



Building Bridges

**NATIONAL
LOW INCOME
ENERGY
CONSORTIUM**

June 2004

Paid But Unaffordable:

**The Consequences of Energy Poverty
in Missouri — and Elsewhere**

**An overview of a study
commissioned by the
National Low Income Energy Consortium (NLIEC)
and conducted by economist Roger D. Colton**

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Paid But Unaffordable:

The Consequences of Energy Poverty in Missouri

Unaffordable home energy is a fact of life for more than a *quarter of a million* Missouri households. They face a daily struggle to cope with energy poverty — an excessive energy cost burden that frequently affects their health and well-being.

People living in energy poverty are our neighbors. They are young and old, men and women, working and unemployed, living with disabilities, raising children, and on their own. They live in cities and small towns and on farms.

And for most of these 265,000-plus Missourians, the increasingly high cost of heating and cooling their homes is a hardship making their daily lives a challenge.

The National Low Income Energy Consortium (NLIEC) determined the severity of that hardship in its 2004 *Missouri Energy Poverty Study*. The results are both clear and disheartening.

Key findings from the study include:

- Households with incomes below 50% of the federal poverty level pay a staggering 38% or more of their annual incomes simply for their home energy bills.
- Forty-six percent of the households surveyed went without food in order to pay their home energy bills.
- Forty-five percent failed to take medicines, as prescribed by their doctors, in order to pay their home energy bills.
- To cope with unaffordable energy bills, households took actions considered to be detrimental to children's educational achievement: frequently uprooting their children and not making needed purchases of school materials. Seventy percent of the highly transient households were families with children — 35% of whom, in order to pay their home energy bills, also had to forgo the purchase of needed books and school supplies.

The purpose of this study was to document in detail the extent and effect of energy poverty in Missouri — to measure the insecurity experienced by low-income households that face energy poverty and to document the adverse impacts energy poverty has on vital aspects of the lives of the poor — and to draw conclusions that go to remedying the problems, applicable to Missouri and the entire nation.

About the Study

The National Low Income Energy Consortium chose Missouri as the location to conduct the study for a variety of reasons. Its geographic position in America's heartland results in both cold-weather and hot-weather hardships. It has both urban and rural areas, each presenting energy challenges. And its residents use a mix of home heating fuels, including natural gas, electricity and propane.

Poverty in Missouri is extensive. More than 115,000 Missouri households have incomes at or below 50% of the federal poverty level (the federal poverty level being defined by the U.S. Department of Health and Human Services as \$18,850 in 2004 for a family of four); another 70,000 have incomes between 50% and 74% of the poverty level; and 80,000 have incomes from 75% to 99% of the poverty level. More than three-fourths of the Missourians surveyed are living at or below the federal poverty level. A majority of respondents were helped by energy assistance, but still had overwhelming energy burdens.

NLIEC commissioned economist Roger D. Colton of Fisher, Sheehan and Colton to examine both the extent of energy poverty and how Missourians cope with unaffordable home energy costs. Self-administered questionnaires were distributed by organizations and agencies engaged in intake for the federal Low Income Home Energy Assistance Program (LIHEAP). Surveys, which gathered data about the previous year, were collected from January 2004 through March 2004, with a total of 734 usable responses coming from Missouri's 19 community action agencies and directly from the Missouri State LIHEAP office.

The study found that unaffordability of home energy affects the full spectrum of a household's physical, economic and social well-being.

Consequences of Energy Poverty

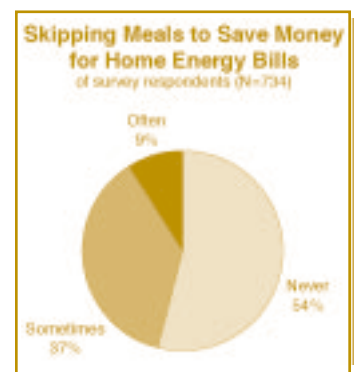
Unaffordable home energy has a variety of serious impacts on low-income households already struggling to meet other bills. In addition to threatening home energy service, energy poverty contributes substantially to hunger, inadequate housing, educational underachievement, health and safety dangers and the inability to retain employment.

