MANITOBA HYDRO
2010-2011 GENERAL RATE APPLICATION

CONSUMER ASSOCIATION OF CANADA
(Manitoba Branch) and
MANITOBA SOCIETY OF SENIORS

BOOK OF DOCUMENTS

Materials for the cross examination of Mr. Colton

June 1, 2011

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MANITOBA HYDRO 2010/11 & 2011/12
GENERAL RATE APPLICATION

CAC/MSOS

INFORMATION REQUESTS RE:
PRE-FILED EVIDENCE ON BEHALF OF RCM/TREE

CAC MSOS/RCM TREE (Colton) I-1

Question:

a) In preparing his evidence, did Mr. Colton review s. 2 of the *Employment and Income Assistance Act* and s. 4, 5 and 8 of Employment & Income Assistance Regulation 404/88?

RESPONSE:

No.

MH/RCM/TREE (Colton)-5

Reference: Program outreach and intake, page 42

Question:

a) The rate affordability program outlined relies heavily on social assistance directories to locate eligible customers. Please confirm that these directories will not include those customers who are not on social assistance but otherwise fall within the 125% LICO.

b) How would you propose those customers be reached?

Response:

(a) Confirmed to the extent that the question acknowledges "heavily" but not exclusively.

(b) See response to PUB/RCM/TREE-9(c). See also, the discussion of the definition and application of "Criterion #1" in Mr. Colton's report titled "Best Practices: Low-Income Rate Affordability Programs: Articulating and Applying Rating Criteria" (throughout that report). See also, the publications provided in the attachment to Mr. Colton's response to PUB/RCM/TREE-2(b), which set forth discussions of participation and enrollment in specific programs. See finally, the outreach report appended to this response as Attachment MH/RCM/TREE (Colton)-5(b).

OUTREACH STRATEGIES FOR IOWA'S LIHEAP PROGRAM

Innovation in Improved Targeting

September 2000

Prepared For:

Iowa Department of Human Rights
Des Moines, Iowa

c/

OUTREACH STRATEGIES FOR IOWA'S LIHEAP PROGRAM:

Innovation in Improved Targeting

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September 2000

INTRODUCTION

This report considers mechanisms through which Iowa can seek to enroll additional low-income households in the federal Low-Income Home Energy Assistance Program (LIHEAP). The report considers, also, how to target the distribution of LIHEAP benefits to particularly vulnerable populations.

The recommendations presented below are based on an empirical analysis of data specifically-related to individual locations in Iowa. The intent behind the outreach recommendations is not to indicate that all mechanisms must be used statewide. Indeed, the explicit intent is to identify outreach mechanisms that can be adapted to the individual needs of individual locations. If the LIHEAP program in northeast Iowa wishes to reach more very low-income older persons, there is a recommendation on outreach to very low-income older persons. If the LIHEAP program wishes to reach very low-income preschool children in south central Iowa, there is a recommended outreach process for very low-income preschool children.

The focus of attention on outreach should not be construed as indicating that nonparticipation in public benefit programs such as LIHEAP is exclusively a function of inadequate (or inappropriate) outreach. We know better than to reach that conclusion. There is an entire array of reasons why persons do not enroll in available public benefit programs. Some persons do not perceive themselves to be in need of assistance, and some are correct in so believing this. Some persons believe that, given limited government funds, other persons or households would be "more in need" than they are. Some persons do not believe that the amount of assistance that is available is "worth the effort" that it takes to enroll in the program. Some persons do not wish to be seen as taking advantage of "welfare" benefits. As can be seen, many of these reasons for nonparticipation involve either a lack of need, or a lack of desire to participate in the program.

Aside from these reasons for nonparticipation, however, there are other reasons for nonparticipation which involve a variety of personal and institutional *barriers* which *prevent* enrollment in programs such as LIHEAP.

- **Lack of effective knowledge:** The lack of "effective knowledge" is one such barrier. While consumers may indicate an awareness of energy assistance, their knowledge may not be sufficient to allow them to act. Many consumers, for example, who say they 'know about' energy assistance cannot name a single program.

- **Lack of program awareness:** Similarly, many *elderly* poor do not know of, and thus do not use, existing energy intervention programs designed for their benefit. Since no intervention program can be effective unless it is known and used, the degree to which eligible persons are aware of and utilize such programs is important.

- **Access to program offices:** In some areas, transportation to offices that accept applications may be a problem. For those who are homebound or socially isolated, getting to an office may be nearly impossible.

- **Confusing application forms:** The application forms for some programs represent a major barrier to participation. In particular, many participants find application forms complex and overwhelming *the first time* they seek to enroll in a program.

- **Misperceptions as to eligibility:** Many eligible nonparticipants have misperceptions regarding their eligibility for a program. These households might, for example, mistakenly believe that their income or assets are too high to entitle them to receive fuel assistance, or that some other program requirement precludes their participation. Persons who have been found ineligible for one program (however unrelated to fuel assistance) are less likely to apply for fuel assistance. Similarly, persons who have been found ineligible in the past for fuel assistance are not likely to apply again, even if their circumstances have changed.

As can be seen, there is an abundance of information about how nonparticipation in benefit programs can result from barriers to participation as well as from either a lack of need or a lack of desire to participate. The General Accounting Office once said about Food Stamp enrollment:

> From a policy viewpoint, an informed decision on the part of an eligible household *not* to participate in the program is not an issue. Lack of information about the program, however, and at least some program and access problems can and should be remedied.[iv]

[iv] General Accounting Office, ***Food Stamp Program: A Demographic Analysis of Participation and Nonparticipation***, at 22 (January 1990).

