

THE EFFECTS OF ENERGY COSTS ON THE COMMONWEALTH'S LESS FORTUNATE

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For more than half of each year, Massachusetts' climate is characterized by cool to cold weather. And as temperatures drop, home energy bills become front and center on the minds of the Commonwealth's residents. Regardless of the fuel source used, costs for home heating have steadily increased. While the majority is able to afford these costs, for a part of the state's population – those who live below or near the poverty line – these high energy bills often mean turning the heat down to dangerous levels, and/or foregoing food or medication, all of which can lead to serious health complications.

The Massachusetts Affordable Reliable Electricity Alliance (Mass AREA) has developed the following issue brief to provide an overview of the effects of high energy prices on low-income families in Massachusetts and the need for effective solutions to reduce the hardships they face.

POVERTY IN MASSACHUSETTS

Although Massachusetts is below the national average for individuals, families, and households living in poverty conditions and has one of the highest gross state products, totaling more than \$317 billion each year in goods and services transactions, it is also an expensive state: above average housing, transportation, fuel, and healthcare costs all significantly increase the total cost of living in the Commonwealth.¹

According to the chart on the next page from a June 2007 report by the Commonwealth Corporation, over the 2002-2003 period 6.7 percent of Massachusetts families lived in poverty conditions; 9 percent were near or below the poverty line; and 17 percent were classified as low-income. According to the U.S. Census Bureau, in 2006 the total number of people living below poverty line in Massachusetts rose to 9.9 percent.² Many more Massachusetts residents not captured by these statistics struggle to pay for the basic necessities including food, shelter, and heat.

Poverty thresholds are based on after-tax household income divided by the number of family members. For example, the federal household poverty threshold for a family of four is \$20,000.³ In Massachusetts however, to be eligible for certain financial assistance programs, the annual income for a family of four cannot exceed \$41,300 (2007–2008).⁴

¹ U.S. Census Bureau: <http://factfinder.census.gov>

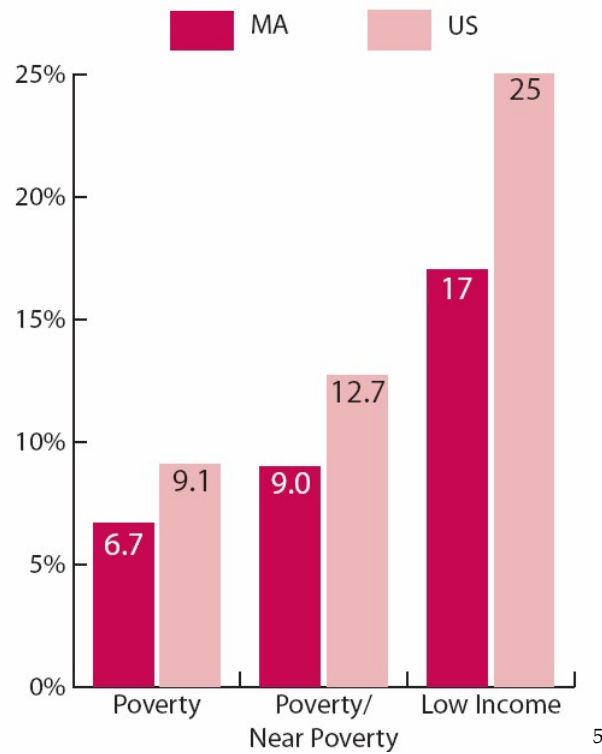
² *Ibid.*

³ U.S. Department of Health and Human Services. <http://aspe.hhs.gov/poverty/06poverty.shtml>

⁴ MassResources.org:

<http://www.massresources.org/pages.cfm?contentID=36&pageID=14&subpages=yes&dynamicID=578>

Chart 1: Comparison of Poverty, Poverty/Near Poverty and Low Income Among Families in Massachusetts and the U.S.



The effects of high costs on low-income families can be devastating, and the cost of energy, whether from electricity, heating oil, natural gas, propane, firewood, etc., can take a significant percentage of an income that is often already stretched to the limits. Indeed, a 2004 analysis by the Consumers Union and the Consumer Federation of America shows that, “low- and middle-income consumers are spending a greater share of their household income on their energy needs than wealthier consumers.” The report went on state that, due to high energy costs and the effects that they have on other consumer spending, “the whole economy is suffering due to higher energy costs, and it’s only going to get worse if we don’t take constructive action to deal with the reality of rising energy prices.”⁶

