

**PERCENTAGE OF INCOME PAYMENT PLANS AS  
AN ALTERNATIVE DISTRIBUTION OF LIHEAP BENEFITS:  
Good Business, Good Government, Good Social Policy**

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## TABLE OF CONTENTS

<b>INTRODUCTION .....</b>	<b>1</b>
<b>PART I:STATUS OF LOW-INCOME MASSACHUSETTS CUSTOMERS.....</b>	<b>3</b>
<b>PART II:THE PIPP ALTERNATIVE.....</b>	<b>6</b>
A.THE PERCENTAGE OF INCOME PAYMENT PLAN CONCEPT .....	6
B.PIPP RESULTS FROM OTHER STATES.....	8
<b>PART III:NON-PIPP ACTUAL COST-BASED ALTERNATIVES.....</b>	<b>11</b>
A.THE LIHEAP LIFELINE RATE .....	11
B.THE LIHEAP OUTLIER BUY-DOWN PROGRAM .....	16
C.ACTUAL COST CRISIS PROGRAM.....	19
1.Shutoffs as Crisis Eligibility Criterion .....	20
2.Competing Public Policies .....	23
3.The Actual-Cost-Based Crisis Alternative .....	26
D.Summary and Discussion .....	28
<b>PART IV:ARREARAGE FORGIVENESS .....</b>	<b>30</b>
A.THE POLICY JUSTIFICATION.....	30
B.CUSTOMER PAYMENTS TOWARD ARREARS .....	34
C.WHO BEARS THE COST OF ARREARAGE FORGIVENESS.....	36
<b>PART V:INCOME-BASED ASSISTANCE AND CONSUMPTION PATTERNS .....</b>	<b>38</b>
A.THE EMPIRICAL RESULTS .....	38
1.Rhode Island	38

2.Minnesota	39
3.Ohio	40
4.Montana	41
5.Illinois	43
6.Philadelphia Electric Company .....	43
B.PRICE SIGNALS AND INCOME BASED PROGRAMS .....	44
1.The Theoretical Shortcomings.....	45
2.The Practical Shortcomings.....	45
C.SUMMARY	47
<b>PART VI:PIPP AS IT RELATES TO EMERGENCY ASSISTANCE FOR FAMILIES WITH CHILDREN .....</b>	<b>49</b>
<b>PART VII:EVALUATION OF PROGRAM RESULTS .....</b>	<b>51</b>
<b>CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>60</b>
<b>APPENDIX A:BASIC DESIGN OF A RECOMMENDED PIPP .....</b>	<b>62</b>

## INTRODUCTION

The decline in federal funding of the Low Income Home Energy Assistance Program (LIHEAP) in recent years has made more imperative than ever the need to ensure that what funds *do* exist are distributed in the fairest and most efficient way possible. Fairness guarantees that some households are not **over**paid while others are **under**paid in relation to need. Efficiency guarantees that distribution occurs with a minimum of complexity and a maximum of understandability both by the service providers and by the benefit recipients.

To seek such an end is good government, good business, and good social policy. From the perspective of the government, the appropriate distribution of LIHEAP funds results in promoting the goal of the program in the first instance: to distribute fuel assistance in a manner that makes home energy affordable for low-income households. From the perspective of the utility business, the appropriate distribution of LIHEAP funds results in even the lowest income households with the highest usage having a reasonable chance of paying their bills in full. This eliminates expenses incurred for credit and collection activity, working capital, bad debt and the like. From the perspective of society, the appropriate distribution of LIHEAP funds results in the elimination of the threats to low-income health, safety and welfare associated with inability to pay for a basic household necessity.

The purpose of this report is to examine the method for distributing LIHEAP benefits in the Massachusetts Electric Company service territory. The report will consider alternatives to the existing distribution methodology and will suggest one particular alternative to that system to be implemented on a demonstration basis.

More particularly, the following review is divided into seven major sections:

**PART I:** looks at the present status of LIHEAP customers in the Massachusetts Electric Company service territory. It seeks to determine whether LIHEAP benefits are currently being administered so as to best distribute funds based on actual energy costs.

**PART II:** examines a Percentage of Income Payment Plan (PIPP), the recommended method for distributing LIHEAP in the Massachusetts Electric Service territory. This section introduces the PIPP concept and implementation and considers the advantages of implementing a PIPP for Massachusetts Electric Company. Part II recommends the pursuit of a (PIPP) on a limited demonstration basis.

**PART III:** reviews three different non-PIPP "actual-cost-based" alternatives for distributing LIHEAP funds in the Massachusetts Electric

service territory.

**PART IV:**considers the efficacy of an arrearage forgiveness program, a fundamental component of any effort to rationalize the distribution of LIHEAP.

**PART V:**reviews the impact that income-based energy assistance programs have had on customer consumption patterns.

**PART VI:**suggests that the Commonwealth of Massachusetts examine the federal Title IV-A Emergency Assistance Program as a source of supplemental funds to help fund the provision of LIHEAP and associated benefits to low-income Massachusetts Electric Company households.

**PART VII:**proposes an evaluation plan through which to determine whether the demonstration project undertaken by the Company should be continued, expanded or abandoned. This evaluation is designed, also, to determine the extent to which, if at all, the demonstration PIPP yields benefits or imposes burdens on all participating parties.

Before beginning the examination of how LIHEAP is distributed in Massachusetts, however, it is first necessary to obtain an overview of the energy payment status of low-income households in the Commonwealth.

## PART I: STATUS OF LOW-INCOME MASSACHUSETTS CUSTOMERS.

Low-income households in Massachusetts are not "making it." Data from the LIHEAP program for FY 1988<sup>1\</sup> is an excellent surrogate for low-income households in general. Massachusetts households who participated in LIHEAP had an average income of \$7,170 in 1988. Of that money, households devoted, on average, \$1,269 toward their annual home energy costs (18 percent of their annual income). After paying winter heating bills, Massachusetts LIHEAP households had a weekly income balance of \$103 for *all* other household expenses, including food, housing, transportation, clothing, medical care, telephone and water service.<sup>2\</sup> To put this figure in perspective, on average, low-income households spend \$67 per week on food alone, \$60 per week on housing alone (excluding energy), and \$39 per week on transportation alone.

Specific data on households which depend on AFDC, SSI and Social Security as their primary source of income is even more telling of the energy plight of low-income Massachusetts residents.<sup>3\</sup> The maximum monthly benefit for an **AFDC** household of three in 1988 in Massachusetts was \$550. Massachusetts AFDC households receiving this maximum benefit spend roughly 20 percent of their income on home energy and have on average \$93 per week remaining after paying their winter home heating costs. The maximum monthly benefit for an elderly individual receiving **SSI** in January 1988 in Massachusetts was \$483. That individual would spend 22 percent of her income on home energy and have an average of \$77 per week left after paying her winter home heating bills. The average monthly **Social Security** benefit to nondisabled widows and widowers in Massachusetts in 1988 was \$494. That person would spend more than 21 percent of her income on home energy and, after paying winter home heating bills, have a weekly income left of \$80 for all other living expenses.

The level of an energy bill, standing alone, is not a good indicator of whether households might face payment troubles with that bill. For example, in a recent study of energy use in Jefferson County, Kentucky (Louisville),<sup>4\</sup> the

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<sup>1\</sup>This is the most recent data available.

<sup>2\</sup>National Consumer Law Center, *Energy and the Poor: The Forgotten Crisis* (May 1989).

<sup>3\</sup>Nevertheless, as discussed in detail below, one cannot solely rely upon population averages in analysis. By their nature, averages mask the extremes.

<sup>4\</sup>National Consumer Law Center, *The Percentage of Income Payment Plan in Jefferson County, Kentucky: One Alternative to Distributing LIHEAP Benefits*, at 11 - 12 (March 1991).

National Consumer Law Center (NCLC) found that household energy use declines as income declines. Despite these lower bills by the lower income households, however, the *burden* imposed on households is substantially greater. For the Louisville households, the burden of their total annual energy bills as a percent of income varied directly with income as follows:<sup>15)</sup>

<b>INCOME</b>	<b>TOTAL ENERGY BILL</b>	<b>PCT OF INCOME</b>
<b>\$0-\$6000:</b>	\$915	27%
<b>\$6001-\$10000:</b>	\$1,037	14%
<b>\$10000+</b>	\$1,162	10%

The LIHEAP program is designed to provide assistance to help pay home energy bills. Historically, however, the level of benefits to be paid through the LIHEAP program was set on factors that had little relation to the burden which a household's energy bill created for particular low-income families. LIHEAP benefits have generally been established on the basis of the interplay between several objective criteria, such as income, household size, fuel type and climate zone. Because low-income usage varies so much (in part because housing quality varies widely), however, the resulting benefits have not necessarily tracked consumption or the energy burden borne by the household.

The targeting of LIHEAP funds to pay for the low-income bills has varied widely within states as well. Of the seven states where NCLC has undertaken LIHEAP studies,<sup>16)</sup> the LIHEAP coverage of energy bills has varied from nearly zero percent to over 100 percent. Moreover, even after LIHEAP benefits have been paid, energy bills as a percent of income for eligible households significantly varied, ranging from zero<sup>17)</sup> to more than fifty percent.

It is not a sufficient answer to these problems to state that Massachusetts LIHEAP benefits are based on a variety of factors. The federal statute *requires* that benefits be targeted such that the highest benefits go to those households with the highest actual bills taking into consideration household size and income. The LIHEAP program serving Massachusetts Electric Company customers can

<sup>15)</sup>This is before the receipt of LIHEAP.

<sup>16)</sup>Maine, Rhode Island, Kentucky, Wisconsin, Minnesota, Montana and Utah.

<sup>17)</sup>This occurs when the benefits exceed the actual energy bill.

be redesigned to better meet that statutory test.

Given this observation, the question next arises as to what alternatives might be considered to improve the delivery of LIHEAP benefits. Alternative courses of action are considered below. The recommended alternative, a Percentage of Income Payment Plan (PIPP), helps to rationalize the distribution of energy assistance benefits. While the actual dollar amount of benefits provided to households may differ substantially, the benefits serve to equalize the energy burdens as a percentage of income for all families.



## PART II: THE PIPP ALTERNATIVE.

The reasonableness of the distribution of LIHEAP funds in Massachusetts is to be measured by the language found in the Low Income Home Energy Assistance Act of 1981 (as amended). That statute requires that:

the highest level of assistance will be furnished to those households which have the lowest incomes and the highest energy costs in relation to income, taking into account family size.<sup>8\</sup>

The following review of alternatives to the Massachusetts distribution of LIHEAP benefits concentrates on whether LIHEAP can be targeted to actual home energy costs so as to more accurately meet the requirements of this statute. Moreover, this report will examine whether LIHEAP can be effectively targeted so as to minimize the risk of nonpayment to the utility. The premise for each alternative studied below is that a better targeting of LIHEAP benefits will result in tangible benefits to the state LIHEAP program, to participating LIHEAP recipients, and to participating utilities (and their non-low-income customers).

The alternative recommended by this report is to adopt for the Massachusetts Electric service territory, on a demonstration basis limited in both geographic area and in time, the same alternative now used to distribute LIHEAP benefits to customers of Narragansett Electric Company<sup>9\</sup> in Rhode Island: a Percentage of Income Payment Plan (PIPP). The outline of such a program is set out in Appendix A.

### 1.1 THE PIPP CONCEPT AND ALTERNATIVES.

The basic attribute of a Percentage of Income Payment Plan (PIPP) is that if a household makes its designated monthly payment,<sup>10\</sup> LIHEAP will pay the difference between that household payment and the actual home energy bill. As the program name implies, the household payment is set at a pre-determined percentage of the household's annual income, to be paid in regular equal monthly installments. Under a PIPP, once a household makes its monthly payment, the

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<sup>8\</sup>42 U.S.C.A. § 8624 (1987 and 1990 supp).

<sup>9\</sup>Narragansett Electric Company is an affiliate company of Massachusetts Electric Company.

<sup>10\</sup>These are commonly called "copayments."

obligation arises on the part of the state to provide the requisite LIHEAP benefit for that month. If the household payment is not made, no LIHEAP benefit is provided. Through this household/LIHEAP payment process, LIHEAP benefits are distributed so that, if the copayments are kept at an affordable level, a household's entire energy bill is paid each month, even though the *household's* payment is set at a percentage of income that may not cover the entire current bill.

Through a PIPP, funds are distributed using a matrix taking into account household income and household size. Households with smaller incomes or larger family sizes, in other words, pay a correspondingly smaller portion of their income toward their home energy bills.

Two variations of a PIPP can be considered for Massachusetts Electric:

**1.1.1 Winter PIPP:** The first variation applies the PIPP household payments only to winter energy bills.<sup>\11\</sup> Pursuant to such a program, a household's six month winter income is assumed to be half of its annual income as verified for purposes of determining LIHEAP eligibility. The PIPP household percentage is multiplied times the income to derive the six month household payment. This payment is then subtracted from the six month winter energy bill to determine the PIPP benefit. All households are provided a minimum *heating* benefit.<sup>\12\</sup>

**1.1.2 Annual PIPP:** The second PIPP variation applies the PIPP household payments to household energy bills on an annual basis. Pursuant to such a program, a household's annual income is multiplied times the PIPP percent to derive the annual household payment. This payment is then subtracted from the annual energy bill to determine the PIPP benefit.<sup>\13\</sup> As with the winter program, no household is provided less than a minimum heating benefit regardless of percentage of income payments.

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<sup>\11\</sup>"Winter" is defined to be the six months of November through April.

<sup>\12\</sup>Thus, a household whose percentage of income payment exceeds the actual bill would receive a minimum payment of, for example, \$100. So, too, would a household whose percentage of income payment falls \$50 short of paying the full energy bill receive the minimum \$100 payment. A minimum heating payments appears to be required by the federal LIHEAP statute.

<sup>\13\</sup>Where the household receives natural gas and electricity from separate companies, two different PIPP benefits would be provided. Moreover, the heating and non-heating percentage of income household payments can differ.

The annual PIPP alternative in fact results in a *smaller* expenditure of LIHEAP funds than its winter counterpart. During the non-heating months, as PIPP customer copayments exceed current monthly consumption,<sup>14)</sup> households will during the non-heating months effectively pay back some of the LIHEAP benefits received during the heating season.

**1.1.3 Other considerations:** Innumerable variations on PIPP programs can be devised. The primary variation is to limit PIPP to the primary heating component of a household's home energy bill. Under such a program, if the household heats with natural gas, PIPP can be implemented either on a full-year or on a winter basis. Under such a limitation, no PIPP benefit is provided to a household for its electric consumption. A related alternative is to provide a total energy PIPP but to limit participation in the "secondary" PIPP (e.g., electricity for a natural gas heating home) only to those households who *also* participate in the program designed for the primary heating component.