PUB/RCM/TREE-11. Reference: Exhibit RDC-2 p.55-59

a) Please justify cross-subsidizing the residential low income program using revenue from non-residential customer classes.

b) If the proposed residential low income program is funded exclusively from the Residential class, please calculate the required annual increase in the meters charge (Basic Monthly Charge) and the bill impacts for a typical base electric customer and an electric heat customer.

c) Please calculate the bill impacts for a typical Residential non-electric heat customer and a Residential electric heat customer if the meters charge is increased by the proposed amount of $1 per month.

Response:

a. Mr. Colton does not agree with the characterization in the question that a decision to have all customer classes pay for the low-income program. Any number of regulatory policies support a decision to have all customer classes help pay for the proposed low-income program. An illustrative list, without limitation to the full range of rationales that are appropriate for reaching such a decision, includes:

- All customer classes contribute to causing the need for the low-income program, and thus all customer classes should contribute to the cost of the program.
- All customer classes derive direct benefits from the low-income programs, and thus all customer classes should contribute to the cost of the program.
- Nonparticipating residential ratepayers no more cause the need for, nor derive benefits from, the low-income program than do nonparticipating non-residential ratepayers. Nonparticipation is an insufficient basis upon which to ground cost responsibility.
- The objective supported by the low-income program, universal service, is a "public good" that by its nature should be supported by all ratepayer classes (as are other utility-provided public goods).
- The obligation to support universal service is a quid pro quo that helps compensate the community for perquisites provided by the community to the utility qua utility, including such perquisites as the right to use public rights-of-way, ~~the right to exercise eminent domain, and the like.~~

b. If the program is funded exclusively through a meters charge imposed on the Residential class, the monthly meters charge would reach $2.75 per month (leaving a program deficit of roughly $84,000). The bill impact is set forth in Attachment PUB-RCM-TREE-11b.

Applied Public Policy Research

APPRISE

Institute for Study and Evaluation

Ratepayer-Funded Low-Income Energy Programs:

Performance and Possibilities

Final Report

Prepared by APPRISE and Fisher, Sheehan, and Colton

July 2007

Clearinghouse, ratepayer-funded programs represent about 85% of all state and local funding for low-income energy programs. The programs in the states included in the study account for more than three-fourths of all ratepayer funding for low-income energy programs.

Low-Income Energy Needs Assessment

Policymakers throughout the country have identified the need for low-income energy assistance and have made significant commitments to low-income energy programs. In 2005, there was more than $2.4 billion in funding for the Federal LIHEAP and WAP programs and more than $2.3 billion in funding for state and local low-income energy programs. However, for the same year, the aggregate residential energy bill for low-income households was estimated to be about $32 billion. Policymakers considering the implementation and/or expansion of low-income energy programs need information that helps them to assess the needs of households in their jurisdictions.

In this study, we developed national and state-level statistics on the energy needs of low-income households. The national statistics demonstrate the magnitude of the problem facing low-income households and the organizations that serve them. The state-level data, on the other hand, are more relevant to the policymakers who are attempting to address the energy needs of low-income households in their jurisdictions and advocates who wish to demonstrate the need for low-income programs.

National Statistics

At the national level, we made use of a number of data sources, including:

- *LIHEAP Home Energy Notebook for FY 2005*
- *NEADA National Energy Assistance Survey for FY 2003*
- *SIPP "Measures of Well Being" for 1992, 1998, 2003*
- *DOE Residential Energy Consumption Survey for 2001*

From these data sources, we identified energy need indicators for low-income households.

The LIHEAP Home Energy Notebook for FY 2005 documents the rapid growth of the low-income energy bill and can be used to examine the aggregate need for energy assistance.

- *Energy Expenditures* – Total energy expenditures for low-income households grew rapidly from 2000 to 2005, increasing by over 40% in just five years. While growth in LIHEAP funding partially offset the increasing demand for energy assistance, statistics show that LIHEAP benefits only cover about 5.3% of the total residential energy bill for low-income households.

- *Energy Burden* – The median energy burden for low-income households was 9.9% of income in 2005. By comparison, the median energy burden for households that were not low-income was 2.8% of income.

The evidence from the review of program evaluations included in this study is that only the equal monthly payment plans improve customer payment patterns. The one program reviewed in this study, the PGW CRP, that had an equal payment plan, is the only one that found improvements in the number of payments made by customers and the amount of cash payments made. Results from two other evaluations (of programs not included in this study) of low-income affordability programs with equal monthly payment plans also found improved payment patterns.

Arrearages

The evaluations found that a significant share of program participants did not pay their full reduced bill after enrolling in the programs. Because many customers come into the program with arrears and some do not meet their full bill payment obligations after enrolling in the affordability programs, arrears would continue to grow on average if arrearage forgiveness was not provided. Program evaluations showed that significant percentages of program participants received arrearage forgiveness, and the amount ranged from $182 to $403.

Financial Impact

Evaluations of the affordability programs found reductions in the number of collections actions and in the number of service terminations after customers began participating in the programs. There were also small reductions in collections costs, averaging $8 to $16 per customer. Such reductions can help to offset the administrative costs of these programs.

However, the evaluations are generally not able to assess whether programs are cost neutral. To measure cost neutrality, a program would have to measure the net cost of services for customers prior to enrollment (cost minus payments) compared to the net costs after program enrollment. Further, the analysis would require an experimental design where customers in similar situations were randomly assigned to test and control groups. Utility cost of service information is generally inadequate to measure true service delivery costs. Additionally, programs that we have researched have not employed an experimental design. Therefore, we have not found any evidence to either support or refute the hypothesis that programs can be cost neutral. However, based on their design, certain programs are unlikely to be cost neutral. Programs that result in large reductions in payments by customers are unlikely to be cost neutral.