Hunger

Low income energy advocates often state that no one should have to choose between heating and eating. These statements are by no means overly dramatic. Nearly half of the survey population — 46% — went without food to pay home energy bills.

Energy-bill induced hunger was found to occur throughout the range of energy burdens and demographic groups. Wage earners, commonly referred to as the “working poor”, had the highest incidence of going without food in order to have

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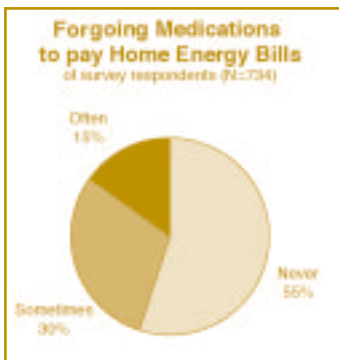
46% went without food to pay home energy bills

enough money to pay home energy bills. Households with young children also had a high incidence of skipped meals. And 44% of the households with incomes below 50% of the federal poverty level went without food in order to pay their home energy bills.

Health Care

In order to pay their energy bills, many low-income Missourians go without prescribed medicines and needed medical care.

Skipping medicines to save money to pay home energy bills is common within the survey population. Nearly half the respondents — 45% — failed to take their medicine, or they took less medicine than their doctors prescribed, in order to pay their home energy bill.



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Forgoing prescribed medicines or taking less than the prescribed dosage occurred most often in the most extreme poverty levels. More than 40% of those who took such measures had incomes below 50% of the federal poverty level, and three-quarters of those who did so had incomes below 100% of the federal poverty level.

Low-income Missourians also went without seeing doctors and dentists altogether because of unaffordable home energy bills. Public assistance recipients and households with unemployed persons had the highest incidence of forgoing medical care.

Compounding this problem is the fact that failing to take prescribed medicines and failing to seek needed medical care in order to pay energy bills are coping mechanisms that rarely are independent of each other. Among respondents who frequently went without medicine in order to pay for their home energy bills, 93% also had skipped medical visits. Likewise, 74% of respondents who frequently had forgone medical visits had also gone without prescribed medicines.

Housing

Shelter is intended to protect people from the elements. But when a home becomes uninhabitable because the resident cannot afford to heat or cool it, the housing is not performing one of its most basic functions.

Unaffordable energy bills unquestionably result in some households being denied the use of parts of their homes during hot or cold weather. More than 60% of those surveyed said they closed off one or more rooms because they could not afford to heat or cool the space.

In addition, unaffordable home energy bills can force low-income households to abandon their homes altogether for all or parts of a day because they cannot stay warm or cool in their homes.

Households that had a member with a disability, as well as those receiving public assistance, most frequently needed to abandon their homes because they could not afford to heat or cool them. With their rates for frequently leaving home reaching 10% and 8% respectively, those respondents were twice as likely as the general survey population to be denied the full use of their homes due to a lack of heat.

In both the cases where energy poverty causes a household to close off portions of a home, and where the household must abandon a home altogether for full or partial days, unaffordable energy bills deprive a household of the use of its home in its most fundamental capacity.

Safety

Energy poverty presents substantial safety risks to low-income households in Missouri. Of particular note is the risk of fire.

According to the National Fuel Funds Network, “the winter heating season presents the most dangerous time for home heating fires.”

It is common for low-income households to use their kitchen ovens as space heaters when having trouble paying their heating bills.