To include the secondary energy source makes the fundamental recognition that loss of non-heat electricity can disable a home heating system. The inclusion of secondary energy vendors contributes to the success of the program. These variations, however, are largely driven by budget considerations. Given the existing LIHEAP budget for Massachusetts, it is unclear whether sufficient dollars exist to fund both heating payments and non-heating payments.

## **B. PIPP RESULTS FROM OTHER STATES.**

A PIPP is the ideal means of distributing LIHEAP assistance so as to tie LIHEAP benefits to the actual cost of providing energy service. It ensures that the greatest benefits go to the households with the highest energy bills taking into consideration household size and income. If the payment levels are

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<sup>14)</sup>Since under a PIPP, all participating households are billed on a levelized 12 month billing plan, it is not immediately apparent from the bill when this cross-over occurs.

reasonable, the PIPP combines a sensitivity to the financial capability of low-income households with the proven benefits of monthly payment plans.

In addition, PIPPs have been proven to work. The Rhode Island PIPP, for example, has resulted in an improvement in payment patterns for both the natural gas and the electric companies. At the end of the first program year, instead of having 55 percent of its pre-PIPP LIHEAP households three or more months behind on their bills, Providence Gas had 95 percent of its PIPP households totally current or only one month behind. Similarly, instead of having 45 percent of its LIHEAP households three or more months behind, Narragansett Electric had 95 percent of its PIPP households either totally current or only one month behind.

Experience from the Clark County (Washington) Public Utility District is nearly identical. Clark County has implemented what it terms its "Guarantee of Service Program" (GOSP). Through that program, household payments are set at no more than nine percent of household income. That utility has reported:

The change in customer payment practices is best illustrated by the following statistics: Out of 1,966 GOSP participants, 86 customers were removed from the plan for default. 161 customers were two months past due. This equated to an overall success rate of 76 percent of GOSP customers who were *completely current* in their obligation. 87 percent were one payment or less in arrears. When you consider that 67 percent of all those entering the plan had a delinquent balance, the results are impressive. (emphasis added).<sup>\15\</sup>

According to the Clark County Public Utility District's September 1990 *Program Evaluation*:

Everyone involved with GOSP is benefiting from the program, whether it be the low-income client, DCS,<sup>\16\</sup> utilities, or DSHS.<sup>\17\</sup> The majority of low-income clients on

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<sup>\15\</sup> *GOSP: Program Evaluation, Guarantee of Service Plan, Clark County Department of Community Services*, at § 9 (September 1990).

<sup>\16\</sup> Department of Community Services (county agency).

<sup>\17\</sup> Department of Social and Health Services (state agency).

GOSP are maintaining a regular budget plan, often for the first time; DCS and DSHS are able to serve more clients, even with federal budget cuts; and the utilities<sup>\18\</sup> are showing a lower payment delinquency rate within the low-income client base. GOSP is working in Clark County.<sup>\19\</sup>

In both Washington State and Rhode Island, the PIPP/GOSP<sup>\20\</sup> has been viewed as successful by all involved parties. The time has come to experiment with bringing this program to Massachusetts.

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<sup>\18\</sup>Clark County Public Utility District and Northwest Natural Gas Company.

<sup>\19\</sup>Transmittal Letter, *GOSP: Program Evaluation, Guarantee of Service Plan, Clark County Department of Community Services* (September 1990).

<sup>\20\</sup>PIPPs have been known by a number of program names. PIP, PIPP, Fair Share, Guarantee of Service Plan, Consumer Assistance Program and the like. The primary uniting concept is the tying of low-income household energy payments to a percentage of income.

### **PART III. NON-PIPP ACTUAL-COST BASED ALTERNATIVES.**

Three actual-cost based alternatives exist to the PIPP structure for distributing LIHEAP in Massachusetts. These alternatives are based on a synthesis of a variety of LIHEAP distribution systems in different states. The uniting factor among each of the alternatives studied in this section (as well as with the PIPP) is the fact that they tie the distribution of LIHEAP benefits to actual costs. In this fashion, the inequitable distribution inherent in LIHEAP grants not tied to actual cost will be remedied to the benefit of the clients, the company and the state.

The three actual-cost LIHEAP alternatives studied in this report include:

- 1.The LIHEAP Lifeline Rate
- 2.The Outlier Buydown Program
- 3.The Actual Cost Crisis Program

Each alternative has several ways in which it can be implemented.<sup>121\</sup> Those alternatives will be discussed to the extent necessary to provide an adequate description of available options.

#### **A. THE LIHEAP LIFELINE RATE.**

The LIHEAP Lifeline Rate is one mechanism for the distribution of LIHEAP benefits which can be viewed as an alternative to a "true" PIPP. While not ideal in the theoretical sense, the LIHEAP Lifeline Rate predicates the distribution of LIHEAP benefits on both actual energy costs and the burden which those costs impose on households as a percentage of income. The LIHEAP Lifeline Rate is administratively simple from all perspectives: the State, the utility and the client. The LIHEAP Lifeline Rate helps bring home heating bills into a more affordable range for LIHEAP recipients.

The basic component of the LIHEAP Lifeline Rate is a percentage discount provided by the participating utility and paid for through LIHEAP benefits. The Lifeline discount is calculated using actual home energy bills for the prior year's LIHEAP recipients. The magnitude of the Lifeline discount is determined by the amount of LIHEAP benefits available for distribution to those

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<sup>121\</sup>For example, as discussed in detail below, the LIHEAP Lifeline Rate can involve the "straight" Lifeline, the "weighted" Lifeline, or the "tiered" Lifeline.

households. Thus, the larger the amount of total LIHEAP benefits that are available for distribution, the larger the available discount. The cost of the discount can and should be calculated to fall within the level of the available LIHEAP budget.<sup>122\</sup>

The discount would be applied on a per unit of energy (e.g., CCF or KWH) basis. The application of the discount would be done by the utility and should appear as part of the actual bill rendered to the household. Rather than seeing a LIHEAP benefit check for a certain amount of money, in other words, the LIHEAP recipient would see a certain percentage discount appear on each of her monthly utility bills.

The discount would be funded by a lump sum payment to the utility at one time during the year.<sup>123\</sup> The lump sum payment is to be determined by calculating the sum of the LIHEAP payments made to LIHEAP recipients of the utility in the previous year.<sup>124\</sup>

The efficacy and fairness of a LIHEAP Lifeline should be measured by comparing (1) the home energy burdens, as measured by a percentage of income, under the LIHEAP Lifeline, to (2) the home energy burdens under the existing LIHEAP distribution method. The LIHEAP Lifeline has both good and bad aspects.

On the one hand, the primary limitation of the LIHEAP Lifeline rate is that it has no component that promotes regular monthly household payments. The LIHEAP benefit is provided as a percentage discount on the bill and is not made contingent upon payment of the prior month's bill by the low-income customer. To obtain such a regular monthly payment is one essential component of the PIPP.

On the other hand, the LIHEAP Lifeline has definite advantages. First, for combination utilities,<sup>125\</sup> the LIHEAP Lifeline does not require separate tracking

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<sup>122\</sup>To state this another way, the sum of the discounted rates should equal the LIHEAP budget.

<sup>123\</sup>The LIHEAP agency, however, may well decide that it does not wish to make only one lump sum payment. Semi-annual, quarterly or other periodic payments would be entirely appropriate within the context of such a proposal.

<sup>124\</sup>This would need to be adjusted each year for changes up or down in LIHEAP appropriations. Thus, if last year's payment was \$100 and LIHEAP benefits are cut by ten percent (10%), the benefit underlying the discount will be only \$90.

<sup>125\</sup>A "combination utility" is one providing both electric and natural gas service.

of household payments toward their separate energy services (electric and natural gas). The Lifeline is applied on a per unit of consumption basis for the affected fuel and is easily incorporated into the single balance billing. Second, the LIHEAP Lifeline ties the distribution of LIHEAP benefits directly into the level of energy consumption. In this fashion, the household still retains some sort of "price signal" for purposes of controlling wasteful energy consumption.

Three alternative means of providing a LIHEAP Lifeline are available: (1) the straight Lifeline; (2) the weighted Lifeline; and (3) the tiered Lifeline. The "straight" LIHEAP Lifeline Rate is a uniform percentage discount on home heating bills. The "weighted" LIHEAP Lifeline and "tiered" LIHEAP Lifeline present increasing levels of sophistication in the targeting of the Lifeline rate. The preferred method of providing LIHEAP benefits through the LIHEAP Lifeline is the "tiered" Lifeline. This alternative offers the most precise targeting of benefits.

While the LIHEAP Lifeline Rate has never been implemented in any jurisdiction (it was first conceived in September 1990 as a means of distributing limited LIHEAP funds in Southern states), it has been studied through computer models, using actual utility and LIHEAP agency data, in Jefferson County, Kentucky.<sup>126\</sup> The following discussion is based on that study.

**a. Straight LIHEAP Lifeline Rate:** The "straight" LIHEAP Lifeline Rate involves a uniform percentage discount applied to each unit of energy consumed by every LIHEAP recipient. The discount is paid for through LIHEAP benefits. The straight LIHEAP Lifeline Rate is designed to "spend" within the existing LIHEAP budget. The existing level of LIHEAP benefits in Jefferson County (roughly \$120 per household) can fund a uniform 30 percent discount on winter natural gas bills<sup>127\</sup> for all Jefferson County LIHEAP participants designating Louisville Gas and Electric Company (LG&E) as their source of primary heating fuel.<sup>128\</sup>

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<sup>126\</sup>See, *The Redistribution of Fuel Assistance in Jefferson County (Kentucky): Balancing Equity, Affordability, Simplicity* (September 1990). This Jefferson County report, however, is in draft form and has not been approved for final release. The purpose of citing it herein is simply to provide an overview of the operation of the alternatives, not to demonstrate the legitimacy of any particular figures quoted.

<sup>127\</sup>Unlike a PIPP, a winter LIHEAP Lifeline rate program is less expensive than an annual LIHEAP Lifeline rate program. In contrast, as discussed elsewhere, an annual PIPP is less expensive than a winter-only PIPP.

<sup>128\</sup>Note that Kentucky had insufficient LIHEAP benefits to fund a year round program. Moreover, Kentucky had insufficient benefits to fund a program for other than simply the primary heating



While not perfectly targeted, the straight LIHEAP Lifeline Rate offers distinct improvements to the LIHEAP population *vis a vis* existing LIHEAP distribution methods. On the positive side, using the straight Lifeline, 80 percent of all LIHEAP recipients would pay 15 percent or less of their winter income toward their winter heating bills.<sup>129\</sup> Ninety percent of LIHEAP recipients would pay 20 percent or less of their winter income toward their winter home heating bills. In contrast, on the negative side, even given the straight LIHEAP Lifeline, roughly one in ten of the Jefferson County LIHEAP recipients would pay more than 20 percent of their winter income toward winter home heating bills.

As heavy as the percentage of income burden may seem for the "top end" households under the straight LIHEAP Lifeline proposal, it nevertheless is a substantial improvement over the current LIHEAP system. The present LIHEAP benefit distribution in Jefferson County, for example, results in more than one in five recipients paying in excess of 20 percent of their income toward their winter home heating bills.

The increased efficacy of the LIHEAP program is obtained with the same LIHEAP budget currently in use.

**b. Weighted LIHEAP Lifeline Rate:** The "weighted" LIHEAP Lifeline Rate involves a two-step percentage discount applied to energy consumed by LIHEAP recipients. Given the Jefferson County, Kentucky LIHEAP budget, the weighted Lifeline first offers a 20 percent discount to households whose energy bills represent a burden of 0 - 20 percent of income. The weighted Lifeline next offers a 45 percent discount to households whose energy bills represent a burden of more than 20 percent of their income.<sup>130\</sup>

By "weighting" the Lifeline discounts, the LIHEAP Lifeline program seeks to redistribute the LIHEAP benefit. Because the discount for households with smaller burdens (as measured by bills as a percentage of income) are smaller, those households effectively "lose" some LIHEAP benefits. Those funds are

(. . .continued)  
source.

<sup>129\</sup>It is important to remember, however, that the household's electric bill would be in addition to this payment.

<sup>130\</sup>The discount is level for any given household. This is not a two-step process. A person with an energy burden of 40 percent, for example, receives a discount of 45 percent on the *entire* bill, not a 20 discount on 0 - 20 percent and a 45 discount on the remainder.

then redistributed so that larger discounts can be provided to households with larger burdens as a percentage of income.

Unquestionably, even with this weighting of benefits based on home energy burdens, there is no *guarantee* under the LIHEAP Lifeline program that household energy bills will in fact present only affordable burdens to the LIHEAP recipients. The only means by which that guarantee can be effected is by tying the energy bill directly to an income percentage deemed to be affordable. Nevertheless, within this constraint, the LIHEAP Lifeline program seeks to move toward that optimal system (of providing affordable energy burdens) within a constraint of administrative simplicity.

Indeed, the weighted LIHEAP Lifeline Rate noticeably improves the targeting of the LIHEAP Lifeline Rate. Given the same budget as previously used for LIHEAP in Jefferson County, nearly 90 percent of the LIHEAP recipients pay less than 15 percent of their income toward their winter home heating bills. Less than five percent must pay more than 20 percent. Again, this increased efficacy of the LIHEAP program is obtained with the same LIHEAP budget currently in use.<sup>131</sup>

**c. Tiered LIHEAP Lifeline Rate:** Finally, the "tiered" LIHEAP Lifeline Rate involves a three-step percentage discount applied to energy consumed by LIHEAP recipients. The tiered Lifeline first offers a 20 percent discount to households whose energy bills represent a burden of 10 - 20 percent of income.<sup>132</sup> The tiered Lifeline next offers a 40 percent discount to households whose energy bills represent a burden of 20 - 40 percent of their income.<sup>133</sup> The tiered Lifeline finally offers a 60 percent discount to households whose energy bills exceed 40 percent of their income.

Not surprisingly, the tiered Lifeline offers the most precisely targeted provision of LIHEAP Lifeline benefits. As a result, winter home heating bills are made more affordable for a larger portion of the population than under either the straight Lifeline or the weighted Lifeline. Under the tiered program, more than eight of ten households pay 15 percent or less of their income toward their winter

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<sup>131</sup>See, note **Error! Bookmark not defined.**, *supra*.

<sup>132</sup>No discount is provided to households whose energy burden falls below 10 percent of their income. Nevertheless, the Lifeline program proposes that each household found to be eligible for LIHEAP be provided a minimum benefit of \$40.