Energy Usage

Energy affordability programs reduce the cost of using energy, and therefore program managers are often concerned that they may result in increased energy usage. However, evaluation results show that this does not occur. Program evaluations find small and insignificant increases in energy usage, or sometimes even find declines in energy usage.

The review of energy affordability program evaluations reinforced the perception that program design is critically important. Many program outcomes can be predicted based on the design parameters that are chosen. Program designers should think carefully about their goals and choose the program design parameters that are most likely to meet these goals.

health and safety repairs and furnace replacement, as well as the more common weatherization measures. Expenditures per home range from $480 for the Maine Low-Income Appliance Replacement Program, which focuses on refrigerators and CFLs, to over $6,000 per home for the Wisconsin Weatherization Assistance Program.

All of the programs studied provide energy education as a part of service delivery. However, the level of energy education that is provided can vary widely by program. Often programs develop detailed energy education procedures, but without adequate training and reinforcement these procedures are unlikely to be implemented according to the protocols. Some of the programs also provide energy education that is separate from service delivery, either as a workshop or an additional follow-up visit. Follow-up to the initial energy education can provide reinforcement for the client and increase the energy savings from the program.

Program Operations

There are many operational aspects of energy efficiency programs that can be delegated to various program actors. These include the program manager, the service delivery contractors, the data manager, and the quality control team. State offices or utilities usually serve as program managers. Community Action Agencies, other nonprofits, for-profit contractors, or a mixture of these types are used to provide program services. Data management is often handled by the state or the utility, and is sometimes done by the contractor(s). Programs often use a mixture of quality control methods, conducting it both by the same contractors that serve the customers, and by the state or utility that oversees the program.

Other operational parameters to be decided upon include the service delivery procedures, the data management systems, and the quality control procedures.

Energy Efficiency Program Evaluation

This section reviews the results of energy efficiency evaluations that have been conducted on the programs that are researched in this study. The availability of energy efficiency program evaluation information differed greatly by state and program. Where possible, we compare and contrast evaluation findings and relate the findings back to program design options.

Targeting

Targeting of energy efficiency programs will vary by the program mandate, goals, and scope. Some programs explicitly target subgroups of the low-income population and some programs tend to serve particular subgroups due to the program design.

One of the most consistent findings from energy efficiency program evaluations is that customers with higher usage provide greater opportunities for savings, and therefore programs that target high usage yield higher savings and more cost-effective service delivery. A rule-of-thumb that is often used is that electric customers should have annual baseload usage that is at least 6,000 to 8,000 kWh, and heating and/or cooling usage of at least 8,000 kWh. Gas usage that is targeted for service delivery is often 1,200 ccf.

Most of the programs studied serve customers with average usage that exceeds these targets. One of the best targeted programs, the Ohio Electric Partnership Program (EPP), serves

- The cost per unit saved is the amount of resources that are devoted for each unit of energy that is saved as a result of the program services over the measures' lifetime. The program is often evaluated as cost-effective if the cost per unit saved is less than or equal to the current or expected future retail price of gas or electricity.

Most of the programs studied would be viewed as cost effective. The Ohio high-use and TEE programs and the PGW CWP have SIRs that are above one. Most of the electric and gas costs per unit saved for the other studies are below the retail cost of electricity and gas.

Bill and Payment Impacts

One of the goals of energy efficiency programs is to make energy more affordable for low-income households through reduced energy usage, and result in improved bill payment compliance. Most but not all of the programs studied resulted in gross and/or net reductions in the participants' average energy bills. The NJ Comfort Partners program reduced combination customers' bills by $234 on average as compared to the comparison group, the Ohio EPP reduced bills by $160, and the PGW CWP reduced bills by $64 as compared to the comparison group.

If customers come close to covering their bill prior to receiving energy efficiency services, the approximately ten percent reduction in energy usage may be enough to help customers meet their bill payment obligations, in the absence of rising fuel prices. Some programs had increased bill coverage rates, but in general significant improvements were not seen.

Findings and Recommendations

The purpose of this study is to furnish comprehensive information on low-income energy programs, including analysis of the energy needs of low-income households, the legal and regulatory framework supporting these programs, the design options for these programs, and the evaluation findings on program effectiveness.

- Needs Assessment – Our study found that the energy needs of low-income households are so large that it might be overwhelming for policymakers to consider options for resolving these problems. However, programs are not designed to serve 100% of low-income need and should not be expected to do so. Through careful research and analysis, it is possible for policymakers to identify the households in the greatest need and to design programs that are targeted to directly address those needs.

- Legal/Regulatory – Each of the 13 states that we studied used a different legislative and/or regulatory mechanism to authorize ratepayer-funded low-income program(s). The examples furnished by the 13 states give policymakers a good understanding of options for program authorization. They also demonstrate that authorization of low-income affordability programs is possible even in those jurisdictions where legislation and/or legal decisions do not favor "preferential" rates.

- Affordability Program Design and Evaluation – Our research on the design, implementation, and evaluation of ratepayer-funded affordability programs demonstrates the importance of targeting the program design to the energy needs of low-income customers and policy goals. A careful review of how program designs affect customer

The challenge for policymakers is not just that average expenditures are increasing, but also that the number of low-income households is increasing as the population grows. Table II-2 shows that, as a result, the total low-income residential energy bill grew from about $22.6 billion in FY 2000 to $31.9 billion in FY 2005, an increase of about 40% in just five years. By comparison, the total low-income residential energy bill grew by only 18% for the entire decade of the 1990's.

