in the Mountain division by \$1,452 million at 2007/2008 winter heating fuel prices. In contrast, the Mountain division received a gross allotment of federal energy assistance funds of \$95.4 million for Fiscal Year 2008.
2008 (current year)	\$1,452,362,746	\$95,391,440	The LIHEAP allocation for the Mountain census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2008, the total Home
Change	\$526,078,148	\$9,370,828	Energy Affordability Gap increased by \$526.1 million. comparison, the LIHEAP allocation for the Mounta division increased \$9.4 million.

Home Energy Affordability Gap: 2002 (base year)	\$926,284,598	The Home Energy Affordability Gap Index for the Mountain census division was 156.8 for 2008. This Index indicates that the Home Energy Affordability Gap has increased 56.8% between 2002 and the current year.
Home Energy Affordability Gap: 2008 (current year)	\$1,452,362,746	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
Home Energy Affordability Gap Index (2002 = 100)	156.8	year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.

EAST SOUTH CENTRAL

### ON THE BRINK: 2008

## THE HOME ENERGY AFFORDABILITY GAP APRIL 2009

#### Finding #1

	Home Energy Affordability Gap	Gross LIHEAP Allocation	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
2002 (base year)	\$1,341,042,818	\$72,682,985	exceeded affordable energy bills in the East South Central division by \$2,407 million at 2007/2008 winter heating fuel prices. In contrast, the East South Central division received a gross allotment of federal energy assistance funds of \$84.8 million for Fiscal Year 2008.
2008 (current year)	\$2,406,691,712	\$84,753,475	The LIHEAP allocation for the East South Central census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2008, the total
Change	\$1,065,648,894	\$12,070,490	Home Energy Affordability Gap increased by \$1,06 million. In comparison, the LIHEAP allocation for East South Central division increased \$12.1 million.

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 179.5 for 2008. This Index indicates that the Home Energy Affordability Gap has increased 79.5% between 2002 and the current year.
Home Energy Affordability Gap: 2008 (current year)	\$2,406,691,712	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
Home Energy Affordability Gap Index (2002 = 100)	179.5	current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.

SOUTH ATLANTIC

### ON THE BRINK: 2008

## THE HOME ENERGY AFFORDABILITY GAP APRIL 2009

#### Finding #1

	Home Energy Affordability Gap	Gross LIHEAP Allocation	Existing sources of energy assistance do not adequately address the energy affordability gap in the South Atlantic
2002 (base year)	\$3,240,292,399	\$168,508,502	census division. Actual low-income energy bills exceeded affordable energy bills in the South Atlantic division by \$6,137 million at 2007/2008 winter heating fuel prices. In contrast, the South Atlantic division received a gross allotment of federal energy assistance funds of \$196.1 million for Fiscal Year 2008.
2008 (current year)	\$6,136,818,915	\$196,136,192	The LIHEAP allocation for the South Atlantic census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2008, the total Home
Change	\$2,896,526,516	\$27,627,690	Energy Affordability Gap increased by \$2,896.5 million. In comparison, the LIHEAP allocation for the South Atlantic division increased \$27.6 million.

Home Energy Affordability Gap: 2002 (base year)	\$3,240,292,399	The Home Energy Affordability Gap Index for the South Atlantic census division was 189.4 for 2008. This Index indicates that the Home Energy Affordability Gap has increased 89.4% between 2002 and the current year.
Home Energy Affordability Gap: 2008 (current year)	\$6,136,818,915	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
Home Energy Affordability Gap Index (2002 = 100)	189.4	year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.

WEST SOUTH CENTRAL

## ON THE BRINK: 2008

## THE HOME ENERGY AFFORDABILITY GAP APRIL 2009

#### Finding #1

	Home Energy Affordability Gap	Gross LIHEAP Allocation	Existing sources of energy assistance do not adequately address the energy affordability gap in the West South
2002 (base year)	\$2,905,634,202	\$76,651,270	Central census division. Actual low-income energy bills exceeded affordable energy bills in the West South Central division by \$6,372 million at 2007/2008 winter heating fuel prices. In contrast, the West South Central division received a gross allotment of federal energy assistance funds of \$88.1 million for Fiscal Year 2008.
2008 (current year)	\$6,371,613,188	\$88,105,936	The LIHEAP allocation for the West South Central census division has lost ground relative to its Home Energy Affordability Gap. From 2002 to 2008, the total
Change	\$3,465,978,986	\$11,454,666	Home Energy Affordability Gap increased by \$3,466 million. In comparison, the LIHEAP allocation for the West South Central division increased \$11.5 million.

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 219.3 for 2008. This Index indicates that the Home Energy Affordability Gap has increased 119.3% between 2002 and the current year.
Home Energy Affordability Gap: 2008 (current year)	\$6,371,613,188	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
Home Energy Affordability Gap Index (2002 = 100)	219.3	current year Index of less than 100 indicates that the Home Energy Affordability Gap has decreased since 2002.