<sup>133</sup>As with the weighted Lifeline, the discount under the tiered program is level for any given household.

home heating bills; more than 95 percent pay 20 percent or less; 99 percent pay 25 percent or less.<sup>134)</sup> Finally, again, this increased efficacy of the LIHEAP program is obtained with the same LIHEAP budget currently in use.

**d. The Reason for the Targeting Difference:** The difference in energy burdens between the differing methods of implementing the LIHEAP Lifeline Rate comes in the lowest energy burden as measured by percentage of income. As the targeting of the LIHEAP Lifeline Rate is increasingly refined, households who pay a smaller portion of their incomes toward their winter home heating with which to begin lose some LIHEAP benefits (by receiving a smaller discount), which benefits are then redistributed (through the grant of a larger discount) to households who pay a greater percentage of their income toward their winter home heating.

In sum, under the LIHEAP Lifeline Rate, LIHEAP benefits are distributed through means of a per unit discount on a household's heating bill. Under two of the three means of implementation (the "weighted" Lifeline Rate and the "tiered" Lifeline Rate), the discount provided to households with a smaller energy burden (as measured by the bill as a percentage of income) is smaller than the discount provided to households with greater energy burdens. In this fashion, LIHEAP benefits are targeted to those households most in need as determined by the actual cost of energy. Through the process of distinguishing the level of discounts, LIHEAP benefits are redistributed away from households "less" in need to households who are "more" in need.<sup>135)</sup>

Again, the essence of the LIHEAP Lifeline Rate is that the distribution of LIHEAP benefits comes in the form of a per unit discount on a participant's energy bill. That discount is paid for with LIHEAP funds. The LIHEAP benefit is paid directly to the utility. The utility then provides the discounted bill. The sum of the discount should equal the LIHEAP benefit budget.

## **B. THE LIHEAP OUTLIER BUY-DOWN PROGRAM.**

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<sup>134)</sup>There is no magic to the 20/40/60 percentages. A state could choose to use a 10/40/70 percent or 15/40/65 percent discount. Moreover, the discount provided for heating and non-heating utilities can differ.

<sup>135)</sup>This statement is somewhat misleading in that all households who qualify for LIHEAP are poor and in need. While, *relative to each other*, some may be "less" in need and others "more" in need, the need of all participants cannot be questioned.

The premise of the LIHEAP Outlier Buy-Down Program is to address those households who, under a traditional LIHEAP scheme, fall outside "normal" consumption or income ranges. This program is "income-based" in that "outliers" are defined by the burden which an energy bill represents as a percentage of a household's income.<sup>136)</sup> The "Outlier Buydown Program" is not a "PIPP", however, in that it does not seek to ensure that households identically situated as to household size and income bear identical burdens as to home energy costs as a percentage of income. Neither does this program seek to ensure that a household will continue to receive utility service so long as a payment is made that is equal to a designated percentage of income.

The Buy-Down Program provides additional funds to households who devote in excess of a specified portion of their income to their home energy bills. The buy-down is a variable grant that will pay the difference between the actual energy bill of a client and a pre-determined percentage of income. The Buy-Down Program moves one step away from an income-based program in that it does not seek to tie LIHEAP assistance to any pre-determined percentage of income except in the cases at the extreme (the "outliers"). For those households, there is no assurance that the buy-down results in an affordable payment.

In order to create the fund for buy-down payments to be made, the Buy-Down Program involves an indirect redistribution of LIHEAP. Initial flat grants must be reduced so as to create a fund for the buy-down payments. For those households with the highest burdens as a percent of income, the dollars of the reduction, however, would subsequently be paid out in the form of a buy-down payment. For those households with the lowest burden as a percent of income, no additional money is provided and they have experienced the loss of the initial reduction in flat grants.

The amounts of the buy-down payments, and the percentages to which

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<sup>136)</sup>"Outliers" are considered to be those households which fall out of a range of household energy consumption or percentage of income which is consistent with the majority of other households receiving LIHEAP. The "outliers," in other words, represent the extremes, those households who, because of exceptionally high bills or exceptionally low incomes, bear an exceptionally large burden as a percent of income. The Outlier alternative is predicated upon the assumption that for many households, the current LIHEAP structure provides adequate coverage of home energy bills. The perceived inadequacies involve those households that, for whatever reason, do not have normal energy burdens, either because of excessively high bills or excessively low incomes. Supplemental payments are made to those households.

the state would buy-down the bills, depends entirely upon the state's LIHEAP budget. The Buy-Down Program has the advantage of being retrospective in nature. The percentage to which the state would commit to buy-down a bill, in other words, need not be set at the beginning of the program (although, certainly, a particular level should be assumed for budgeting purposes).

An example of how the Buy-Down Program might work for an individual household is as follows: A household has a winter income of \$4,000 (\$800 per month for five months). It has a winter heating bill of \$1,000 (\$200 per month for five months). The household receives an initial LIHEAP grant of \$200, thereby reducing its winter heating bill to \$800. The energy bill, even after receipt of the LIHEAP flat grant, is 20 percent of the household's income ( $800/4000=.20$ ). As a result, the Buy-Down Program will provide this household with an additional Buy-Down grant of \$200 to reduce the bill to no more than 15 percent of the household's income ( $[(800-200)/4000=.15]$ ). In short, the Buy-Down Program will pay a household's energy bill to the extent that the bill exceeds 15 percent of the household income even after receipt of the initial LIHEAP flat grant.

While the LIHEAP Outlier Program has never been implemented in any jurisdiction (it was first conceived in July 1989 as a means of distributing limited LIHEAP funds in Utah), it has been studied through computer models, using actual utility and LIHEAP agency data, in Salt Lake City, Utah.<sup>137</sup> The following discussion is based on that study.

Available LIHEAP funds in Utah<sup>138</sup> permit a buy-down of natural gas and electric bills to no more than fifteen percent of a household's income. The Outlier Buy-Down Program was affordable to the State of Utah for both the gas and the electric company at a 15 percent level. The projected cost of the gas Buy-Down Program was \$210,452 (as opposed to the \$209,369 cost of the traditional LIHEAP structure); the projected cost of the electric Buy-Down Program was \$132,563 (as opposed to the \$125,163 cost of the traditional LIHEAP).

The Buy-Down Program is, by definition, effective at reducing rates to the 15 percent income level. For Mountain Fuel Supply Company, while one-in-four households had bills in excess of 15 percent before the buy-down, none exceeded that level after the buy-down. For the electric company, 17 percent of all households had bills in excess of 15 percent of income before the buy-down

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<sup>137</sup>See, National Consumer Law Center, *Fuel Assistance Alternatives for Utah* (June 1989).

<sup>138</sup>At that time.

program, reduced to zero with the buy-down. While fifteen percent is not a particularly reasonable level of income to require of households, it was a significant improvement over the current LIHEAP structure in Utah.

The Buy-Down Program has several attributes that commend itself. The Buy-Down Program will reduce a household's winter energy bill as a percentage of income to no more than 15 percent of income for all LIHEAP recipients.<sup>\39\</sup> Moreover, the Buy-Down Program has an affordability control inherent within it. If, for whatever reasons, there were a shortage of funds, the Buy-Down level could be changed from 15 percent to (for example) 18 percent. Conversely, if the budget picture looked better than anticipated, the Buy-Down level could be set at less than 15 percent.

Finally, the Buy-Down Program is administratively simple. There is no need for the State to retain year-round staff. There is no ongoing burden on the State to monitor month-to-month utility bills as can be the case in a PIPP. The Buy-Down Program can be structured to involve a single additional payment, made upon application by the household, at the end of the winter heating season.

### **C. ACTUAL COST CRISIS PROGRAM.**

The third alternative proffered to introduce percentage of income concepts into the distribution of LIHEAP involves reform of the grant of LIHEAP Crisis (sometimes known as "emergency") benefits. This third alternative not only more closely ties the grant of benefits to actual cost, and thus to actual need, but it addresses several aspects of LIHEAP Crisis administration that should generate regulatory concerns as well.

The Crisis component of LIHEAP is specifically established by the Low-Income Home Energy Assistance Act of 1981.<sup>\40\</sup> The LIHEAP statute defines "crisis" to include "weather-related and supply shortage emergencies and other household energy-related emergencies."<sup>\41\</sup> The law requires states to reserve a "reasonable amount" of their LIHEAP appropriations "for energy crisis intervention." The statute does not require cash grants as a response to energy

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<sup>\39\</sup>The percentage of income level to which a household's energy burden can be reduced depends on the available LIHEAP budget. Since Massachusetts has significantly more LIHEAP benefit dollars on a per household basis than does Utah, the fifteen percent would likewise be substantially reduced in Massachusetts.

<sup>\40\</sup>42 U.S.C. §§ 8621, *et seq.* (1989).

<sup>\41\</sup>42 U.S.C. § 8622(1) (1989).

emergencies. Rather, the states, within 48 hours of a household application, must provide "some form of assistance to resolve the energy crisis."<sup>42\</sup>

State LIHEAP programs often impose eligibility requirements that are irrelevant to the existence or not of a household crisis. In many instances, the eligibility criteria simply do not measure (or demonstrate) what they purport to measure. Among the objectionable eligibility criteria is the prerequisite that households be facing a disconnection of service.<sup>43\</sup>

### 1. Shutoffs as Eligibility Criterion.

An actual or threatened disconnection of service does not adequately define a "crisis" situation facing a low-income household. Most often, to define "crisis" as being the presence of an imminent disconnection of service is likely to be *under*inclusive. Three situations are immediately apparent of households who should, but do not, receive Crisis grants under this criterion. Grants may be withheld until there is little hope of providing effective relief to households in crisis. Grants may be withheld from households who seek to resolve their payment troubles through payment plans that are destined to fail. Grants may be denied to households who face what is perceived as a hopeless payment situation and thus seek relief by moving rather than resolving their immediate payment troubles.

1. **Winter protections:** A household facing unaffordable heating bills during January and February, but who is protected from service disconnection by DPU-adopted winter shutoff protections, may end up with no Crisis benefits, but high and unpayable bills. By the time the spring disconnection is forthcoming, the arrears may well be unaffordable (Crisis benefits or not). It is axiomatic that, given high winter heating bills, the longer a household waits for Crisis assistance, the higher the ultimate arrears will be.<sup>44\</sup>

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<sup>42\</sup>42 U.S.C. § 8623(c)(1) (1989). The assistance must be provided within 18 hours if the household is in a "life-threatening situation." Id.

<sup>43\</sup>In FY 1988, 31 states required that households face a "disconnect threat" to be eligible for crisis assistance. An *additional* nine (9) states required that households actually have experienced a disconnection of service to receive crisis assistance. *Catalog of Fiscal Year 1988 Low Income Home Energy Assistance Program Characteristics*, at Table E-28, page 50, American Public Welfare Association (April 1988). (hereafter Catalog).

<sup>44\</sup>The impact of waiting before seeking relief from winter bills is discussed in: National Consumer Law Center, *An Evaluation of Low-Income Utility Protections in Maine: Payment Arrangements for Maine's Electric Utilities*, at 54 - 59 (July 1989). (hereafter Maine Low-Income Protections).

The household who has a winter energy bill that imposes an untenable burden as a percentage of income is faced with no means to avoid the impending crisis. That low-income household faces this dilemma: if the household enters into some type of payment plan early in the winter, it not only commits itself to pay its monthly installment payment to retire its arrears, it commits itself to pay the entire current winter monthly bill in full as each bill becomes due. Because of winter shutoff restrictions, however, Crisis grants are not available to help with these current bills. If, on the other hand, the household waits until the end of the winter before entering into a payment plan, it will have higher arrears and a shorter payback time with which to cope.<sup>45\</sup> Crisis grants, in these cases, may be insufficient to provide meaningful assistance. Either strategy, therefore, poses serious problems, since a failure to make any given payment in full will be considered a payment default and the spring shutoff is thus inevitable.<sup>46\</sup> As can be seen, in these situations, the "crisis" is not created by the spring disconnection but rather by the burden which the energy bill imposes on the household during the winter, shutoff or not.

**2. Payment plans:** Even in the spring, some households will enter into new payment plans through which their arrears are to be retired, thus postponing the threatened or actual disconnection of service. Unfortunately, many (if not most) low-income households who are faced with such payment plans face no-win situations. Households which have substantial bills owing on the date they enter into a payment arrangement may have great difficulty in making their required monthly payments. In a study of households entering into spring payment plans in Maine, for example, NCLC found that "for persons entering into plans in and after May, every combined monthly payment (i.e., current bill plus increment to retire arrears) will substantially exceed what would otherwise have been the highest winter current monthly bill."<sup>47\</sup> Moreover, in a recent natural gas rate case for Columbia Gas Company of Pennsylvania, NCLC found that 1,636 of the 3,907 households studied who had payment plans already had an acknowledged *negative ability to pay* even before entering into any payment plan.<sup>48\</sup>

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<sup>45\</sup>This assumes that the state requires arrears to be retired before the start of the next winter heating season.

<sup>46\</sup>In addition, one must be cognizant of the negative ability to pay of many, if not most, households living at or below 150 percent of Poverty. A "negative ability to pay" means that the household's expenses exceed its available income.

<sup>47\</sup>*Maine Low-Income Protections*, *supra* note **Error! Bookmark not defined.**, at 57.

<sup>48\</sup>Direct Testimony and Exhibits of Roger D. Colton, *Pennsylvania Public Utilities Commission v.*



Excessive monthly payments create problems not only relative to the payment of the required installments designed to retire the arrears, but also relative to the payment of current monthly bills as well. The higher the total combined monthly bills (arrears installments plus current bill) get for a particular customer, the less likely it is that that customer will make *any* payment toward that bill. Since a customer is no less disconnected for paying \$60 toward a \$100 bill than for paying nothing, no incentive exists to make the \$60 partial payment, even if that partial payment would be "affordable."

In addition to these payment plan problems, if a household enters into a payment plan, Crisis benefits will not be forthcoming at all since the disconnection of service has been avoided for the time-being. To avoid that result, the Crisis program which requires an actual or pending disconnection of service as an eligibility criterion forces the household to refuse to negotiate a payment plan, and walk to the edge of the precipice of a real or threatened disconnection, in order to qualify for the additional assistance.

**3. Forced mobility:** Finally, the presence of a pending disconnection of service does not help households who "give up and run" rather than try to resolve their payment troubles. That some households pursue this option is clear. The state of Pennsylvania, for example, requires utilities to report to the Public Utilities Commission's Bureau of Consumer Services (BCS) (pursuant to Commission Rule 56-100) whether households who have service disconnected during the immediately preceding 12 months are reconnected prior to the next heating season. The utilities in that state find that many households abandon their premises rather than seek to pay their outstanding bills. Columbia Gas, for example, told the BCS that from January 1, 1989 through November 30, 1989, 1,807 residential "heat related properties" had their service terminated for nonpayment. As of December 13, 1989, 897 of those "heat-related residential properties" had not been reconnected. In turn, 380 of those 897 (42 percent) were vacant premises, indicating the household had moved subsequent to the shutoff.<sup>49)</sup> Moreover, one community action agency caseworker in Vermont noted in 1989 hearings regarding low-income energy payment problems that she occasionally is forced to counsel clients to move from a particular utility service

(. . . continued)

*Columbia Gas of Pennsylvania*, Docket No. R-891468, filed on behalf of the Office of Consumer Advocate (April 1990).