Table II-2
Total Energy Expenditures for All Low-Income Households
1990, FY 2000, and FY 2005[10]

Year	Total Expenditures (billions)	Annual Percent Change
1990	$19.1	N/A
FY 2000	$22.6	1.8%
FY 2005	$31.9	8.2%

The LIHEAP program distributes benefits to low-income households for assistance with home heating and home cooling bills. However, the total amount of funding is modest compared to the total low-income residential energy bill.[11] Moreover, the increase in LIHEAP benefits has not kept up with the increase in low-income residential energy expenditures. Table II-3 shows that the share of the low-income energy bill covered by LIHEAP in FY 2005 was lower than it was in FY 1990. [Note: The large increase in LIHEAP funding for FY 2006 may have resulted in an increase in the coverage of the low-income residential energy bill compared to both FY 1990 and FY 2005. However, with the funding made available to date for FY 2007, we expect that the coverage for FY 2007 would decline substantially.]

Table II-3
Percent of Total Energy Expenditures for All Low-Income Households
Covered by LIHEAP, FY 1990, FY 2000, and FY 2005[12]

Year	Total Expenditures (billions)	LIHEAP Benefits (billions)[13]	Percent of Expenditures Covered by LIHEAP
FY 1990	$19.1	$1.25	6.5%
FY 2000	$22.6	$1.14	5.0%
FY 2005	$31.9	$1.69	5.3%

The *LIHEAP Home Energy Notebook for FY 2005* also furnishes other important information on low-income energy needs.

[10] Source: The LIHEAP Home Energy Notebooks for FY 2000 and FY 2005.
[11] Note: The purpose of the LIHEAP program is to assist low-income households with their home heating and home cooling bills. The LIHEAP Home Energy Notebook for FY 2005 shows that LIHEAP covers about 8% of the home heating bill for households that are income eligible for LIHEAP at the Federal maximum income standard.
[12] Source: The LIHEAP Home Energy Notebooks for FY 2000 and FY 2005.
[13] Note: Total LIHEAP funding is higher than the amount indicated. However, about 10% is used for program administration and about 15% is used for delivery of weatherization services.

during the year in which they received LIHEAP and another 25% were classified as vulnerable.

C. National Data on Needs of Low-income Households

A recent report prepared by the Census Bureau uses data from the national Survey of Income and Program Participation (SIPP) to furnish information on the status of all households and low-income households with respect to a series of "Measures of Well-Being."[14] Among the measures examined by the report are statistics on "unpaid utilities" and on "disconnected utilities." Table II-4 shows how the percentage of households experiencing these problems has changed over time. The share of households with unpaid utilities fell from 10.1% to 8.7% between 1992 and 2003. The share of households with disconnected utilities fell from 2.0% in 1992 to 1.3% in 1998, but rose slightly in 2003 to 1.5%.

Table II-4
Percent of Households with Unpaid Utilities
And with Disconnected Utilities, 1992, 1998, and 2003[15]

Measure	1992	1998	2003
Unpaid Utilities	10.1%	9.1%	8.7%
Disconnected Utilities	2.0%	1.3%	1.5%

These problems are significant for low-income households. The report furnishes information on the rates for households at or below the poverty level and for households in the lowest quintile of income. On average, 8.7% of all households have some unpaid utility bills. Elderly households experience that problem at less than half the rate of other households. However, over one-fifth of households with incomes at or below the Poverty Level experience those problems.

Table II-5
Percent of Households with Unpaid Utilities in 2003 by Target Group[16]

Measure	All	All Elderly Households	Lowest Income Quintile	Poverty Households
Unpaid Utilities	8.7%	3.1%	15.9%	21.9%

D. National Data on Energy Saving Opportunities

There is no simple way to accurately assess the need for energy efficiency services for low-income households. Most households have some opportunities for saving energy. However, in designing a program to deliver energy efficiency services, it is important to

[14] *Extended Measures of Well-Being: Living Conditions in the United States, 2003*
[15] *Ibid*
[16] *Ibid*

consider which program models have been most successful in delivering energy savings. Two program models have proven to be particularly cost-effective.

- Targeting High Users – Energy efficiency programs that target high users have proven to be the most cost-effective. High users tend to have more opportunities for saving energy and programs that target them are best able to amortize the high fixed costs of delivering a comprehensive package of energy services. One advantage of these programs is that, since they result in significant energy savings, they can have a significant impact on energy affordability for low-income households.

- Mass Distribution – Mass distribution programs tend to furnish common energy saving items to a large number of households at a very low cost per household. While these programs can be very cost-effective, they do not have a very large impact on the energy bills of an individual household.

It is useful to consider what share of low-income households might fall into the high user category when designing affordability and energy efficiency programs. From our review of energy efficiency programs, we have seen that three levels of electric usage and one level of natural gas usage might be appropriate to designate as "high usage."

- Electric Baseload – If a household uses some other fuel for heating and water heating, using over 8,000 kWh per year usually indicates that there is significant energy saving potential.

- Electric Water Heat - If a household uses electric for water heating, but some other fuel for heating, using over 12,000 kWh per year usually indicates that there is significant energy saving potential.

- Electric Heat - If a household uses electric for water heating and space heating, using over 16,000 kWh per year usually indicates that there is significant energy saving potential.