ENERGY COSTS IN MASSACHUSETTS

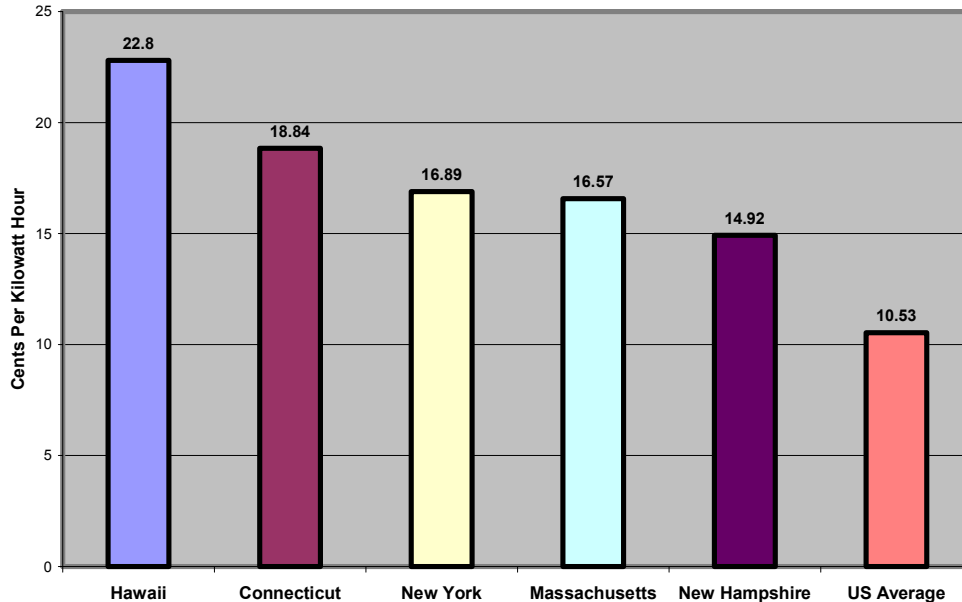
According to a U.S. Energy Information Administration (EIA) report released on October 10, 2007 only three states have experienced higher electricity costs than Massachusetts in 2007.⁷

⁵ Commonwealth Corporation. “Poverty and the Workforce.” Research and Evaluation Brief, June 2007.

⁶ Consumer Union / Consumer Federation of America. Press Release: “CU/CFA Analysis: Low- and Middle-Income Consumers Hit Hardest By Higher Energy Prices.” 29 September, 2004.

⁷ U.S. Energy Information Administration. http://www.eia.doe.gov/cneaf/electricity/epm/table5_6_b.html

The graph below shows the five states with the highest electricity rates in comparison with the U.S. average, measured in cents per kilowatt hour.



Source: U.S. Energy Information Administration

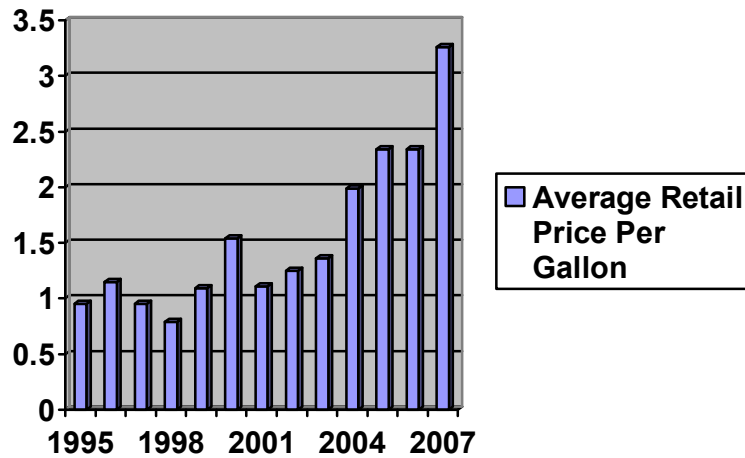
High electricity costs are only part of the financial difficulties that low-income residents face. In Massachusetts, 32.6 percent of all households depend on fuel oil, kerosene, or propane to heat their homes, much higher than the U.S. average of seven to ten percent.⁸ As the price of crude oil nears \$100 a barrel, home heating oil, propane, and natural gas prices have also skyrocketed. During the week of November 26, 2007 the Massachusetts Division of Energy Resources (DOER) survey of full-service heating oil dealers found prices ranging from \$3.00 a gallon to \$3.60 a gallon – a record high.

The survey shows that the average price per gallon was 92 cents, or 39 percent higher than it was the same week in November, 2006. At today's high prices, filling a 250-gallon heating oil tank at the average statewide price would cost \$815, or \$230 more than a year ago.⁹ Multiply that by four heating oil tank refills over the course of the heating season, and the average family will spend nearly \$1,000 more for heat this winter than in 2006.

This trend isn't expected to change. Based on DOER's fuel price surveys for November 27 for the years 1995 to 2007, the chart below shows the upward trend in heating oil prices.

⁸ U.S. Census Bureau. Massachusetts Selected Housing Characteristics, 2006.

⁹ *The Boston Globe*. "Heating oil price sets state record." 11 November, 2007.