<sup>49)</sup> Similar results were experienced in 1988. From January through November, 1988, 1,902 households had service disconnected for nonpayment. As of December 13, 1988, 1,041 of those households were not reconnected. In turn, 439 of those 1,041 (42 percent) represented vacant premises.

territory, since the household's arrears are irreconcilably high. In such circumstances, this caseworker testified, she tells clients that they must recognize they will never live in that community (i.e., utility service territory) again.<sup>150</sup>

**4. Summary:** In sum, the existence of an actual, or threatened, disconnection of service is not sufficient evidence of the presence of a crisis situation facing low-income families. Most frequently, this definition of "crisis" fails to capture all households who are, in fact, facing an energy crisis. Accordingly, LIHEAP Crisis grants are not being distributed to all those households who are eligible for that assistance.

## **2. Competing Public Policies.**

Legitimate concerns exist, as well, that defining "crisis" to include the requirement that households must be facing a pending disconnection of service interferes with other important public policy goals. In these programs, to be eligible for Crisis assistance, the household must have become far enough in arrears that the utility has turned to the disconnection of service as a collection device. While a pending disconnection of service is no doubt a "crisis" to the affected household, to condition the receipt of additional public aid on this criterion has substantial adverse side-effects. Not only does this requirement run directly opposite to much that the DPU, Massachusetts consumer advocates and Massachusetts utilities try to accomplish through anti-disconnection programs, but it often serves as a disincentive for public utilities to provide meaningful aid to their low-income customers through utility-sponsored efforts. This interference merits abandonment of this particular Crisis eligibility criterion.

Substantial effort is made on the part of many individuals and institutions to promote and obtain timely regular monthly payments toward utility bills. These payments serve four purposes.

oFirst and foremost, they ensure that utility service is paid for and the disconnection of service, or *threat* thereof, is avoided. Eliminating the threat of disconnection is an important goal, in addition to eliminating the actual disconnection of service. The issue affects the "quality of life" as much as anything, seeking to remove the

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<sup>150</sup>This forced mobility, in turn, creates the propensity for future crises as household resources are diverted to the payment of moving expenses rather than to month-to-month living expenses. See, National Consumer Law Center, *The Forced Mobility of Low-Income Households: The Indirect Impacts of Shutoffs on Utilities and Their Customers* (January 1991).

constant fear of the creditor seeking collection.

- oSecond, the ability of households to make regular monthly payments is socially empowering, permitting households to retain the basic dignity associated with full payment of the their household expenses.
- oThird, it keeps a household from becoming hopelessly behind. Households should not be placed in the desperate situation of having "no way out" of the black box of nonpayment.
- oFinally, timely payments results in cost savings to the utility and thus in lower rates for all utility customers. Avoided credit and collection expenses, working capital expenses and the like favorably affect low-income ratepayers along with all other customers.

Conditioning the grant of Crisis assistance on a household facing the imminent disconnection of service, therefore, runs contrary to much that consumer advocates and public utility commissions (as well as their staffs) seek to accomplish with low-income households. The contradictory messages are clear. On the one hand, low-income households are repeatedly told that they "must" pay their bills on a regular and timely basis. On the other hand, the LIHEAP Crisis program provides that if bills are *not* paid, additional financial assistance will be forthcoming. In this situation, non-compliance with payment responsibilities is rewarded and encouraged in several ways:

oFirst, households are encouraged to create, by nonpayment of bills, the situation whereby a disconnection will be threatened, thus triggering the availability of additional funds. A household's pursuit of these funds cannot be faulted; indeed, such pursuit represents sound money-management techniques.

oSecond, households are discouraged from paying what they are capable of paying. Instead, the household is provided an incentive to maximize their arrears so as to maximize the grant of Crisis benefits. If a household can afford to pay \$50 of a \$300 bill, but without such payment would be otherwise eligible for a \$300 Crisis grant, an affirmative incentive exists *not* to make that \$50 payment. A \$300 Crisis benefit cap, in other words, encourages a household to make sufficiently few payments so as not to "waste" the opportunity to receive maximum Crisis benefits. Rather than paying what is possible, the household is encouraged to accrue an arrears that is sufficiently high to exhaust the limit of Crisis benefit dollars.

oThird, households are discouraged from entering into beneficial payment plans. If a \$50 downpayment and an agreement to spread arrears over ten months will forestall a disconnection of service, it will also eliminate the household's eligibility to receive Crisis benefits. The household thus has an incentive to refuse to negotiate the payment plan.

oFinally, households are discouraged from entering into level budget billing plans. If a household has the option of scraping together \$50 each month to pay a budget billing obligation on its own, or facing a crisis-inducing high winter heating bill (which will trigger additional public assistance), the wise money management technique will be to refuse the budget billing and to seek the additional public aid.

Aside from these other major problems with LIHEAP Crisis administration, the current Crisis program requires a sophisticated financial analysis on the part of low-income households thus placing both the household's additional benefits, as well as its long-term ability to maintain utility service, in jeopardy. Most states place a cap on Crisis benefits.<sup>51\</sup> It is in the household's best interests to

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<sup>51\</sup>Only eleven (11) states report no maximum for their crisis benefit payments. *Catalog, supra* note **Error! Bookmark not defined.**, at Table E-4, page 56.

place itself in the situation where it will receive benefits up to the cap.<sup>1521</sup> In contrast, many states will provide Crisis benefits only if the payment of such assistance will result in the elimination of the crisis. Thus, a household must be far enough in debt to exhaust the maximum benefit without being so far in debt as to lose the possibility of assistance because the assistance will be insufficient to alleviate the crisis.

Finally, conditioning the receipt of Crisis assistance on the pendency of a disconnection of service serves as a disincentive for utilities to provide meaningful assistance to their low-income customers that might threaten the passthrough of this public aid. It is unreasonable to expect a utility to aggressively support rate breaks for the poor, for example, if in so doing, the utility will eliminate the potential to receive an income stream through the Crisis program. Moreover, it is unreasonable to expect a utility to offer special protections to forestall or prevent disconnections if, because of the definition of "crisis," it is only through a pending service disconnection that the customer will become eligible for additional public aid to ensure that the bill is ultimately paid.

### **3. The Actual Cost Based Crisis Alternative.**

As an alternative to this present Crisis administrative process, the Crisis grant can be tied to percentage of income concepts. Under this third alternative, a household could be deemed to be in a crisis situation when it receives a monthly utility bill that exceeds a pre-determined portion of its income. In that situation, the state should provide a Crisis benefit that will buy all or some portion of the particular month's utility bill down toward the designated portion of income.

An actual-cost based Crisis grant program could work in the following manner:

1. The state would provide emergency Crisis benefits whenever a household's winter energy bill exceeds a designated portion of income. A household which experiences this excess billing will be *deemed* to be facing a crisis situation by definition.
2. A household facing a crisis situation would be provided a supplemental Crisis grant that equals the excess of the bill over the designated portion

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<sup>1521</sup> Thus, if a household has a \$50 ability-to-pay and a \$300 bill, and if the state has a \$300 Crisis cap, a household payment equal to its ability to pay will, in effect, only deny it the additional \$50 in public assistance.

of income up to a predetermined maximum. The predetermined maximum would be set on a sliding scale which varies as a function of the extent to which the household bill exceeds the allowed percent of income. A household who receives a bill equal to thirty (30) percent of household income, in other words, would have a higher maximum than the household which receives a bill equal to twenty (20) percent of income.

3. The utility bill subject to an emergency Crisis grant is a monthly utility bill. The household income would be the income determined for purposes of establishing LIHEAP eligibility *pro rated* on a monthly basis. A Crisis payment for any month in which the bill does not exceed the designated portion of income would be equal to zero dollars.
4. A household could seek multiple emergency Crisis grants in any one heating season. The total household Crisis payment for the season, however, may not exceed the predetermined maximum.<sup>53\</sup> The maximum, in other words, represents a cap both on the benefits that may be received in any month as well as on the benefits that may be received in any given heating season.

Through this mechanism, the state, the utility and the household would gain several benefits:

1. States would more likely target their emergency Crisis benefits to those households most in need. Crisis grants would be calculated using actual energy costs as a basis for the grant.
2. The LIHEAP Crisis program would no longer reward non-payment. A household gains no benefits by "generating" a disconnect situation. Neither is a household provided incentives to seek to increase its emergency Crisis grant by increasing its outstanding arrears through nonpayment.
3. LIHEAP Crisis programs would gain a degree of fundamental fairness. This proposal recognizes the crisis inherent in having energy bills exceed a designated level of income. This Crisis proposal does not distinguish between those households who forego food,

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<sup>53\</sup>The level of the maximum could be set based strictly on budgetary considerations.

clothing or medical attention in order to retain sufficient funds to pay utility bills and those households who buy food but who don't pay their utility bills.

4. LIHEAP Crisis programs would incorporate an early identification element. In this program, a household would not face the need to permit itself to become sufficiently far in arrears to force the utility to resort to the disconnection of service as a collection device. Rather than seeking to extricate a household from its crisis situation, the emergency grant program seeks to incorporate an early identification of developing crisis situations.

5. LIHEAP Crisis programs can eliminate a large degree of staff-intensiveness. There would be no need for individualized inquiry into changes in circumstances. The calculation of an "emergency" situation can be largely automated.

6. LIHEAP Crisis programs would still retain budget control over its benefit levels. The Crisis program would not become another entitlement payment. Rather, Crisis payments would be made up to some designated maximum. That maximum may or may not be equal to the entire excess of the bill over the designated portion of income.

Since the Crisis grant would be made a function of the bill as a percent of income in any given month (and not upon the arrears), the entire collection process involved with the disconnection and reconnection of service should be avoidable. The utility is not forced to engage in the collection process as an artificial prelude to the grant of additional public assistance.<sup>54\</sup> Indeed, one primary purpose of the Crisis proposal contained in this document is to identify potential payment troubles early and to provide those households with assistance to avoid falling into the abyss of utility credit and collection measures.

## **D. SUMMARY AND DISCUSSION.**

The PIPP proposed as a demonstration project for Massachusetts Electric Company can succeed in limiting energy payments required of low-income households to some reasonable percentage of household income. In seeking to accomplish this result, the PIPP proposal can offer more consumer protection than do traditional shutoff protections such as a winter shutoff moratorium,

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<sup>54\</sup> Even if the household receives a shutoff notice, the notice is but a minuscule portion of the total cost of collection.

required deferred payment plans, and the like. Through the PIPP, state policymakers can address the fundamental question of the "affordability" of energy.

Moreover, the PIPP is intended to do more than simply provide benefits to the low-income ratepayer. If properly designed, the program can additionally create a regulatory scheme within which customer payment responsibilities are strongly encouraged. This is done by requiring an eligible household to make regular monthly payments at a specified level in order to participate in the PIPP. This program structure seeks to recognize the benefit to utilities of regular payment plans entered into by delinquent customers. The offer of payment plans, particularly to low-income delinquent customers, has been incorporated into the customer service regulations of nearly every state public utility commission, including the DPU.

Finally, in addition to the potential benefits that a PIPP effort has regarding the collection or prevention of arrearages by low-income households, a PIPP can help, as well, to target weatherization and housing rehabilitation funds to households who are in particular need of assistance. The provision of PIPP benefits is necessarily tied to the level of household energy usage. As a result, the PIPP will identify households whose energy usage results in bills that significantly exceed the assigned percentage of income contribution. The Commonwealth, as well as Massachusetts Electric, can thus choose to target priority energy conservation to these high usage households.

This targeting of households for the provision of housing assistance is beneficial on a number of different levels. Targeting helps: (a) the low-income households in making their energy bills more manageable; (b) the utility and its ratepayers in bringing about a decline in revenues subject to the risk of non-collection, (c) the state in lowering the cost of the energy assistance program, and (d) society in general by eliminating the inefficient use of a scarce resource.



## PART V: ARREARAGE FORGIVENESS

Arrearage forgiveness is an essential component of any redistribution of LIHEAP benefits. It makes little sense to rationalize the system of accounting for current bills if low-income households face unpayable burdens for pre-program arrears. An arrearage forgiveness program helps provide a program participant with a clean slate. And, under the newly formulated LIHEAP program, since households should not incur new arrears, the utility will not face an ongoing exposure to unpaid debt. The State and the utilities can, in other words, expect a synergism to exist between the redistribution of LIHEAP and an arrearage forgiveness program. While the LIHEAP program will ensure that current bills are accounted for, the arrearage forgiveness program will account for pre-program arrears.

Under an arrearage forgiveness program, the pre-program arrears for participating households will be reduced over a period of time. In a 36-month program, for example, for every payment made by a household toward its current energy bill, the utility will reduce the household's pre-program arrears by 1/36th.<sup>155</sup> At the end of the 36 month period, therefore, a household will be "even," owing no current bill and having had the entire amount of pre-program arrears forgiven.

### A. THE POLICY JUSTIFICATION.

In approving an arrearage forgiveness program associated with the Rhode Island Percentage of Income Payment Plan (PIPP), the Rhode Island Public Utilities Commission noted the need for both elements of the program: the percentage of income payment element to take care of current bills and the arrearage forgiveness element to take care of pre-program debts.<sup>156</sup> These two program components, the Rhode Island Commission said, must be viewed "as a unified design and strategy."<sup>157</sup> What results, the Commission said, "should be

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<sup>155</sup>A household must successfully complete the first six months of the PIPP before obtaining any forgiveness, however. At that time, she receives her first six months of forgiveness and a *pro rata* portion thereafter.

<sup>156</sup>*In Re. Percentage of Income Pilot Program Petition, Filed by the Coalition for Consumer Justice*, Docket No 1725, Rhode Island Public Utilities Commission.

<sup>157</sup>*In Re. Percentage of Income Pilot Program Petition, Filed by the Coalition for Consumer Justice*, Docket No 1725, Decision and Order, at 7, Rhode Island Public Utilities Commission (January 1987).

synergism predicated upon the ability to erase previously incurred bills with current consumption patterns.<sup>158\</sup>

In fact, there is little chance that households in arrears will be able to successfully complete any payment plan designed to retire those arrears. Households having substantial arrears are in significantly "worse" shape than households without arrears. Those households in debt tend to have both less income and higher annual bills. The average annual energy burden they bear as a percentage of income is greater as well.