- Natural Gas – If a household uses natural gas for water heating and space heating, using over 1,200 ccf per year usually indicates that there is significant energy saving potential.

Using these thresholds, we examined consumption and expenditure data for low-income households from the 2001 RECS. We found that a significant number of low-income households have good energy saving potential.

Table II-6 shows the estimated number of households with electric or natural gas usage. We estimate that there are about 3.5 million low-income households with natural gas or electric space heating that have usage levels that would suggest that they are very good candidates for weatherization. We estimate that an additional 4.5 million households have excellent energy saving opportunities for electric baseload energy efficiency measures.

Table IV-1
Ratepayer-Funded Low-Income Programs Included in Study

Program Reference	Program Name	2006 Program Funding (millions)	2006 Program Participants
CA-CARE	California Alternative Rates for Energy	$622.2*	3,368,783*
IN-CGCU	CGCU Universal Service Program	$3.0	17,700
IN-NIPSCO	NIPSCO Winter Warmth Program	$5.6	14,916
IN-Vectren	Vectren Universal Service Program	$5.9	25,868
MD-EUSP	Electric Universal Service Program	$34.4	83,853
ME-MPS	Low-Income Assistance Program (LIAP)	$6.5*	30,000*
ME-CMP			
ME-BHE			
MO-Laclede	Assistance and Arrearage Program	$0.4	2,184
MO-ELIR	Experimental Low-Income Rate (ELIR)	Ended in July 2006	
NJ-USF	Universal Services Fund	$102.0*	162,490*
NV-EAP	Energy Assistance Program	$8.8*	17,577*
OH-PIPP(E)	Electric Percent of Income Payment Program	$104.8	209,960
OH-PIPP(G)	Gas Percent of Income Payment Program	Not available	194,400
OR-EWEB	Customer Care and Customer Care Plus	$1.6	4,558
OR-OEAP	Oregon Energy Assistance Program	$9.9	22,514
PA-PECO	Customer Assistance Program	$70.0	116,829
PA-PGW	Customer Responsibility Program	$70.2	76,045
WA-LIRAP	Low-Income Rate Assistance Program	$3.2	6,980
WA-HELP	Puget Sound Energy HELP Program	$8.5	17,973
WI-WHEAP	Wisconsin Home Energy Assistance Program	$25.4	155,791

*Statistics for 2005

Some states have a fixed level of program funding while others have not established a funding limit. California has set a goal of maximizing enrollment in the CARE program. In 2005, funding for that program was about $563 million. Currently, the New Jersey USF program does not have a funding limit. In 2005, funding for that program was about $111 million. However, the NJ USF evaluation found that if all eligible households were served, about $400 million would be required.

Other states do not allow funding to be open-ended. While there is no simple way to set an appropriate level of funding, there are analytic techniques that can help policymakers to set a total funding level in the context of the needs of low-income households. Such a process would include the following steps:

Potential Solution(s) – The most significant problems occur when a program targets payment-troubled households **and** applies a restrictive definition for "payment-troubled" that requires the household to have a high level of arrears and/or a certain number of missed payments. PECO's CAP program, however, allows customers to be classified as "payment-troubled" even if they do not have a history of payment problems. Another approach has been implemented by the Washington State LIRAP program. In that program, funding is allocated to three different programs – LIRAP Heat, Emergency Share, and Senior Outreach. Each program explicitly targets one of the three groups – low-income/high-burden, vulnerable, and payment-troubled.

Issue #2 – Targeting higher benefits to high-burden households appears to penalize households that conserve energy.

Discussion - Some ratepayer-funded programs target high burden households. While this approach targets the lowest income households, it also targets the households with the highest usage. Some advocates are concerned that such a program discriminates against households that have conserved energy by lowering their thermostats and being careful about use of their appliances. Such households would have a lower energy burden and would receive a lower benefit under many benefit computation procedures.

Potential Solution – A fixed payment percent of income program allows those households that have restricted their usage to a level that is unhealthy or unsafe to make modest and appropriate increases in their usage level. Because of the subsidy computation procedures, the subsidy would automatically adjust to account for the higher usage.

Table IV-3 shows the targeted customers for each of the programs in the study. Some programs do not explicitly target any group, while others have program components that explicitly target each group (WA-LIRAP). Among the programs studied, it is most common for the programs to target low-income and/or high burden households, usually by implementing a Percent of Income program.

Table IV-3
Groups Targeted by Ratepayer-Funded Low-Income Programs for 2005

Program	Vulnerable Households	Low-income / High Burden Households	Payment Troubled Households
CA-CARE			
IN-CGCU	X	X	
IN-NIPSCO			X
IN-Vectren	X	X	
MD-EUSP	X		
ME-MPS		X	
ME-CMP		X	
ME-BHE		X	
MO-Laclede			
MO-ELIR			

Program	Vulnerable Households	Low-income / High Burden Households	Payment Troubled Households
NJ-USF		X	
NV-EAP		X	
OH-PIPP(E)		X	
OH-PIPP(G)		X	
OR-EWEB	X		
OR-OEAP			X
PA-PECO			X
PA-PGW			
WA-LIRAP	X	X	X
WA-HELP			
WI-WHEAP	X		

D. *Benefits*

There are series of inter-related issues in the development of benefit computation and distribution procedures for ratepayer-funded programs that present major challenges in program design and implementation. The challenges include:

- Design Consensus – It is difficult to obtain consensus on the best approach among interested parties.
- Implementation – Benefit determination procedures often require the development of complex information systems.
- Client Understanding – Benefit determination formulas are often difficult for clients to understand.