Natural gas users will also see higher heating costs this winter. In Massachusetts, 42 percent of households are heated with natural gas, and on average they can expect to pay 10 percent or approximately \$78 more this winter.⁹ Even households that use electricity for heating will see a modest increase in the already high rates: 4 percent or a \$32 average seasonal increase.¹⁰

As prices for heating and electricity continue to rise, some Massachusetts residents will be able to afford higher rates without sacrificing or having to substitute other expenditures. Low-income families however, must often cut back on normal day-to-day expenditures such as food, health care, medication, and other necessities.

Others simply don't have the funds needed and lose service altogether. In a press release dated October 26, 2007, Action for Boston Community Development said it is estimated that there are 10,000 low-income families across Massachusetts that have had their heat and/or electricity shut off for non-payment of bills, and another 5,000 were expected to be added to the list. Utilities have agreed to restore service to those who pay at least 25 percent of what is owed (formerly 50 percent), but for some even that benefit is not enough.

Unfortunately, the problem of not having enough funds to pay for energy is growing and even affecting double-income families. In a November 8, 2007 *Boston Globe* article, "New breed of needy lines up for heating aid," several advocates who run heating programs in Boston's northern suburbs such as Lynn, Haverhill and Peabody used terms such as "panic" and "crisis" to describe the situation. The director of the Haverhill-based Community Action Inc., noted,

⁹ *CNNMoney.com*: "Home heating bill on the rise." 9 October 2007.

¹⁰ *Ibid.*

"requests are up 15 percent from last year's high when his agency served a record 3,453 households...Most of the callers are new to the system and many, he said, are self-employed contractors who have hit hard times because of the slumping housing market."¹¹

"THE HEAT OR EAT DILEMMA"

On October 21, 2007 *The Boston Globe* published an opinion piece by Deborah A. Frank and Joseph P. Kennedy, II titled, "The heat or eat dilemma" in which they cite, "federal research shows that while both rich and poor families increase their expenditures on home fuel during the winter, poor families offset this cost through decreasing food purchases, with an average 10 percent decrease in caloric intake."¹² The effects of notable reductions in caloric intake are especially harsh on infants and toddlers: due to the fact that they lose body heat faster than older children and adults, infants and toddlers are especially prone to winter health threats. And in the three months following the coldest months of the winter, Frank and Kennedy report that "medical researchers found a 30 percent increase in the number of underweight infants and toddlers in the [Boston Medical Center] emergency room..."¹³

SOLUTIONS

There are several federal and state programs in existence to assist low-income families and households struggling to pay their heating and other utility bills. Government assistance is available for fuel, heating system repairs, and weatherization projects. Other non-government programs provide eligible Massachusetts residents with utility discounts and shutoff protection. But many are under-funded and run out of assistance money before the heating season even nears its half-way point.

The Federal Low-Income Home Energy Assistance Program (LIHEAP)

LIHEAP is a federal program which provides annual grants to help low-income families pay their heating and cooling bills.¹⁴ The program is administered by the U.S. Department of Health and Human Services. In 2007 LIHEAP had an operating budget of \$2.16 billion, a cut of about one billion from 2006. States decide the income level that determines eligibility for LIHEAP assistance. In Massachusetts, families with incomes at or below 200 percent of the Federal Poverty Level are eligible for benefits. For a family of four in Massachusetts,

¹¹ Lazar, Kay. *The Boston Globe*. "New breed of needy lines up for heating aid." 8 November 2007

¹² Frank, Deborah A. Kennedy II, Joseph P. *The Boston Globe*. "The heat or eat dilemma." 21 October 2007.

¹³ *Ibid.*

¹⁴ National Energy Assistance Directors' Association.

household income must be equal or less than \$41,300 annually to qualify for LIHEAP assistance.¹⁵

In a 2005 report, titled "2005 National Energy Assistance Survey Report: Key Findings" a survey of 1,100 LIHEAP recipients showed the impacts of high energy costs on low-income families, revealing that the average LIHEAP household spends 14 percent of their annual income on home energy costs.¹⁶ Nineteen percent of survey respondents reported that to maintain home temperatures they have gone without food for at least one day in the past five years due to high utility bills. In extreme cases low-income families place their health on the line in order to meet their energy needs, and 32 percent of LIHEAP survey respondents noted that they did not fill their medical prescriptions or took less than their full dose of medicine to help pay utility bills in the past five years. Survey results also found that 19 percent of LIHEAP recipients have a household member who relies on medical equipment that depends on uninterrupted electrical service.