The National Consumer Law Center has studied arrearage forgiveness programs in a number of states.<sup>159\</sup> Households simply have insufficient funds to absorb current bills plus arrears into their budgets, NCLC has found. The impact of "requiring" households to retire arrears in addition to paying current bills is to push total bills into unaffordable ranges. Even during the least expensive non-heating months, arrears push monthly household payments into the range of 15 - 20 percent of income. During the more expensive heating months, the average payment required to pay current bills plus arrears would reach an impossible 25 - 35 percent of income.<sup>160\</sup>

It is because of the futility of making such demands that an arrearage forgiveness program is proffered. NCLC recently undertook a study of deferred payment plans in Pennsylvania as a part of its report presented to the Pennsylvania Public Utilities Commission on behalf of the state Office of Consumer Advocate.<sup>161\</sup> What NCLC found was that payment plans in Pennsylvania are simply not working. Consider the results from the following Pennsylvania utilities:

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<sup>158\</sup>Id., at 7.

<sup>159\</sup>See, *Controlling Uncollectible Accounts In Pennsylvania: A Blueprint for Action* (December 1990); *Fuel Assistance Alternatives for Utah* (June 1989); *Low-Income Utility Protections in Maine: An Evaluation of Low-Income Utility Protections in Maine: Fuel Assistance and Family Crisis Benefits*, Vol. III (July 1988); *An Evaluation of the Warwick (Rhode Island) Percentage of Income Payment Plan* (January 1988).

<sup>160\</sup>See, *In Re. Request of Philadelphia Gas Works for Increase in Base Natural Gas Rates*, Direct Testimony and Exhibits of Roger D. Colton, filed on behalf of Philadelphia Public Advocate (November 1990).

<sup>161\</sup>National Consumer Law Center, *Controlling Uncollectible Accounts In Pennsylvania: A Blueprint for Action*, at 69 - 76 (December 1990).

**a. Columbia Gas:** The Budget Plus payment process has largely failed Columbia Gas as a means to address the problems of low-income households. An examination of Budget Plus households for Columbia Gas found that energy bills that were unaffordable for households before those households entered into a Budget Plus plan remained unaffordable under Budget Plus. This can be seen in several ways. For example, the success of Budget Plus can be measured by the number of Plans that are canceled because of non-payment. In addition, the success can be measured by the extent to which Budget Plus households can stay current on their Plans. The observations below are based on 1989 data provided in the payment plan reports filed by Columbia Gas with BCS. Data is taken from 1989 since that is the only complete year for which data is available.

Budget Plus payments are simply not being made by Columbia Gas customers. In calendar year 1989, Columbia Gas had an average of 13,390 heating participants in its Budget Plus payment plans each month. On average, 4,404 of those accounts (33 percent) were "delinquent." Similarly, Columbia Gas had on average \$8.2 million subject to Budget Plus agreements each month. Of that money, \$3.5 million (43 percent) was delinquent.

These delinquent accounts do not represent "short-term delinquencies." There are long-term failures with Budget Plus as well. In 1989, roughly 18 percent of the Budget Plus Plans (2,409 of 13,398) were "canceled" each month. During the last five months of 1989 (August - December), however, the average was 40 percent cancellation per month (4,267 of 10,683) (as opposed to an average of seven percent [1,082 of 15,323] for January through July). On average, 22 percent of the dollars subject to Budget Plus plans (\$1.8 million of \$8.2 million) were subject to canceled Budget Plus plans each month in 1989. For August through December, the canceled dollars averaged 46 percent (\$2.9 million of \$6.4 million) while the canceled dollars averaged only 10 percent (\$0.93 million of \$9.5 million) in January through July. The fact that a substantial percentage of Budget Plus plans have recent start dates, as discussed above, again lends credence to the notion that participating households cannot maintain these plans and, as a result, enter into consecutive Budget Plus agreements.

**b. Other Budget Plus Programs:** The Columbia Gas experience is by no

means unique. Indeed, it is the norm for Budget Plus payment plans to fail rather than to succeed. In response to Commission inquiry, the Pennsylvania utilities reported the success rate of their Budget Plus plans. Those results are set forth in the Table below:

**PERCENTAGE OF BUDGET PLUS CUSTOMERS  
WHO MAINTAINED THEIR PAYMENT ARRANGEMENT**

<b>COMPANY</b>	<b>SUCCESS RATE (%) 1987</b>	<b>SUCCESS RATE (%) 1988</b>	<b>SUCCESS RATE (%) 1989</b>
<b>UGI</b>	33.3%	32.9%	36.6%
<b>PECO</b> <sup>62)</sup>	11.4%	11.5%	28.3%
<b>NATIONAL FUEL GAS</b>	N/A	N/A	N/A
<b>PENN POWER</b>	N/A	N/A	N/A
<b>MET EDISON</b> <sup>63)</sup>	31.5%	63.9%	61.3%
<b>PENN P &amp; L</b>	N/A	See n. <b>Error! Bookmark not defined.</b>	<sup>64)</sup>
<b>PENELEC</b>	29.3%	26.3%	25.9%

**c. Philadelphia Gas Works:** The extended payment plan historically offered by the Philadelphia Gas Works is called its "5 and 2" plan. Through

<sup>62)</sup>PECO reported that it "does not identify the individual customers who successfully maintain payment arrangements. However, we do track the overall success rate of special payment arrangements."

<sup>63)</sup>Metropolitan Edison does not separately track the success rate of Budget Plus customers from Current Plus customers. Moreover, its use of the Budget Plus process is quite limited, involving 615 accounts in 1987, 360 accounts in 1988, and 430 accounts in 1989.

<sup>64)</sup>PP&L reported that it "does not maintain separate statistics for the budget billing 'plus' method. The Company stated "the following statistics are representative of the total population. During 1989, 110 plans were paid in full; four were canceled or defaulted. During 1988, 103 plans were paid in full; 15 were canceled or defaulted.

this payment plan process, a household is required to make a downpayment of five percent of the arrears. The household is then required to make payments equal to two percent of the arrears for 25 months, thus retiring one-half (50 percent) of the arrears. The remainder is forgiven. At all times, the household is responsible for paying its current bill. From October 1985 through March 2, 1989, 73 percent of all 5 and 2 plans had been broken (i.e., had sufficient numbers of nonpayment that they had been abrogated). Indeed, the results of the 5 and 2 program were not at all encouraging. In 1988, alone, the last year for which complete data is available, 58 percent of the 5 and 2 plans entered into were broken; 75 percent were either broken or defaulted. Overall, from October 1985 through March, 1989, PGW's 5 and 2 customer made fewer than six out of every 25 required payments.

In short, the availability of a deferred payment plan does not ensure that households in arrears will be able to extricate themselves from payment troubles. Indeed, data from other studies supports the conclusion that some households become hopelessly behind and need an arrearage forgiveness provision to make it likely, at all, that they will ever become current on their bills.

## **B. CUSTOMER PAYMENTS TOWARD ARREARS.**

Despite the importance of the arrearage forgiveness component of a program to address the plight of low-income households, it is important, as well, for the program not to overreach its purpose. The intent of the arrearage forgiveness provision is to allow low-income households who have fallen "hopelessly behind" a fresh start. If a household, in contrast, is "only" one or two months behind, those are not the arrears sought to be addressed by this type of provision.<sup>65)</sup>

It is reasonable to have households make some contribution toward their pre-program arrears. The goal is to have households pay what they can. It is important, however, not to attempt too much in this regard. If a utility seeks to collect more than what is affordable, it risks losing not only the unaffordable portion of the household contribution, but the affordable portion as well. From the household's perspective, if no benefit arises from making partial payments, no partial payments will be made.

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<sup>65)</sup>This assumes that these months do not represent winter heating bills.

A household contribution of \$3 per month for 36 months will significantly reduce a utility's exposure to forgivable arrears. NCLC has found in a number of studies that such a provision will tend to reduce the forgivable arrears by any where from 40 to 60 percent.<sup>166</sup> In Vermont, for example, the household payment reduced the total forgivable arrears exposure by more than fifty percent.<sup>167</sup> The Vermont study found that the household would result in the payment of the *entire* pre-program arrears for a substantial number of accounts, ranging from a low of 42 percent of all delinquent accounts for Vermont Gas to a high of 59 percent for Green Mountain Power. Similar results have been found in Rhode Island,<sup>168</sup> Utah,<sup>169</sup> Maine<sup>170</sup> and Kentucky.<sup>171</sup>

Each dollar of additional customer contribution, however, yields smaller returns. An increase from \$3 per month to \$4 per month, for example, lowers the total exposure of a utility less than a move from \$2 to \$3.<sup>172</sup> The increase in the required customer payment, in other words, results in substantially increased risk that no payment will be received while yielding only marginally increased benefits.

Given the marginal increases in benefits to the utility from the increase to a household contribution of \$4 per month, and the danger of risking the overall affordability of the program, monthly household contributions to pre-program

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<sup>166</sup>All this means is that most households have arrears less than \$108.

<sup>167</sup>Direct Testimony and Exhibits of Roger D. Colton, on behalf of the Vermont Department of Public Service, *In Re. Investigation and Implementation of Low-Income Energy Programs*, Docket 5308 (October 1989).

<sup>168</sup>National Consumer Law Center, *An Evaluation of the Warwick (Rhode Island) Percentage of Income Payment Plan* (January 1988).

<sup>169</sup>National Consumer Law Center, *Fuel Assistance Alternatives for Utah* (June 1989).

<sup>170</sup>National Consumer Law Center, *Low-Income Utility Protections in Maine: An Evaluation of Low-Income Utility Protections in Maine: Fuel Assistance and Family Crisis Benefits*, Vol. III (July 1988).

<sup>171</sup>National Consumer Law Center, *The Percentage of Income Payment Plan in Jefferson County, Kentucky: One Alternative to Distributing LIHEAP Benefits* (March 1991).

<sup>172</sup>This result is constant over the range of arrears. Thus, a move from \$4 to \$5 would result in a smaller reduction in arrears than a move from \$3 to \$4.

arrears should not be pushed to that level. The benefit of a \$2 per month or a \$3 per month contribution, given the marginal reduction in exposure to write-offs, is closer and is a decision to be made at the local level.

Finally, it is important to structure an arrearage forgiveness provision properly so as to encourage the retirement of arrears and not *vice versa*. Accordingly, the arrears subject to forgiveness should be the arrears that appear on a bill on a date certain. Historically, this has been the arrears appearing on the September bill. In this way, a household does not have the incentive to delay entering the PIPP until spring, taking advantage of winter shutoff protections in the meantime, so as to make the winter bills subject to the arrearage forgiveness provision.

**C. WHO BEARS THE COST OF FORGIVEN ARREARS.**

Having established all of the above, the fundamental issue of who bears the cost of the forgiven arrears must be addressed. The net cost of the arrearage forgiveness provision should be included in rates to be charged to all ratepayers. As used for other utilities participating in an arrearage forgiveness program, the "net costs" are to be determined by the following formula:

$$NC = FA - (OBD + AND + CS + WCS + LTV + O)$$

where:

NC=	net costs of arrearage forgiveness
FA=	amounts of arrears to be forgiven
OBD=	amount of arrears forgiven that would otherwise have become bad debt in any event
AND=	bad debt avoided by having households participate in the program
CS=	savings in collection activities
WCS=	savings in working capital costs as revenue lag days are decreased
LTV=	savings from elimination of lost time value of money
O=	Other factors deemed relevant by the utilities, the Commission or other interested parties.

The evaluation efforts discussed below<sup>173\</sup> are designed to provide the quantitative data necessary to complete this calculation. Through that evaluation, Massachusetts Electric can precisely determine the extent to which, if at all, the PIPP results in quantifiable benefits to all ratepayers.

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<sup>173\</sup> See, pages 53 - 56, *infra*.



## **PART VI: INCOME-BASED ASSISTANCE AND CONSUMPTION PATTERNS.**

Some analysts rely upon blackboard economic theory to oppose income-based programs. They argue that such programs are contrary to public policy promoting energy conservation. These analysts assert that implementation of such a program will inexorably lead to the waste of energy. They reason that programs that tie energy bills to a percentage of income reduce the marginal cost of energy to zero for all costs above the income-based payment, thus eliminating any incentives for households to ration their energy consumption.

This reliance on blackboard economics is misplaced for a variety of reasons and the conclusions reached are demonstrably in error.

### **A. THE EMPIRICAL RESULTS.**

The conclusion that income-based programs will lead to the indiscriminate waste of energy is not supported by the experience in states which have implemented such projects. A number of those states have expressly considered the consumption impacts of income-based programs in after-the-fact evaluations. The evaluations of programs in Rhode Island, Minnesota, Ohio, Montana, Illinois and Philadelphia are discussed below.

#### **Rhode Island**

The Rhode Island Percentage of Income Payment Plan (PIPP) involves two basic components: (1) a copayment mechanism; and (2) an arrearage forgiveness mechanism. The first component is oriented toward current bills. Under the program, so long as a participant makes regular monthly payments toward its home energy bill based on a predetermined and reasonable percentage of its income, LIHEAP will pay the difference between the household payment and the actual bill. The second component is oriented toward pre-program arrears. So long as the participant continues to make complete and timely payments toward its current bills, any pre-program arrears it might have had will be forgiven over a three year period.

An evaluation of natural gas consumption under the Rhode Island program concluded that the "presence of PIPP does not appear to be a factor affecting the energy consumption by PIPP participants."<sup>74</sup> The analysis was

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<sup>74</sup>National Consumer Law Center, *Evaluation of Warwick (Rhode Island) Percentage of Income Payment Plan (PIPP) Demonstration Project* (1988).

limited to households with 12 months of consumption.

The Rhode Island evaluation looked at natural gas consumption on a household-by-household basis.<sup>175\</sup> Over 60 percent of the Rhode Island PIPP participants fell within a narrow range of variation from their pre-PIPP consumption under the new income-based program. These households experienced from a ten percent increase (34 percent of participants) to a ten percent decrease (27 percent of participants) in natural gas consumption during the 1986 - 1987 Program Year.<sup>176\</sup> Some households, however, did increase their consumption under the Rhode Island PIPP, with eleven percent increasing their consumption by more than 20 percent. However, a roughly equal number, eight percent, experienced a consumption decrease of more than 20 percent.

No systematic increase in household consumption occurred *as a result of* the Rhode Island PIPP. The conclusion to be drawn from the Rhode Island data is that, whatever factors influenced consumption decisions by low-income households, the presence or absence of PIPP was not one. Household energy consumption under a PIPP was just as likely to go down as up.