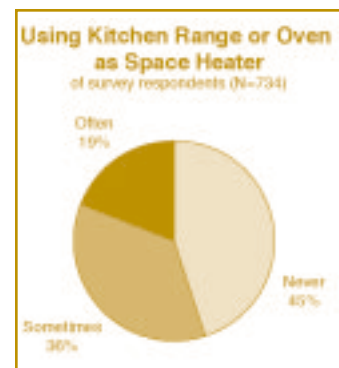
Among survey respondents, 54% reported having used their ovens for space heating. And a high percentage of those 397 households that reported using the oven for space heating — 59% — had experienced disconnections or discontinuances of service for nonpayment.

Using an oven for space heating, and the accompanying safety risk of carbon monoxide poisoning or fire, occurs most frequently among those with the highest energy burdens. While 11% of the households with the lowest home energy burdens had often used their ovens for heating, the frequency of doing so more than doubled to 23% of households for those with energy burdens exceeding 20%.

Education

Energy poverty has an adverse affect on children’s educational achievement. Unaffordable energy bills were documented as a substantial contributor to the transience of low-income households with children, which in turn, harms educational achievement. When students are frequently uprooted, they have difficulty keeping pace with the educational curriculum.

In addition, teachers have more difficulty assessing the knowledge, strengths and weaknesses of transient students. Third-grade students who have changed schools frequently are *two-and-a-half times more likely* to repeat a grade than third graders who have never changed schools. Highly transient students are more likely to be below grade level in both reading and math.



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Among survey respondents, 22% were frequent movers. This includes households that either had moved twice in two years or had moved once in the past year and intended to move again in the next year. Transience has a substantial effect on households with children. More than 70% of all frequent-mover households in the study had children under age 18; 44% had children under age 6.

A second way that energy poverty affects educational achievement is by impairing the ability of parents to provide adequate school books and supplies. Of the 159 frequent-mover households responding to a question about school books and supplies, 35% did not buy school books or supplies for their children in order to pay for the home energy bill.

Employment

Transience also has an impact on employment, particularly among low-wage workers. Transience for low-wage workers reduces wages earned by reducing the hours worked, as households seek out new housing. This occurs even if the worker succeeds in keeping his or her job after the move.

Many employment problems can be traced to unaffordable home energy. Nearly one in six frequent-mover households cited an energy-related reason as the primary reason for their most recent move. Of the 161 highly transient households, 23 indicated that the primary reason for their move was to have lower energy bills.

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Measures Taken in Order to Pay Energy Bills

Percentage of Respondents (N=734)

Action	Often	Sometimes	Never
Skipping meals	9	37	54
Skipping medicines	15	30	55
Avoided medical appointments	24	36	40
Used kitchen oven for space heating	19	35	46
Left home temporarily (could not afford to heat it)	6	25	69
Left home temporarily (could not afford to cool it)	7	31	62
Closed off space in home (could not afford to heat)	32	34	34
Closed off space in home (could not afford to cool)	32	31	37

The Home Energy Insecurity Scale

The extent of the problem of energy poverty was measured in this study employing a scale that had been developed previously by the survey analyst, Roger D. Colton, for the U.S. Department of Health and Human Services. The scale uses five thresholds measuring energy self-sufficiency in a household:

- A *thriving* household has achieved generally accepted standards of well-being without outside assistance or financial strain.
- A *capable* household is secure, even though not having achieved the full range of generally accepted standards of well-being.
- A *stable* household does not face significant threats and is unlikely to be in immediate crisis.
- A *vulnerable* household is not in immediate danger, but may be avoiding danger only through temporary or inappropriate solutions.
- An *in-crisis* household faces immediate needs that threaten the household’s physical and/or emotional well-being.

Home Energy Insecurity Ratings of Survey Respondents (N=734)					
	In Crisis	Vulnerable	Stable	Capable	Thriving
Number	361	334	22	14	3
Percentage	49.1	45.5	3.0	2.0	0.4

Missouri low-income households were *in-crisis* if they frequently were denied full use of their home in hot or cold weather, used dangerous methods of space heating, went without basic household necessities in order to pay their home energy bill or were subject to disconnection or discontinuance of service.