In this part of the report, we review some of the alternative approaches and identify the advantages and disadvantages of each.

Coordination with LIHEAP

Every State has a LIHEAP program. Since that program already has an infrastructure for delivering benefits to low-income households, many ratepayer-funded programs have chosen to either integrate or coordinate the delivery of benefits with LIHEAP. Several options are available, including:

- Full Integration – Ratepayer funds collected for low-income affordability programs can be transferred to the state LIHEAP office for distribution. For example, in Wisconsin, about $25.4 million in ratepayer funds were added to the WHEAP program, mainly to assist with electric bills for low-income households.

Program	State LIHEAP Office	Utility with Local Agency Intake	Utility with Utility Intake
MO-Laclede		X	
MO-ELIR			X
NJ-USF	X		
NV-EAP	X		
OH-PIPP(E)	X		
OH-PIPP(G)		X	X
OR-EWEB		X	
OR-OEAP	X		
PA-PECO			X
PA-PGW			X
WA-LIRAP		X	
WA-HELP		X	
WI-WHEAP	X		

Program Certification and Recertification

Policymakers are concerned with the fiscal integrity of ratepayer-funded low-income programs. As part of the focus on fiscal integrity, programs have certification procedures to determine whether a customer meets the eligibility requirements and recertification procedures to ensure that customers remain eligible after a certain period of time. However, while those procedures help to ensure the fiscal integrity of the program, they also are a barrier to program enrollment by eligible customers.

There tend to be three different levels of program eligibility certification.

- Comprehensive Certification – Most LIHEAP programs require clients to furnish a comprehensive set of certification documents that furnish information on the ages and employment status of all household members, all sources of income, participation in other assistance program, and proof of residency status.

- Income Certification – Some utility certification procedures are less complex and focus mainly on obtaining income verification documents. Since a utility will often only enroll the "customer of record" on an account, they are not as concerned about proof of residency.

- Self-Certification – The California CARE program has aggressively pursued enrollment of eligible customers. The CARE program asks customers to certify that their income is at or below a certain level, but does not require those customers to submit an income verification documents.

The advantage of comprehensive certification is that it provides the highest level of fiscal integrity for the program by establishing barriers to enrollment of ineligible customers.

However, barriers for ineligible customers are also barriers for eligible customers, since it is often time-consuming and difficult for customer to obtain all of the required documents.

Programs have used two procedures to improve customer enrollment rates.

- Presumptive Eligibility – Often, a program will use proof of certification for a similar low-income program (e.g., LIHEAP, Medicaid, Food Stamps) as verification that the household is eligible for the ratepayer-funded affordability program.
    - Certification – If this procedure is used during the certification process, it allows the customer to submit one document rather than many for program enrollment.
    - Recertification – If this procedure is used during the recertification process, it can eliminate the need for clients to submit any documents at all. By matching program participants to participant lists for other assistance programs, customers can be automatically recertified for the program.
- Automatic Enrollment – In some programs, participants of other energy assistance programs and/or other public assistance programs have been automatically enrolled by matching utility records to assistance program records and screening the assistance program records to determine eligibility. New Jersey enrolled more than 100,000 low-income customers in the USF program using this procedure.

Table IV-9 furnishes information on the program certification and recertification approach used by the programs included in our study. Most programs use a comprehensive certification process, including both income verification and other certification processes. Five of the 21 programs are operated by utilities and focus mainly on income verification. Only the California CARE program uses a self-certification procedure. Ten of the programs have either a joint application or use LIHEAP participation as evidence of eligibility for the program. New Jersey used automatic enrollment in its original program, but is not currently using that procedure. The Ohio Electric PIPP, PECO's CAP program, and PGW's CRP program automatically recertify active participants who enrolled in LIHEAP.

Table IV-10
Program Certification and Recertification for Ratepayer-Funded Programs

Program	Complete Certification	Income Verification	Self-Certification	Program Uses Presumptive Eligibility or Joint Application	Program Uses Automatic Enrollment
CA-CARE			X		
IN-CGCU	X			X	
IN-NIPSCO		X			
IN-Vectren	X			X	
MD-EUSP	X			X	

B. Affordability Program Evaluation Reports Reviewed

Ten independent affordability evaluations were reviewed for this report. Table V-1 lists the states, programs, reports, authors, report dates, and program years studied for each of these reports. All of the evaluations were reported between 2003 and 2006, and cover 2001 through 2005 program participants.

Table V-1
Affordability Evaluations

State	Program	Report Title	Author	Report Date	Program Year Studied
IN	NIPSCO Winter Warmth	Impact Evaluation of NIPSCO Winter Warmth Program	Roger Colton	08/05	CY 2005
MD	Electric Universal Service Program	Electric Universal Service Program Evaluation	PA Government Services	10/06	PY 2005
MO	Experimental Low-Income Rate	The Impact of Missouri Gas Energy's Experimental Low-Income Rate (ELIR) On Utility Bill Payments by Low-Income Customers	Roger Colton	10/03	2002-2003
NV	NV Fund for Energy Assistance and Conservation	State Fiscal Year 2005 Evaluation of the NRS 702 Energy Assistance Program and Weatherization Assistance Program	H. Gil Peach & Associates	05/06	SFY 2005
NJ	Universal Service Program	Impact Evaluation and Concurrent Process Evaluation of the New Jersey Universal Service Fund	APPRISE	04/06	FY 2005
OR	Energy Assistance Program	Oregon Energy Assistance Program Evaluation	Quantec	01/03	2001-2002
OR	Eugene Water and Electric Board - USP	2002 Low-Income Assistance Programs Evaluation	Quantec	08/03	CY 2002
PA	PECO Customer Assistance Program	PECO Energy Universal Services Program Final Evaluation Report	APPRISE	04/06	CY 2003
PA	PGW Customer Responsibility Program	PGW Customer Responsibility Program Final Evaluation Report	APPRISE	02/06	CY 2003
WI	Wisconsin Home Energy Assistance Program	Year 3 Low-Income Program Evaluation Report	PA Government Services	10/04	FFY 2004