### Minnesota

During Fiscal Year 1985, two community action agencies in Minnesota operated two different programs for the distribution of federal LIHEAP benefits. At the core of the programs was the premise that a low-income household should be asked to pay only a reasonable percentage of its income for its home energy or heating fuel. The LIHEAP program would pay the difference between the household income-based payments and the actual bills of program participants.

Results similar to Rhode Island were found in an evaluation of household total energy consumption under the Minnesota Fair Share programs.<sup>177\</sup> Of the clients served in Anoka County, 57 percent of all participating households fell within the range of a ten percent increase to a ten percent decrease (37 percent increased consumption; 20 percent decreased). An equal number experienced "significant" increases as decreases, with ten percent using at least 25 percent more and eleven percent using at least 25 percent less.

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<sup>175\</sup>This is to be contrasted to approaches like Ohio and Montana where consumption was examined on an aggregate class basis.

<sup>176\</sup>The 1986 - 1987 Program Year was compared to the 1985 -1986 Program Year. The Program Year ran from October 1 through September 30.

<sup>177\</sup>National Consumer Law Center, *Evaluation of Minnesota Fair Share Pilot Programs* (1986).

The second Minnesota pilot program involved the BICAP community action agency. With BICAP, the data was almost identical. For participating households, 67 percent of all households fell within the plus or minus ten percent range (21 percent increased; 46 percent decreased). Similarly, while eight percent of participating households increased consumption by at least 25 percent, nine percent decreased their consumption by at least 25 percent. Electric and natural consumption was aggregated in the analysis.

The similarity in results between the two programs in Minnesota are significant in several respects. Primarily, though, the Anoka program design included a benefit cap for individual households along with a positive conservation incentive that allowed households to share in any energy savings. If households conserved energy, they were permitted to pocket part of the savings. Moreover, there was an absolute cap placed on consumption, over which LIHEAP would not pay. In contrast, the BICAP program had an open-ended design; all consumption above the household income-based payments was covered by public assistance benefits. The program involved neither incentives for conservation nor penalties for waste. Despite this difference in conservation designs, results for the two programs were virtually identical.

## Ohio

The Ohio Percentage of Income Plan (PIP) was the first income-based program in the nation. Under the Ohio PIP, households are required to make payments equal to a predetermined portion of their income. So long as such payments are made, while the household remains "responsible" for the shortfall, the utility may not use the disconnection of service as a collection device.<sup>178\</sup> The Ohio PIP does not involve any redistribution of LIHEAP benefits. Indeed, participating households often do not even apply for and receive LIHEAP assistance.

In an evaluation of the Ohio program,<sup>179\</sup> significant differences were found in consumption impacts as between natural gas and electric PIP versus non-PIP

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<sup>178\</sup>The utility may, however, use any other lawful collection mechanism.

<sup>179\</sup>Tractell, Inc., *A Study of the Results of the Commission's Procedural Determination of Customer Payment Options Pursuant to the Investigation into the Long-Term Solutions Concerning Disconnect or Gas and Electric Service in Winter Emergencies* (1985).

customers as well as between customers of different utilities.<sup>180\</sup> The Ohio PIP participant was found to have consumed significantly more natural gas than the non-PIP customer. While the magnitude of the difference varied widely among the various utility companies, the direction of the difference was uniform. In its evaluation, however, Ohio looked only at aggregate data; the consumption for the PIP class as a whole, it found, exceeded the consumption for the non-PIP class as a whole. Ohio found further that the difference between the two populations could be attributed to a "relatively small customer population." A small number of extremely high use customers, in other words, was found to have skewed the aggregate analysis.

Moreover, the Ohio conclusion as to aggregate use by PIP customers did not address the *change* in consumption due to the implementation of the PIP. Ohio found that patterns of gas consumption by PIP customers remained reasonably consistent during the two years before, and the two years after, the PIP implementation. The same differences that existed *after* the PIP had been implemented in Ohio, the state found, had existed *prior* to the time PIP had been implemented. No explanation for this phenomenon was proffered.

According to the Ohio study, there were "minimal" net differences in electrical usage for PIP and non-PIP customers in Ohio when summed over all utilities.<sup>181\</sup> Ohio noted that there were "opposite, yet wide, differences" as between companies. The Ohio analysis, for example, looked at consumption by year, by season and by month. Ohio found that all PIP minus non-PIP differences were positive for Cincinnati Gas and Electric; all differences were negative for Ohio Edison; and the difference pattern for Dayton Power and Light varied with consumption month. Ohio did not address why there might be increases in gas consumption but no changes in electric consumption.

## Montana

The Montana PIP was modelled closely on the Rhode Island PIPP. Montana implemented a LIHEAP-based program. Bills beyond the income-based payments by households were paid by federal fuel assistance benefits. Montana represents an interesting situation in that the participating utility was Montana Power Company, a combination utility. A combination utility

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<sup>180\</sup>Ohio placed significant restrictions on the validity of its analysis. The consultant, for example, expressly stated that the sample it studied was insufficient to draw sound conclusions without further study.

<sup>181\</sup>Again, aggregate analysis was used.

provides *both* the natural gas and electric service to customers. In addition, Montana Power uses a unitary billing process, whereby the natural gas and electric bills are aggregated into one "amount due" on the monthly bill.

While the Montana PIP was evaluated for impacts of the PIP on participating client consumption, as with Ohio, due to data collection problems, the consultant warned that "a comprehensive analysis of the energy consumption data and correlation to the PIP files\* \* \*was not possible."<sup>82\</sup> Nevertheless, the study looked at both electric and natural gas consumption.<sup>83\</sup>

The Montana electric analysis looked at 13 accounts which had the same customer in the year before the PIP and the year of the PIP.<sup>84\</sup> The study used a methodology similar to Ohio in that it aggregated consumption for the entire sample PIP population and compared that aggregate figure to the aggregate figure for the pre-PIP year.<sup>85\</sup> The study concluded that the total PIP population increased its electric use by 12 percent from the 1986-87 program year to the 1987-88 program year. The January consumption, in particular, the report noted for these 13 accounts, increased by 18 percent as between those two time periods.

The study concluded that "it is reasonable to conclude from these results that annual electric use increased by 11-12 percent under essentially normalized weather conditions."<sup>86\</sup> \* \* \*It is doubtful whether additional large systematic increases would occur in subsequent years."

The Montana study looked, also, at natural gas consumption. Average annual gas consumption for PIP participants increased by only one percent, the

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<sup>82\</sup>Schneider, *Evaluation of Montana's Ravalli County Percentage of Income Payment Plan (PIPP) Pilot Project* (1989).

<sup>83\</sup>The Montana evaluation reported that it had insufficient data to reach statistically significant conclusions. Its conclusions, the report said, were "qualitative" in nature.

<sup>84\</sup>Montana, too, limited the analysis to households with 12 full months of data.

<sup>85\</sup>Unlike Ohio, the Montana evaluation did not comment whether a limited number of customers with abnormal consumption characteristics skewed the aggregate results.

<sup>86\</sup>While weather conditions were not normalized, the consultant found that the number of degree days was virtually identical. Based upon that observation, without considering the patterns or stretches of cold vs. warm weather, the consultant concluded that weather in the two years was effectively the same.

study found. Similarly, January consumption increased by only four percent from 1986-87 to 1987-88. The consultant concluded that "it does not appear that there was a significant increase in gas use between 1986-87 (LIHEAP) and 1987-88 (PIP) on an essentially weather-normalized basis for the same accounts (addresses)."

## Illinois

In 1985, Illinois implemented a utility-based Percentage of Income Plan (PIP) largely based on the Ohio model: the Illinois Residential Affordable Payment Program (IRAPP). Participation in IRAPP is limited to individuals who are otherwise eligible for the Illinois LIHEAP program. Under IRAPP, a household is required to make an income-based payment during the winter season (December 1 through April 30). For each month during the summer season (May 1 through November 30), participants must pay either the percentage of income payment or the current month's bill, whichever is greater.

Illinois implemented a strict consumption cap. In the absence of medical excuse, participants are required to pay for any monthly heating season consumption that exceeds an officially designated average residential use. Responsibility for above-average usage becomes due and payable only when a household leaves the program.

Illinois found that in five of seven utilities measured, participants increased their winter gas consumption.<sup>87</sup> (Griffith 1989). For only three of these companies was the consumption increase statistically significant. Moreover, in all of the utilities providing natural gas, there was increased summer consumption. However, for only one was the difference statistically significant.

The impact of IRAPP on electricity consumption varied from one utility service area to another. Winter electricity consumption increased for three of the six utilities. For each of these utilities, the difference was statistically significant. For the remaining three utilities, winter electricity consumption by participants decreased. For each of these utilities, however, the difference was not statistically significant. In contrast, summer electricity consumption increased in three utility service areas and decreased in two utility service areas. The difference in each instance was not statistically significant.

## Philadelphia Electric Company

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<sup>87</sup>Griffith, *IRAPP: Preliminary Evaluation of the Illinois Residential Affordable Payment Program* (1985).

The Philadelphia Electric Company has implemented an income-based program aimed at its payment troubled customers. The PECO Customer Assistance Program (CAP) provides that income-based rates are available under two sets of circumstances. First, households who live at or below 75 percent of the poverty level are conclusively presumed to be incapable of paying their full electric bill. Second, households who are above 75 percent of poverty, but below 150 percent of poverty, have the right to demonstrate their inability to pay. In both instances, however, the customer must have experienced prior payment difficulties as manifested by nonpayment of bills.<sup>188</sup> Under PECO's CAP, households in the first category must pay three percent of their income to PECO if they use electricity for non-heating; they must pay eight percent if they use electricity for heating. In contrast, households in the second category must make either the percentage of income payments, or what PECO finds to be their available discretionary income, whichever is greater. PECO reports that roughly two of three households make percentage of income payments.

In addition to the payment plan, customers who participate in the PECO CAP receive extensive counselling on energy saving measures. Low-cost/no-cost conservation measures are also provided for installation in the homes of such participating households. As a result, PECO's program evaluation found that, despite the limitations on payment responsibility, because of these aggressive conservation efforts, households participating in the CAP actually experienced an aggregate decrease in consumption of nearly seven percent.<sup>189</sup>

## **B. PRICE SIGNALS AND INCOME-BASED PROGRAMS.**

Whatever the reason behind concerns over consumption impacts within an income-based program, the blackboard economics advanced by some opponents of such programs is an insufficient foundation for such concerns. In general, blackboard economics ignores that low-income energy bills rarely are a mechanism through which price signals are sent to low-income households. The reliance upon blackboard economics in this instance has both theoretical

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<sup>188</sup>This program requirement has been challenged before the state public utilities commission by Philadelphia Community Legal Services representing income-eligible clients. The PUC was told that such a requirement provides an unreasonable incentive for customers not to pay their electric bill so as to become eligible for the CAP program.

<sup>189</sup>The Conservation Company, *Evaluation of Philadelphia Electric Company's Customer Assistance Program* (April 1987).

and practical shortcomings.

### **1. The Theoretical Shortcomings.**

Price theory has little real world applicability to low-income energy rates. Low-income households do not respond to "price signals" tied to rates. For price signals to be effective, the household must be responsible for paying its entire home energy bill. That, however, is not the case.

The mere receipt of LIHEAP assistance, for example, effectively distorts the price signal for consumption paid for by the benefit.

Moreover, price signals assume that households pay their entire home energy bills. With low-income households, that most often is not the case. If, in other words, a household can afford to pay only \$60 toward its home utility bill in the first place, rendering a bill for \$120 rather than \$100 provides no price signal to that consumer.<sup>90\</sup>

Third, winter payment plans tend to render price signals irrelevant. Through a winter payment plan, households in many states are allowed to pay less than their full monthly bill during the winter months so long as the accrued shortfall is retired before the start of the subsequent heating season. During neither the winter nor the summer months, therefore, is there a price signal being provided to the low-income household. In the winter, consumption is "under-priced"; in the summer, consumption is "over-priced."

Finally, equal budget payment plans render price signals irrelevant. Substantial effort is made to solicit low-income participation in budget billing (often known as level billing) plans. In this fashion, the household pays an equal monthly bill throughout the year. At the end of the year, there is a true-up, with the difference rolled into the next year's budget. These plans are promoted as a mechanism to take the peak off of winter heating bills. In so doing, however, the efficacy of any price signal incorporated into monthly rates is destroyed.

### **2. The Practical Shortcomings.**

The blackboard theory used in opposition to income-based energy

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<sup>90\</sup>Direct Testimony of Barbara Alexander, Before the Maine Public Utilities Commission, *Re. Central Maine Power Co.*, Docket No. 89-68 (January 1990).



assistance programs faces practical shortcomings also. The theoretical arguments ignore the practical implementation of such programs which render the theory inapplicable.

Income-based programs are not implemented in isolation from affirmative efforts to promote conservation. Indeed, PIPP programs are ideal vehicles through which to target low-income conservation efforts. In contrast to traditional programs, income-based programs expressly incorporate usage data as an essential part of the determination of benefits. As a result, high use customers, as well as customers whose usage substantially increases over prior periods, are readily identifiable. Conservation efforts are then directed to these households on a priority basis. Indeed, because high usage means high benefit payments, income-based programs effectively create incentives for the government to target conservation programs, to increase the efficiency of the distribution of benefits.

Even without such affirmative conservation efforts, it is unreasonable to expect that households will indiscriminately waste energy merely because the energy usage above the income-based payment is being paid for by someone other than the household. Instead, what happens is that households seek out a zone of comfort within which to live. When that zone has been reached, additional consumption will not occur regardless of the "price signals" provided through a marginal cost of zero.<sup>191\</sup>

This result is particularly true for heating consumption. There is no reason to believe that a household wishes to live in a home with a temperature of 80 degrees rather than 72 degrees, for example, merely because the financial responsibility of the household is limited to a percentage of income. Nor is there reason to believe that a household will open windows while heating a home as a result of the placement of financial responsibility on other parties. If energy waste does occur because of a lack of weatherization, because of broken windows, or similar reasons, that usage is not tied to inappropriate price signals but rather to insufficient income to provide repairs. Moreover, this type of excess consumption can be identified, as discussed above, and the program can offer affirmative measures to address these problems.