49% of In-Crisis households said they did not go to the doctor or dentist in order to pay their home energy bill. In addition, 31% said they went without medicine as prescribed by the doctor.

Households were *vulnerable* if they frequently: lacked enough money to pay a home energy bill on time without outside help, failed to pay the bill when due or received service disconnection notices, reduced energy use to uncomfortable or

inconvenient levels, or had to forgo use of some part of the home because they could not afford to heat or cool it, and occasionally: experienced disconnection of service, used the oven as a source of space heating, or went without food, health care or medicine in order to pay a home energy bill.

Going without medical care (49%), experiencing occasional disconnection of service (39%) and using inappropriate appliances for space heating (46%) were the three indicators most frequently experienced by these Missouri low-income households.

Households were *stable* if they frequently: could not afford to heat or cool their home to a comfortable temperature, could not use hot water or appliances as much as they wished, and worried about whether their home energy bill would become due before they could get money to pay it; and occasionally: left home for all or part of the day because they could not afford to either heat or cool their home, or turned off their hot water because there was not enough money to pay the home energy bill; and frequently or occasionally received a warning that service would be disconnected or discontinued due to nonpayment, but did not actually reach the point of having service terminated.

More than three-quarters of the Stable households (77%) received frequent disconnection warnings without actually having experienced the loss of energy service. In addition, 36% said they frequently worried about whether their bill would become overdue before they could get money to pay for it.

Capable households no more than occasionally: worried about whether their home energy bill would become due without having money to pay for it; either did not pay their home energy bill due to a lack of money or had their energy bill become due without having money to pay it absent outside help; had to adjust their use of heating, cooling, hot water or appliances because they did not have money to pay the energy bill; or had to forgo the use of part of their home because they could not afford to heat or cool it.

In households classified as Capable, 100% of the respondents said they worried about whether their home energy bill would become overdue before they could pay it. A somewhat smaller percentage, but still very large, reported that their bill occasionally became due without their having the money to pay it unless someone else helped them.

A household was *thriving* if it never experienced any of the energy insecurity indicators. Only three respondents were classified as thriving, an insufficient number to provide a quantitative description of the population.

Affordability of Home Energy

Affordable energy is defined as an energy cost of 6% or less of annual household income. But energy is far from affordable for low-income Missourians. In fact, the number of Missouri households facing a crippling energy burden is staggering.

Among the survey respondents, 87.6% reported home energy bills well above the 6% affordability threshold.

The more than 115,000 Missouri households who have incomes below 50% of the federal poverty level face a home energy burden that is 38% of their incomes or higher. Another 70,000 households in the state have incomes from 50% to 74% of poverty and have a home energy burden of 16% of their income, while 80,000 Missouri households with incomes from 75% to 99% of the federal poverty level have home energy burdens of 11%.

Data published by the U.S. Census Bureau in 1992 show that poor families are three times as likely as higher-income families to be unable to pay their utility bills: 32.4% compared with 9.8%. There is a clear difference, however, between non-payment of home energy bills and energy affordability.

While survey respondents experienced both service disconnections and the frequent receipt of disconnect warnings from their energy suppliers, the inability to pay does not necessarily lead to non-payment. In fact, energy bill payment occurred in the majority of cases. The problems arise from the sacrifices poor families make to pay those bills.

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LIHEAP in Missouri and Nationwide

Although proven important in reducing energy hardships both nationally and in Missouri, energy assistance, alone, is insufficient at its current levels to adequately serve the entire population of low-income households in need. And the support provided through energy assistance frequently still leaves households with unmanageable expenses, along with the social and economic problems associated with energy poverty. Nearly three-quarters of the energy assistance respondents reported receiving a warning that service was to be disconnected or discontinued for nonpayment.

The LIHEAP statute requires states to target benefits to those households with the lowest incomes and the highest energy costs, or households with high energy burdens and very young children, individuals with disabilities, and frail older individuals (vulnerable households).