C. Affordability Program Targeting

The needs analysis conducted in this study showed that there are over 7 million households in the U.S. with an energy burden above 15 percent. Despite the over $4.5 billion in Federal and ratepayer utility assistance program funding, there are not enough funds to meet the full need for energy assistance. Therefore, it is important that programs target

resources where they can provide the greatest benefits. Table V-2 examines information from affordability evaluations on how program benefits have been targeted.

Table V-2
Characteristics of Households Served by Affordability Programs

Program	% of Eligible Served	Poverty Level		Children	Elderly	Energy Burden	
		FPL	% of Participants				
MD: EUSP	33%			25%	33%	25% total burden 16% electric burden	
NJ: USF	45%	<=100%	49%	13%	37%	Electric burden: <10%: 66% 10-15%: 15% >15%: 19%	Gas burden: <10%: 45% 10-15%: 23% >15%: 32%
		101-150%	32%				
		>150%	19%				
PA: PECO CAP	45%	<=100%	55%	56%	20%	Combination: 16.2% Electric only: 11.0%	
		101-150%	29%				
		>150%	7%				
PA: PGW CRP	30%	<=100%	72%	27%	8%*	15.5% gas burden	
		101-150%	26%				
WI: WHEAP		<75%	50%			20% total burden	

*PGW has a grandfathered senior discount program. Many of their seniors participate in this program, rather than in the CRP.

Key findings include:

- *Percent of eligible population served:* Evaluation data showed that only one third to less than one half of the eligible households are served by these programs. The NJ USF program serves a high proportion of households because of the linkage with LIHEAP and other programs; all LIHEAP and Food Stamp program participants are automatically enrolled in the NJ USF program. PECO's CAP manages to also serve 45 percent of the income-eligible households, partially due to the fact that the program does not restrict benefits to households with an energy burden above a certain level. While the PGW CRP serves 30 percent of the income-eligible population, program participation continues to increase steadily, despite the longevity of the program. PGW also has a separate program for elderly low-income households. It appears that many low-income elderly households prefer the senior discount to the CRP.

- *Poverty Level:* Analysis of the poverty level of program participants showed that most programs are targeting those who have the lowest income level. By comparison, because the NJ USF uses auto-enrollment for all LIHEAP recipients, and does not limit the program to those who are behind in their utility bills, they have a larger share of participants with income above 100% of the FPL than do the other programs.

- *Elderly Participants*: In most states elderly households make up approximately 30 percent of the low-income households. However, in some of the programs shown in this table, the elderly represent a much smaller percentage of the population served. Seniors represented 37 percent of the NJ USF participants, as this program originally provided automatic enrollment for all seniors who participated in the Lifeline program, a utility discount program for low-income seniors in NJ. However, at this time, automatic screening of Lifeline clients has been discontinued. The NJ USF evaluation estimated

that in the absence of the Lifeline automatic enrollment, the participation rate by elderly households would have been about half of the rate for the average eligible household. Elderly households represent only eight percent of participants in the PGW CRP program. However, PGW has another program (that no longer is enrolling new households) for elderly households called the Senior Discount, and approximately 65,000 elderly households participated in this program in 2004.

- *Energy Burden:* The table shows that the programs are serving customers with high average energy burdens. Average total burdens range from 16 percent for the PECO CAP to 25 percent for the Maryland EUSP. The NJ program serves some of the lower burden households since the program enrolls all LIHEAP households with net electric or gas burden over three percent of income.

D. Affordability Program Retention and Recertification

Table V-3 examines program retention and recertification rates. Some of the programs studied remove customers from the program when they do not pay their bills. Others do not remove customers from the program. Most of the programs require customers to verify their program eligibility every year or every other year if they participate in LIHEAP. Table V-3 shows that recertification is a challenge for these programs. While most customers remain in need for program assistance, only 40 to 65 percent reenroll or recertify.

Table V-3
Affordability Program Retention and Recertification

Program	Retention Rate	Recertification Rate
MD – EUSP	100% (no removal)	65% reapplied
NJ – USF	100% (no removal)	44% reenrolled
PA – PECO CAP	96% remain for 12 months	
PA – PGW CRP	63% remain for 12 months	41% recertified[1]

[1]Some program participants were not required to recertify because they received LIHEAP.

E. Affordability Program Customer Survey Findings

Table V-4 examines findings from surveys of affordability program participants. This table shows that despite the benefits provided by the programs, the majority of participants reported that they needed additional assistance to pay their utility bills. However, pre and postprogram questions found that the programs had a large impact on the ability of customers to pay their energy bills.

The surveys also showed that a significant percentage of participants, ranging from seven to 17 percent, continued to use unsafe heating methods such as the kitchen oven or stove. This may be due to heating systems that are not functioning properly or homes that are in poor condition. The 2005 National Energy Assistance survey found that 27 percent of respondents used their kitchen oven or stove to provide heat. This is additional evidence

- *Subsidy:* Average bill subsidies ranged from $200 to over $650. The highest subsidy programs were the PGW CRP, which limited gas burden to eight, nine, or ten percent of income, but had no limit on the program subsidy; and the NJ USF, which limited gas and electric burden to 3 percent each, but capped the benefit amount at $1800.