Non-heating consumption results in a different analysis. With non-heating consumption, an income-based program does not necessarily lower

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<sup>191\</sup>Barnes, *A Study of Client Satisfaction: The Percentage of Income Payment Plan* (1987).

the "marginal cost" of additional consumption to zero. In order to increase non-heating consumption, households would likely need to make a capital investment in new appliances. Despite the benefits provided through the income-based fuel assistance program, the availability of discretionary income for such investments is limited.<sup>1921</sup>

### C. SUMMARY.

As income-based energy assistance programs become more common, it is important to gain an understanding of what impact such programs will have on important conservation principles. The conclusion flowing from this review of past studies is that an income-based program, unto itself, has no discernible impact on consumption. Whatever factors might influence household consumption decisions, the presence of an income-based assistance program is not such a factor. Consider that:

oIn Rhode Island, household consumption was as likely to increase as to decrease under that state's PIPP. Most households, however, fell within a narrow band of usage (plus or minus ten percent), thus effectively representing no change.

oIn Ohio, while the PIP participants in that state had higher natural gas consumption than non-PIP participants, the PIP household consumption did not increase because of the program. The consumption prior to program implementation was the same as the consumption after program implementation. No difference was found for electric consumption.

oIn Minnesota, results similar to Rhode Island were found. On an individual household basis, consumption was just as likely to go up as to go down. In addition, no differences were found in Minnesota as between the agency which implemented a consumption cap and the agency which did not implement a cap.

oIn Montana, natural gas consumption was found to have increased for PIP participants while no change was found for electricity consumption. This result is puzzling in that the same company provides both natural gas and electric service and the bills for both services are aggregated into one "amount due."

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<sup>1921</sup>Direct Testimony of Michael Sheehan, Before the Massachusetts Department of Public Utilities, *Re. Western Massachusetts Electric Company*, Docket No. DPU-86-280 (April 1987).

oIn Illinois, natural gas consumption was found to have increased for some utilities and to have decreased for others. Similar results were found for electric consumption. For those Illinois utilities that did have increases, the increases came despite a strict cap on the provision of benefits.

## PART VI: PIPP AS IT RELATES TO EMERGENCY ASSISTANCE FOR FAMILIES WITH CHILDREN.

The Emergency Assistance (E.A.) program<sup>193\</sup> is still a major source of supplemental funds available to assist families facing an energy crisis. State use of the Emergency Assistance Program for energy crises has the distinct advantage of leveraging state funds, and is particularly attractive in light of both the cuts in appropriations for the Low Income Home Energy Assistance Program (LIHEAP) in recent years, and the diminishing oil overcharge and other funds available to make up for those cuts.

E.A. is an optional program within AFDC, under which the federal government provides states with matching funds (1:1) for short term help to AFDC and other needy families with children, unable to meet emergency expenses. The types of emergencies covered by E.A. are matters of state discretion. Utility emergencies, however, are prominently mentioned in the statute's legislative history.<sup>194\</sup>

In 1985, there were only five states that used E.A. monies to assist households confronted with utility shut-offs or fuel shortages, or threats of either. As of June, 1990, however, roughly a dozen states have E.A. plans approved by HHS which explicitly state their intent to use E.A. funds to meet the needs caused by energy emergencies.<sup>195\</sup> In addition, three states have used a valuable variation on this theme, tapping basic needs and special needs provisions of the statute.<sup>196\</sup> In June of 1990, the Center contacted these states in an effort to understand how they were administering their E.A. funds, and what, if any, coordination these programs have with LIHEAP.

Interaction between LIHEAP and E.A. varies significantly from state to state. Most states run the programs totally independent of each other, only requiring that eligible applicants either apply for LIHEAP benefits or, in some cases, exhaust their LIHEAP benefits, including regular and crisis assistance,

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<sup>193\</sup>42 U.S.C. §§ 601, 603(a)(5), 606(e) (1987 and 1990 supp.)

<sup>194\</sup>See, e.g., S. Rep. No. 744, 90th Cong., 1st Sess. (1967), as reprinted in the 1967 *U.S. Code and Congressional and Administrative News*, at p. 3002, and H. Rep. No. 544, 90th Cong. 1st Sess. (1967), at p. 109.

<sup>195\</sup>Delaware, Georgia, Maine, Maryland, Massachusetts, Minnesota, Montana, Nevada, Ohio, Oklahoma, Oregon, and West Virginia.

<sup>196\</sup>Illinois, Michigan, and Pennsylvania.

before they can receive E.A. For example, **Ohio** requires that an eligible household exhaust its LIHEAP funds before it can receive E.A. monies, and state regulations further stipulate that no E.A. monies for this purpose can be given out during the months of LIHEAP operation (November-April). **Massachusetts** has a similar program approach except monies can be tapped at any time of the year. However, due to the states's severe budget crisis, government officials informed the Center that this once generously funded program is targeted for cutbacks.

**Michigan** provides an alternative and innovative way to use E.A. monies to assist those families confronting an energy emergency. The state utilizes the E.A. program directly to augment LIHEAP crisis assistance funds. All applicants for assistance in meeting an energy crisis are initially funded through the LIHEAP block grant. However, if at the end of the fiscal year, there are not enough LIHEAP crisis funds to meet the need for this assistance, the E.A.-qualified applicants are covered by E.A. funding.

Similarly, **Wisconsin's** E.A. fund for energy crisis assistance is administered through the LIHEAP energy crisis program in an integrated fashion. For example, if two households qualify for LIHEAP's emergency assistance, with one eligible under E.A. and the other not, the state will process both applications in the same manner except that the E.A.-eligible family will be paid with E.A. monies, while the other families will be provided with LIHEAP crisis dollars.<sup>1971</sup>

The delivery of PIPP benefits should be tied as directly as possible to the Title IV-A Emergency Assistance Program. In particular, the Commonwealth should seek to determine whether the forgivable arrears component of the proposed PIPP may be claimed as a state match for E.A.-eligible clients for purposes of obtaining additional federal E.A. dollars.

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<sup>1971</sup>Georgia follows a similar program design except that no LIHEAP funds are used for the state's crisis program. Households not eligible for EAP are paid from a fund consisting of private fuel fund donations and oil overcharge monies from the *Stripper Well* case, instead of the LIHEAP block grant funds used in Wisconsin's crisis program.

## **PART VII: EVALUATION OF PROGRAM RESULTS.**

The purpose of a demonstration project is to allow the state, the utility and the LIHEAP subgrantee to test the principles of a PIPP under actual circumstances and to provide for the structured evaluation of a variety of factors regarding the test. The evaluation should involve both a process evaluation and an impact evaluation.

### **A. PROCESS EVALUATION.**

Any evaluation of a PIPP demonstration project should involve a process evaluation of the program. This evaluation should examine the design, development and implementation of the project. The purpose of the process evaluation is to make assessments that will improve program development and make the program operate more efficiently and effectively.

The process evaluation proposed for the Massachusetts Electric PIPP demonstration project will assess the structure and functioning of the project within the LIHEAP subgrantee, within the state LIHEAP agency, and within the utility. It will, as well, examine the coordination among and between these organizations. Specific areas to be included in this evaluation should include, but not be limited to, the adequacy of program plans and procedures; whether practice adheres to the plans and procedures; the flow of clients through the program; the flow of paper processing; the timeliness of client and paper processing; the administration of eligibility criteria; client selection; and the adequacy of staffing and staff training.

Specific issues to be examined in the process evaluation should include: the interaction between agencies; the selection process for participants; communication between agencies (including the utility) and the clients; communication amongst the agencies; the implementation of energy education components; the costs of conducting each component of the program; the agency process of reaching and entering clients; the ability to retain participants; the paper flow; and periodic report processes.

In short, in undertaking a process evaluation, several observations are relevant: A program must work. It must operate in a manner such that the LIHEAP providers, the utility and the clients can understand and operate it. The program must be inherently understandable. It cannot be personnel dependent. It must be able to survive staff turnover. It must be able to survive the unexpected.

At the same time, a process evaluation must assess whether the program is accomplishing what it purports to accomplish. Is it reaching the population it seeks to reach? Is it providing benefits in a timely and effective manner? Is it inclusive or exclusive? What are its impacts on other aspects of utility operations, LIHEAP operations and the like?

## **B. IMPACT EVALUATION.**

In addition to undertaking a process evaluation, there must be an impact evaluation as well. This evaluation will develop data sufficient to serve as a basis upon which to render opinions on the success and/or impact of the demonstration project in addressing the needs of and assisting the LIHEAP population.

The effectiveness and the cost-effectiveness of the program (from the utility viewpoint, the client viewpoint, and the LIHEAP provider viewpoint) depend in large part on consumption and demographic data. The "effectiveness" of the program measures whether the program generates the desired results. "Effectiveness" encompasses, also, whether the program generates adverse results that overcome or outweigh the desirable impacts. Effectiveness, in other words, involves a balancing process of the good impacts versus the bad.

Cost-effectiveness, too, must be considered in this evaluation. Cost-effectiveness is to be determined from three perspectives.

oFirst, one must determine whether the benefits outweigh the costs. This evaluation is not sufficient unto itself, however.

oA second level of analysis must be an assessment of whether the level of benefits, in some absolute form, is sufficient to merit the effort. A benefit level of 1.1, for example, may simply be insufficient to merit continuation of the program given reasonably anticipated risks of future changes. (If, in other words, the program is marginally beneficial, but is made so by an assumed continuation of federal fuel assistance at current levels, perhaps additional thought should go into that finding.)

oFinally, the evaluation must look beyond the program actually being administered. This evaluation must be of whether the program obtains the benefits in a manner that is less expensive (or more beneficial) than available alternatives.

Among the factors to consider in the impact evaluation include:

1. **COST COMPARISON (administrative)**: The purpose of the cost comparison is to determine the relative costs to the utility, the Commonwealth, and the LIHEAP subgrantee regarding the handling of low-income customers through the demonstration PIPP project and through the more traditional LIHEAP structure. Expenses should include the start-up and administration of an ongoing demonstration project including data processing, outreach, staff training, client education and the like.
2. **COST COMPARISON (benefit)**: Sensitivity analysis should be performed to determine the extent to which, if at all, the success or failure of the PIPP demonstration is sensitive to external factors. These factors might include, for example: (a) participation levels; (b) rate levels; (c) weather; and (d) federal LIHEAP appropriation levels. The projected impact of variation in each of these four factors on demonstration program results should be considered.
3. **COST COMPARISON (utility collection)**: Another purpose of the cost comparison, also, is to determine the extent to which, if at all, the PIPP results in increased revenue and decreased credit and collection expenses for the participating utility. Credit and collection expenses would include, for example, traditional collection notices; field visits for collection action, termination and reconnection; negotiating, setting up and monitoring payment agreements; carrying arrearages; and writing-off uncollectible balances. A revenue analysis should examine total dollars collected, percentage of bills paid, the "bills behind" which a client experiences at any given time.<sup>198\</sup> In addition, a revenue analysis should quantify the additional revenue received by maintaining customers during times that otherwise such customers would, voluntarily or involuntarily, have been disconnected from the system.<sup>199\</sup> For example, during the warm weather months, when

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<sup>198\</sup>"Bills behind" is a measure of arrears created by the Pennsylvania Public Utilities Commission. Instead of looking at dollars, it divides total arrears by average bills to determine how many "bills behind" the customer is. The measure helps in making cross-utility comparisons where different rates, different weather and the like might make a comparison of dollar arrears misleading.

<sup>199\</sup>Note that in Philadelphia, for example, Philadelphia Gas Works loses roughly 14,000 to 17,000 residential accounts during the summer months, only to gain those accounts back by the following



in the absence of a PIPP, Massachusetts Electric might have lost some customers altogether, under PIPP, it might instead bill and collect most of its revenue.

**4. PARTICIPANT USAGE CHARACTERISTICS:** There will be a need to track participant consumption patterns to determine whether consumption increases when amounts billed to customers are tied to a percentage of income (rather than varying with the amount of energy consumed). Along with this inquiry into whether use of service increases, decreases or does not change with program participation, an inquiry should be pursued into the impacts of energy education on these usage patterns. Some of the issues to examine in this broader inquiry will include:

A. Individual household consumption.

1. How many individual households increased consumption.
2. How many individual households decreased consumption

B. Class consumption patterns.

1. Did the aggregate participant class consumption increase, decrease or stay the same.
2. Do particular individual households disproportionately affect the aggregate.

C. Consumption patterns by demographics.

1. Elderly.
  2. Housing type (single family detached, multi-family, etc.).
  3. Housing tenure (renter, owner).
4. Length of tenure.

D. Controllability of consumption.

1. Renter/owner.
2. Available conservation investment capital.

(...continued)

December and January. Each of those lost accounts represents a lost revenue stream for the company. In contrast, the Energy Assurance Program being operated by PGW kept those households on the system during those warm weather months. In addition, more than 70 percent of the participating households were current in their bills over those months while more than 90 percent were either current or less than three months behind. This is particularly promising from the perspective of generating revenue that otherwise would be lost because the warm weather month payments for the PGW sample represented \$127,051 in income while the fully embedded bill represented \$128,432.

3. Extenuating circumstances.

**5. CUSTOMER PAYMENT PATTERNS:** The crux of the evaluation will be the extent to which households make current payments under the PIPP. The intent of the PIPP is to set home energy rates at an affordable level. Having accomplished that purpose, it is reasonable to expect home energy payments thus to be made. Among the issues to be examined in this inquiry are an identification of factors associated with succeeders and non-succeeders; the reasons for the success or non-success of particular customers; and a demographic analysis of both succeeders and non-succeeders. Some of the other issues to be examined in the broader inquiry into customer payment patterns include:

A. Most recent year.

1. Sum bills vs. sum payments.

2. Count monthly bills paid in full by due date

3. Examine "treatment history"<sup>100\</sup>

4. Calculate percent of monthly bill by vintage

a. Pct of total monthly bill which is current bill.

b. Pct of total monthly bill which is 30-day arrears.

c. Pct of total monthly bill which is 60-days arrears.

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<sup>100\</sup>A customer's "treatment history" is the history of collection efforts directed toward that household. It includes, for example, reminder notices, shutoff notices, disconnects for nonpayment, and the like.

5. Calculate percent of monthly bill by vintage by season:
- a. Pre-winter (October)
  - b. Dead of winter (February)
  - c. Post winter (May)

B. Compare most recent year of program participants to prior year (preferably pre-participation year) for program participants.

C. Compare payment patterns by demographic classes.

1. Elderly vs. non-elderly.
2. Housing type
3. Pre-program arrears
4. Length of tenure

D. Separately compare first year of participation to second year of participation.

E. Compare most recent year of program participants to general residential population sample.

F. Compare payment patterns of program participants to payment patterns of samples of residential customers on traditional LIHEAP program.

G. Compare proportion of billed revenues paid by household, as well as proportion of billed revenues paid by LIHEAP, before and after PIPP as well as between households receiving PIPP benefits under the demonstration project and households receiving traditional LIHEAP.

**6. DEMOGRAPHIC ANALYSIS:** In addition to the various demographic analyses discussed above, demographic analysis should be pursued both of client participation and nonparticipation<sup>\101\</sup> and of client gainers and losers.<sup>\102\</sup> Among the demographics to examine in such an inquiry will be:

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<sup>\101\</sup>As discussed above, some LIHEAP recipients will find that their household percentage of income payment will exceed their actual energy bill and will, accordingly, choose not to participate in PIPP.