Under federal law, states may establish their own income eligibility guidelines, within federally legislated parameters, but the limited amount of LIHEAP funding

highlights the careful balance states must make in setting eligibility criteria and benefits levels. Missouri's LIHEAP program sets eligibility at 125% of the federal poverty level. Obviously, it does not serve all low-income households, hence the emphasis on targeting assistance to the most vulnerable households is paramount. And even with its eligibility restrictions, as is typical with many states throughout the nation, Missouri's LIHEAP crisis funds were depleted before its heating season ended and, therefore, this emergency support was unavailable to potentially qualified applicants.

Although setting a broader eligibility standard and further outreach to potentially eligible low-income households might increase participation in the state's energy assistance program, increased participation would not result in increased funding. As a result, higher participation rates would result in a lower home energy support for each LIHEAP recipient. Already inadequate funding would become even more inadequate if spread more thinly because of increased participation.

The gap between energy assistance support and household need is not unique to Missouri. There are indications that similar situations occur throughout the nation.

Easing the Energy Poverty Gap

The nationwide Home Energy Affordability Gap for heating and cooling in 2003 has been calculated to be nearly \$18.2 billion. The primary means of bridging this gap involves funding for energy bill assistance.

Low Income Home Energy Assistance Program

LIHEAP money is allocated by the federal government to the states through a complex formula that takes into account a state's low-income population, weather (heating degree days), home heating and total residential energy expenditures. LIHEAP nationwide is currently only funded at about \$2 billion per year. As a result, less than 15% of those eligible for the program have been served.

During 2003, approximately 4.6 million households nationwide received LIHEAP — only 13 percent of the more than 34.6 million households that were eligible. In Missouri, about 105,000 households received LIHEAP during 2003, 17% of the 611,700 households that were eligible.

As is the case nationally, energy assistance at its current funding level is inadequate to help alleviate energy poverty problems facing Missouri's low-income population. Actual low-income energy bills exceeded affordable energy bills in Missouri by nearly \$286 million at 2003 fuel prices, and Missouri's 2003 LIHEAP allocation was only \$40 million.



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Nationwide and in Missouri, LIHEAP funding is grossly inadequate to sufficiently serve all the households in need. Additional funding for the Low Income Home Energy Assistance Program would reduce the energy burdens of low-income households.

State-Funded Programs

One of the most effective low-income fuel assistance program structures outside LIHEAP and federally subsidized housing utility allowances involves the delivery of rate discounts through public utilities.

Not all low-income households use utility fuels such as natural gas and electricity as their primary heating source, yet the existence of electricity is nearly universal, and the combination of gas and electricity heating covers the vast majority of low-income households throughout the nation. A variety of program designs, target populations, and justifications exist for the utility programs that operate across the nation. The experience from these public benefits programs merits consideration of their use in other states.

The Pennsylvania Customer Assistance Program (CAP) is an exemplary, comprehensive statewide effort by utilities to address the payment problems of low-income households. Generally, customers enrolled in a CAP agree to make monthly payments based on household family size and gross income in exchange for continued provision of utility service.

Other state public benefits programs of note include New Hampshire's Electric Assistance Program, providing tiered discounts; New Jersey's Universal Service Fund, operating as a "fixed credit" program; Maryland's Electric Universal Service Program, operating as a supplement to LIHEAP; and Ohio's Percentage of Income Payment Plan, which is based on a straight percentage of income. Illinois, Wisconsin, Oregon, Texas, Montana and California also operate public benefits programs that provide rate affordability assistance.

Fuel Funds

Fuel funds are local agencies that provide charitable energy assistance, generally to prevent disconnection of service for non-payment. Missouri has a number of long-established and successful fuel funds. In fact, during 2003 over \$7 million in energy assistance funding was leveraged by Missouri fuel funds. Public utilities across the country should recognize the benefits of engaging in aggressive fundraising efforts to local fuel funds. Aggressive fundraising can occur in at least the following ways:

- Utilities can engage in direct outreach to customers on a periodic basis. Ideally, utilities could provide fuel fund solicitation no fewer than four times a year.