Due to inadequate funding, rising energy costs and a growing number of families who are eligible to receive funding, LIHEAP is unavailable to most who need it. In fact, only 16 percent of those eligible were able to receive help.¹⁷ Moreover, the size of the average grant is steadily decreasing each year. A family of four at the top allowable income of approximately \$41,300 would get a maximum grant of \$490 and the poorest family about \$860. At \$3.26 a gallon, a 250-gallon tank of heating oil costs about \$815 to fill and only lasts four to six weeks during the coldest weather.

Massachusetts' elected officials recently passed an additional \$15 million in supplemental funding for the LIHEAP program. However, this additional funding only translates to about \$150 more for each of the most desperate households.¹⁸

Massachusetts State Energy Assistance Programs

There are several other assistance programs available to eligible Massachusetts residents. The Citizens Energy Heat Assistance Program provides financial assistance to low-income households, and has programs for both home heating oil and natural gas users. The Good Neighbor Energy Fund which is sponsored by the Salvation Army and local utility companies also helps people struggling

¹⁵ Massachusetts Department of Housing and Development: 2007 LIHEAP Income Eligibility Chart. <http://www.mass.gov/dhcd/components/cs/1PrgApps/LIHEAP/chart07.pdf>

¹⁶ National Energy Assistance Directors' Association National Energy Assistance Survey Report 2005. <http://www.neada.org>

¹⁷ Frank, Deborah A. Kennedy II, Joseph P. *The Boston Globe*. "The heat or eat dilemma." 21 October 2007.

¹⁸ Lazar, Kay. *The Boston Globe*. "New breed of needy lines up for heating aid." 8 November 2007

to pay their energy bills, giving short-term assistance to those who do not qualify for government assistance programs such as LIHEAP. Additionally, utility discounts, arrearage, and shutoff protection programs are also available to help households with financial hardship.²⁰

ENERGY EFFICIENCY MEASURES

Energy efficiency in low-income housing is often substandard. A general lack of understanding and therefore investment in building envelope, heating systems, appliances, lighting and weatherization efficiency measures means low-income households spend more on energy because they use more. A paper titled, "The Economics of Poverty: How Investments to Eliminate Poverty Benefit All Americans," published in June 2006, by Entergy Corporation, Jerrold Oppenheim and Theo MacGregor shows that investments in energy efficiency for low-income homes is especially cost-effective, returning at least \$7 to society for every \$1 invested.

Locally, a joint effort by investor-owned utility companies, community action programs, the Low-Income Energy Affordability Network (LEAN), and energy efficiency organizations called Energy Bucks, (www.energybucks.com) provides grassroots outreach, community-based activities and advertising to encourage qualified households to better understand and apply for existing programs that can help them manage their energy costs. According to the Energy Bucks Web site, more than 800,000 households in Massachusetts qualify for at least one Energy Bucks program-but less than 30 percent participate.

ENERGY GENERATION AND INFRASTRUCTURE PLANNING

Within the next 20 to 30 years, all of Massachusetts' power plants and energy infrastructure will need to be replaced. Unless long-term planning to finance and develop these critical projects is put into motion in the near future, the costs associated with energy and Massachusetts' exposure to volatile energy markets may increase the burdens that low-income families already bear. New sources of energy must also meet the economic and environmental standards of the Bay State; they must be clean, secure, reliable and cost-effective. Unfortunately, the overwhelming majority of proposals to develop new sources of electricity generation face not-in-my-backyard (NIMBY) opposition every step of the way. Unless we plan for our state's future energy needs, all Massachusetts residents will face additional hardships due to rising costs, poor air quality which can lead to health risks, and reliability issues that could result in dangerous electricity shortages and even blackouts.

²⁰ For more detailed information on Massachusetts' energy assistance programs, visit [MassResources.org: http://www.massresources.org/area_assistance.cfm?pageID=14&MainPage='yes'](http://www.massresources.org/area_assistance.cfm?pageID=14&MainPage='yes')

CONCLUSION

Unfortunately, there is no single solution to solve the energy crisis faced by those on fixed and limited incomes. While increased financial assistance and education programs are an important part of helping meet the needs of Massachusetts' less-fortunate, securing an affordable and reliable electricity supply is critical to the well-being of all Massachusetts residents.

Developing new sources of clean energy generation, implementing energy efficiency and conservation programs, upgrading and investing in transmission lines and energy infrastructure, and keeping our current sources of electricity online would help stabilize energy prices and work to solve the energy challenges that affect the Bay State year round.

Mass AREA strongly encourages legislators, policy-makers, and business leaders to develop and implement a long-term energy plan to secure affordable energy for the Commonwealth. By working together and promoting realistic and cost-effective programs and policies to provide low-cost, reliable energy to each and every resident of Massachusetts, we can make sure the Bay State remains a great place to live and work – for all.

The Massachusetts Affordable Reliable Electricity Alliance was founded to ensure that the Commonwealth has an abundance supply of clean, affordable electricity. Mass AREA believes educational outreach is an essential step in completing our mission.