<sup>\102\</sup>Since the PIPP will involve a redistribution of LIHEAP benefits, some clients will receive more benefits (hence, "gainers") and other will receive fewer benefits (hence, "losers").

A. Descriptive analysis of the participant population.

1. Income level
2. Income source
3. Age of head of household
4. Presence of children under 18
5. Housing type (single family detached, multi-family, etc.)
6. Housing tenure (owner or renter)
7. Other

Other issues to consider within the Project evaluation should include as follows:

A. **Telephone service**: Does the lack of telephone service by Program participants interfere with the success of the Program.

B. **In-service date**: Does the in-service date of Program participants affect their successful participation in the Program.

C. **Education**: Does the educational level of Program participants affect their successful participation in the demonstration project.

D. **Poverty Level**: Does the poverty level (i.e., income taking into consideration family size) of program participants affect their successful participation in the demonstration project.

E. **Mobility**: Does the "mobility" of program participants affect their successful participation in the demonstration project.

F. **Children in household**: To what degree do program participants represent households with children? Is the presence of children associated with program participant success or failure? Does the presence of children present an opportunity to tie the program into supplemental (or complementary) funding provided by the federal Title IV-A Emergency Assistance (E.A.) program.

### C. ASSESSMENT OF SUCCESS OR FAILURE.

Before any "evaluation" of the PIPP demonstration project occurs, participants must develop clear measures of success or failure for the program. This development must occur first both (1) to ensure that adequate data is

developed and maintained to permit evaluation on the desired factors, and (2) to ensure that the data collection and evaluation inquiry is developed so as to test the measures of success or failure (rather than fitting the measures of success or failure to whatever data might later be found to exist).

The following measures of success and failure are set forth below as "results" (successes) and "consequences" (failures) in terms that are subject to empirical measure:

## **RESULTS**

1. Does the program result in a reduction in shutoffs among the affected population.
2. Does the program result in a reduction in accrued arrears among the affected population.
3. Does the program result in reduced collection activity directed toward the affected population.
4. Does the program result in cost savings to participating utilities.
5. Does the program result in a more rational distribution of federal fuel assistance funding in that LIHEAP benefits are more closely matched to actual costs, taking into consideration household size.
6. Does the program result in a better working relationship between the utilities, their customers and the fuel assistance agencies.
7. Does the program result in regular monthly payments by customers who historically have not made such payments.

## **CONSEQUENCES**

1. Can the program be operated at a reasonable cost.
  - a. Are the program/benefit costs reasonable.
  - b. Are the administration costs reasonable, both to the utilities and to the

Commonwealth.

2. Is the program feasible from the perspective of administrative complexity/simplicity.
3. Does the program result in satisfactory customer acceptance.
4. Can the program be operated without significant increases in customer usage.
5. Can the program be operated without unacceptable adverse consequences for those not participating as well as for those losing degree of benefits.
6. Is the program sufficiently stable to "survive" changes in weather, energy costs, LIHEAP appropriations, and client participation levels.

## CONCLUSIONS AND RECOMMENDATIONS

Based on the analysis presented in this report, the following major conclusions can be reached regarding both the current LIHEAP structure in the Massachusetts Electric Company service territory and alternatives to that structure:

1. The current method of distributing LIHEAP benefits in Massachusetts can be improved so as to move the targeting of benefits closer to actual cost. In so doing, the distribution of LIHEAP would more closely implement the federal statutory mandate that benefits are to be targeted based on actual cost, taking into consideration household size and income.
2. Any alternative method proposed for distributing LIHEAP in the service territory of Massachusetts Electric Company should take into consideration the facts of uncertain LIHEAP appropriations and severely limited LIHEAP administrative budgets. Fairness and efficiency must be balanced with simplicity and practicality.
3. A number of methods exist that would result in an improvement in the Commonwealth's efforts to comply with federal statutory guidelines. More particularly, all four of the alternatives studied<sup>103)</sup> improve compliance with the statutory mandate; at the same time, they are both affordable and practical.
4. The PIPP is the preferable alternative studied. It would be affordable to the Commonwealth. It would improve the affordability of home energy to clients. It can be made administratively simple. It would most closely match the amount of the LIHEAP grant to the household's actual energy burden. It would yield the greatest benefits to the Commonwealth, to Massachusetts Electric Company, and to the LIHEAP recipients of Massachusetts Electric.
5. A PIPP demonstration project, limited in both time and geography, should be pursued for a three year trial basis beginning in the 1992

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<sup>103)</sup> These include, in order: PIPP, the LIHEAP Lifeline Rate, the LIHEAP Outlier Buydown Program, and the Actual-Cost-Based Crisis Program.

Program Year if feasible<sup>\104\</sup> with evaluations after years one and two and a decision to continue, expand or abandon the program being made during Year Three.

6. The attractiveness of a PIPP demonstration project is enhanced because of the administrative experience which New England Power Service has with PIPP administration through its affiliate's (Narragansett Electric) experience with the Rhode Island PIPP.
7. An arrearage forgiveness program is an essential component of any redistribution of LIHEAP funds. It is reasonable to forgive pre-program arrears over a 36-month period. It is also reasonable to require households to make a contribution of three dollars (\$3) per month toward those arrears.
8. There are a sufficient number of households with children facing energy crisis situations that Massachusetts should aggressively pursue possible ties between the federal Title IV-A Emergency Assistance Program and all aspects of the PIPP and its arrearage forgiveness component.
9. Given the significant energy consumption by some Massachusetts Electric Company LIHEAP participants, the Commonwealth, as well as the Company, should seek to provide targeted publicly and privately-funded conservation and weatherization assistance to those households having the largest bills as well as the largest energy burden as measured by percentage of income.

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<sup>\104\</sup>October 1, 1991 through September 30, 1992.



## APPENDIX A

### BASIC DESIGN OF A RECOMMENDED PIPP (WITH COMMENTS)

- a. To maintain their participation in the PIPP and partake of its benefits, households would be required to make equal, regular monthly payments, based upon a percentage of their income. (For purposes here, these household contributions will be called "copayments".)**

**COMMENT:** This is the essence of the PIPP approach. Assuming that the payment levels are reasonable, it combines sensitivity to the financial capability of low income households with the proven benefits of monthly payment plans.

- b. At a minimum, PIPP should be offered for the source of primary heating fuel.**

**COMMENT:** In order to ensure continued utility service, the plan *should* be offered both for the primary heating source and for non-heat electric. This two-part approach is currently in effect in Rhode Island, Ohio and Illinois and recognizes that loss of non-heat electric service can disable a home heating system. However, given the budget constraints imposed by federal and state appropriation levels, whether the PIPP can be extended to cover secondary as well as primary heating fuels remains to be determined.

- c. The percentage of income payments required of participating households would be set in accordance with a matrix reflecting household size and Poverty Level.**

**COMMENT:** The level of payment should vary with both income and family size, with the lowest copayment for large households at low incomes, and the highest copayment for one and two person households at the higher end of the income spectrum. This system recognizes that the same percentage payment for energy costs represents a more substantial burden for large families or those with incomes of a small fraction of eligibility guidelines.

For ease of administration, a household's Poverty Level will be used as a surrogate for income and household size. A matrix disaggregating participants into three groupings (0-50% of Poverty; 51-100%; 101%+) is recommended.

The actual percentage payments would be derived by subtracting the available

LIHEAP funds from the LIHEAP household's heating bill.<sup>105\</sup> Percentage of income payments, in other words, are *not* based upon an analysis of "affordability," and they are not represented to be as such. The question of affordability in this context leads to the conclusion that it cannot be defined.

There are no usable definitions of affordability. Something is affordable if a household "is able to meet the expense." (American Heritage Dictionary) Unfortunately, one must be concerned here not only with the strict ability (cash on hand) to meet *energy* expenses, but also with the context in which those expenses arise, i.e., a situation where they are one of a series of important expenses, calling upon a limited amount of resources. A rapid increase in health care expenses may render a heretofore reasonable energy bill unaffordable. In a very real sense, then, any analysis of the "affordability" of any commodity or expense is meaningless without an examination of the affordability of other expenses, such as housing or food, as well.

For the purposes of establishing percentage levels for PIPP, one must rely upon common sense and an evaluation of available resources. There is no intention here to suggest that any particular household payment level is affordable. Based on experiences in other states, however, it is reasonable to believe that the vast majority of eligible households will be able to meet their required PIPP payments. If additional funds could be made available to the PIPP, the household's percentage of income payment could be reduced. Nevertheless, the PIPP must be designed to anticipate that *some* families will not be able to meet one or all of their payments. This suggests that lenient policies for repairing defaults would be necessary and that the continuation of an emergency assistance program (both discussed below) would be prudent.

**d.As long as the monthly copayments are made, a household's primary heating utility service is "guaranteed" to participating households.**

**COMMENT:** What this really means is that LIHEAP has been tailored to cover the difference between the household's copayments and their actual bill. This

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<sup>105\</sup>A household's bill is not, however, disaggregated into heating and non-heating components. Hence, if a household heats with electricity, all electric use will be subject to the PIPP. If a household heats with natural gas, all natural gas use will be subject to the PIPP. For example, hot water and space heating uses are not disaggregated for PIPP purposes.

guarantee will be tempered, however, by provisions for ensuring that households do not abuse the program.

**e.The payment for the difference between the copayment amount and the actual bill (called the "true-up") will be made directly to the utility by the LIHEAP system.**

**COMMENT:** LIHEAP benefits are currently paid directly to the vendor. The "true-up" from the state to the utility would occur at various points during the course of the year.

**f.The PIPP would be "the" LIHEAP for covered customers. There would be no option to participate in the existing energy assistance program for qualifying households.**

**COMMENT:** Under the PIPP some households may receive fewer benefits than under the existing LIHEAP program. It would be far too expensive to allow households to choose the plan that maximized LIHEAP benefits. Moreover, under the PIPP, no family will pay more than an established percentage of their income for home energy.

**g.Income eligibility would be established in accordance with the rules for LIHEAP (currently 60% of state median income.)**

**COMMENT:** Being the LIHEAP program for Massachusetts Electric heating customers, program eligibility would have to be consistent with the rest of LIHEAP.

**h.The household's percentage of income payment (or copayment) will be set, in actual dollar terms, at one point and maintained throughout the year.**

**COMMENT:** Under PIPP, a household would not be required to apply a particular percentage to any fluctuating income during the course of the year, nor would it be required to come in to obtain a different copayment amount in the event of significant changes in household income. This is consistent with the current operation of LIHEAP. The one possible exception would be the right of a household to re-apply, in light of a major shift downward in income, so that it could get a revised copayment more consistent with its new ability to pay.

**i.At the beginning of the program, a participating**

**household's accumulated arrearages would be amortized, or forgiven, over a 36 month period, with 1/3 of the household's accumulated arrearages erased each year. Households failing to maintain their obligations under the PIPP, however, would not obtain arrearage forgiveness for the period in which the default occurred (unless the default is cured).**

**Arrearage forgiveness would not begin until the sixth successful month of participation. At the end of this time, one sixth (1/6) of the outstanding arrears will be forgiven. At the end of each additional three months of successful participation in the program one twelfth (1/12) of the outstanding arrears will be forgiven. Thus the arrearage forgiveness schedule would be set initially in terms of a six month period and subsequently in increments of three months.**

**Households would be required to pay \$3 per month for the 36 months of the program toward their preprogram arrears.**

**COMMENT:** This provision, or some equivalent, is essential for the success of PIPP. The obligation to make payments on arrears would destroy the basic concept of the PIPP. The alternative to a forgiveness plan is to simply prevent the utility from using service disconnection as a collection mechanism for these funds.

Passage out of eligibility will not affect a previous year's amortization. However, failure to meet a PIPP payment, or to remedy default upon a payment, will prevent amortization for the period in question. Households dropping out of the PIPP for other reasons, for example, moving outside the jurisdiction, would be forgiven a pro rata portion of that year's arrearages.

The utility would recover the net cost of the arrearage forgiveness program out of their uncollectible account. Under the PIPP program, the utility should experience a dramatic reduction in arrearages and uncollectibles. This reduction would then be balanced by the costs of the short term arrearage forgiveness program. The precise effect on the uncollectible account would depend upon the value of the arrears of participating households, a number which is unavailable at this time.

The purpose of the arrearage forgiveness provision is to permit households who

have become hopelessly behind on their energy bills to earn a clean slate. In exchange for this opportunity, the household agrees to make the required monthly payments and to participate in conservation and/or weatherization programs to minimize the utility's exposure to the risk of loss in the future.

The proposed monthly household contribution will generate some funds to offset the pre-program arrears of EAP participants. The magnitude of the monthly charge, however, must be tempered by the need to keep the overall monthly payment affordable.

**j. Households that default on PIPP copayments will be allowed to repair the default by paying the back monthly PIPP payments. This privilege will extend for up to three months. Households that fail to repair PIPP defaults will be responsible for all future usage and may be held responsible for usage in past months.**

**COMMENT:** Easy repair of a household's default of its monthly copayment is also critical to the success of the program. As outlined above, PIPP must be designed in a way that anticipates that certain households will have difficulty in making their regular monthly copayments, regardless of the benefit schedules. Program design must take this fact into account when considering any penalties for not conforming to the monthly payment program. Ample time should be available to households who have difficulty in meeting copayments.

However, households must not be able to pay PIPP copayments during high-use winter months when the PIPP subsidy level is high, only to default in the spring or summer when the actual bill is low. Households should have no advantage in participating in the PIPP only in the winter months. In order for the program to work, copayments must be made year-round.

**k.The state LIHEAP program must maintain a modest emergency assistance component to help families with difficulties making copayments.**

**COMMENT:** As described above, there is no guarantee that all eligible households will be able to afford the monthly copayments. Even if annual income is sufficient to meet the payments, many low income families experience irregular income with frequent periods of little or no income. Some emergency aid component may be necessary for those households finding themselves in unusual income or expenditure situations, necessitating some further, short term and directed aid. The emergency grants would then be used to make a copayment.

**l.All applicants who are income eligible for PIPP should be guaranteed a minimum benefit regardless of the relationship between their income and energy bill.**

**COMMENT:** Some households who are eligible to receive LIHEAP benefits may choose not to participate in PIPP because their required copayment would be higher than their bill. These households, while carrying a lighter energy burden than most, nevertheless are poor, and would suffer from a complete loss of LIHEAP benefits. Moreover, under the federal LIHEAP statute, a state does not have the option to deny the payment of some minimum level of benefits to a household who has applied for LIHEAP and has been found to be income and programmatically eligible.