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- Utilities can seek to enroll customers in regular contribution programs rather than merely seeking one-time contributions. Program enrollment involves customers agreeing to donate on a regular basis through a line-item on the bill. Once enrolled, the participation continues until the customer opts out of the program.
- Utilities also can solicit customers to donate refunds or other rebates provided by the utility. This refund might involve excess earnings sharing of a utility operating under an earnings cap, refunds of interim base rate increases collected under bond subject to refund, gas pipeline refunds or other money directed back to the customer.
- Finally, they can adopt fuel fund contribution mechanisms to be used during on-line payment. As an increasing number of customers move to on-line payment of bills, the proportion of contributions decreases in the absence of a specific on-line contribution mechanism.

Additional Measures

Generating additional funding for bill payment assistance is certainly not the only means of easing energy poverty. Weatherizing low-income homes, for example, can reduce energy needs for many low-income households. Like fuel assistance, however, weatherization efforts are limited by funding.

Federal Weatherization Assistance Program dollars will never be adequate to serve all eligible low-income homes needing weatherization within a reasonable period of time. According to the National Association of State Community Service Programs, Missouri weatherized roughly 6,200 housing units from 1999 through 2001 — the most recent data available. But with 265,000 Missouri households living in energy poverty, weatherization makes only a small dent in the statewide needs of low-income households. And for some households with very low incomes, no amount of weatherization, alone, will lower their bills to an affordable energy burden.

The Energy Poverty Study identifies two additional programs that provide relief for low-income energy consumers. In both cases, what is needed to make these sources most effective is more advocacy and oversight to ensure that those in need have total access to funds earmarked to serve them.

The first of these is the federally subsidized housing utility allowance, provided year round to low-income families through public- and assisted-housing programs that receive funding from and are regulated by the U.S. Department of Housing and Urban Development (HUD). The report raises concerns that some local managing agencies, Public Housing Authorities (PHAs), may be providing lower levels of utility support than is intended by HUD regulation, to the detriment of the programs' recipients. This is an opportunity for the low income energy community

to help reduce energy poverty by participating in the oversight of PHA activities related to utility allowances, and to advocate for those payments to be at levels that reflect current energy prices and usage.

The second source mentioned by the study is the calculation of federal Food Stamp benefits provided by the U.S. Department of Agriculture. Here, the household energy costs as part of overall shelter costs are a factor in determining the monthly food stamp allotment. As with PHA utility allowances, oversight is needed to ensure that increases in energy costs are recognized and that shelter costs and standard utility allowances are regularly recalculated, so as to provide low-income households maximum benefits.

Addressing the affordability issue reaches well beyond the primary goal of ensuring adequate home energy for the poor. It also has the potential to generate a much wider range of benefits, as well. For this reason, the study went beyond discussing payments that are directly tied to unaffordable energy bills.

As an example, the Earned Income Tax Credit (EITC) is a program that offers financial support to some of the poorest households. Moreover, it has the potential to provide that support in the latter part of the heating season, a time of year when so many low-income households are suffering the effects of unaffordable energy bills. EITC is underutilized, and better outreach is needed to maximize public awareness and increase low-income households' participation in the program.

Building Bridges

As has been stated, there are many avenues for reducing the home energy affordability gap. They involve advocacy, outreach, oversight, and partnerships between governments, energy providers and community-based agencies; and of course, they involve additional funding.

This study makes it clear that energy poverty affects the full spectrum of a household's economic, social and physical well being. In addition to being a direct threat to the ability to retain home energy service, energy poverty is a substantive contributor to hunger, inadequate housing, educational underachievement, health and safety dangers, and the inability to retain employment.

The low income energy community must build bridges with the communities that advocate for support of other basic household needs of the poor. Together, these networks can do much more!

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