Table V-6 displays the impact of the program on payments.

Table V-6
Payments

Program	# Payments	Cash Payments	Assistance Payments	Total Payments
MD – EUSP				Pre: $1022 Post: $790 Gross Δ: -$232* Net Δ: -$194
MO – ELIR	No improvement seen in number of payments made.			
NJ – USF		Post: $705	Post: $267	Post: $1,602
PA – PECO CAP	Pre: 8.4 Post: 8.2 Gross Δ: --0.2** Net Δ: -0.2**	Pre: $948 Post: $716 Gross Δ: -$232** Net Δ: -$241**	Pre: $46 Post: $51 Gross Δ: $5** Net Δ: -$2**	Pre: $994 Post: $768 Gross Δ: -$226** Net Δ: -$241**
PA – PGW CRP[1]	Pre: 6.7 Post: 8.1 Gross Δ: 1.4** Net Δ: 1.6**	Pre: $711 Post: $798 Gross Δ: $88** Net Δ: -$26**	Pre: $161 Post: $22 Gross Δ: -$139** Net Δ: -$164**	Pre: $872 Post: $821 Gross Δ: -$51** Net Δ: -$190**
WI – (WHEAP)	In the 6 months prior to WHEAP payment, on average 56% of the WHEAP participants sent a payment each month, compared to 41% in the six months following WHEAP payment.			

**Statistically significant at the 99% level. *Statistically significant at the 95% level.

The findings from the review of evaluations include:

- *Payment regularity:* Affordability programs aim to improve the ability of customers to afford their energy bills and aid in regular bill payment patterns. Results of the evaluations studied show that few of the programs result in improved payment regularity. This may be related to the fact that most of the programs studied do not provide an equal monthly bill, and therefore do not assist customers in establishing regular bill payment patterns. [156] The one program in this study that showed a statistically significant increase in bill payment regularity, the PGW CRP, provided an equal monthly payment plan. Under this gas subsidy program customers often receive a negative subsidy in the summer months to reach their monthly constant percentage of

[156] Customer surveys conducted as part of affordability program evaluations showed that equal payment plans are a highly valued component of the program. In the PGW evaluation 30 percent of customers cited equal monthly payments as a benefit of the program, compared to 40 percent who cited lower energy bills. Note, this program provided an average annual subsidy of $660.

income payment bill. Another evaluation[157], not included in this review, of PG Energy's affordability plan, found that the average number of customer payments increased from six payments in the year prior to enrollment to ten payments in the year after enrollment. This program also provides an equal monthly payment plan.

- *Cash payments:* Many of the programs studied did not provide an analysis of the amount of cash payments made. The PGW CRP showed a statistically significant gross increase in the amount of cash payments made by program participants compared to the year prior to program enrollment. This may be related to the equal monthly payments and the establishment of a regular bill payment pattern.

  Table V-7 below provides results from two other evaluations, not included in this review. Both programs have an equal monthly payment plan, and both show statistically significant increases in the amount of cash payments made after the participants enrolled in the program.

Table V-7
Cash Payment Impacts

	Pre Enrollment Cash Payments	Post Enrollment Cash Payments	Gross Change	Net Change
PG Energy	$773	$1022	$249**	$154**
TW Phillips[158]	$710	$892	$182**	$65**

**Statistically significant at the 99% level.

- *Assistance Payments:* Ratepayer assistance programs can sometimes reduce the amount of LIHEAP benefits credited to the utility, because of a decreased need for this assistance or because of a lack of customer incentive due to the way the benefit is credited. Some programs credit the LIHEAP benefit to the customer's payment responsibility, and some credit it to cover the ratepayer subsidy. The NJ USF is tied to the LIHEAP application. Because of this integration, these program participants received the highest average amount of assistance payments. Other programs may increase the amount of LIHEAP funding received by program participants if they can integrate the applications in this manner.

- *Total Payments:* All of the programs studied showed a reduction in total payments as compared to the pre-program year. This is partially due to the reduction in assistance payments and may also be due to a program bill that is less than the pre-program payment. One of the common goals of the affordability programs is to enable customers to maintain consistent utility bill payment practices. As a result of providing more affordable bills, customers may be more likely to make regular bill payments, and increase the total amount of payments that they make. Detailed analysis of the PECO CAP showed that the decline in total payments was likely related to the structure of this program benefit, which required most customers to pay less on the program than they had paid in the year prior to enrollment.

[157] PG Energy, Unviersal Services & Energy Conservation Programs Evaluation Final Report, August 2005, APPRISE Incorporated.
[158] T.W. Phillips Energy Help Fund Program Evaluation Final Report, November 2004, APPRISE Incorporated.

Table V-8 examines the impact of the affordability programs on bill coverage.

Table V-8
Bill Coverage

	Cash Coverage	Total Coverage	Payment Compliance
MD – EUSP		Pre: 84% Post: 73% Gross Δ: -11%* Net Δ:-7%	
MO – ELIR			27% of participants carry arrears in any given month, compared to 52% of the comparison group.
NV –Fund for Energy Assistance and Conservation		Pre: 56% Post: 74%	
NJ – USF	Post: 68%	Post: 96%	100% +: 44% 90-<100%: 30%
PA – PECO CAP	Pre: 80% Post: 81% Gross Δ: 0% Net Δ: 4%**	Pre: 85% Post: 89% Gross Δ: 4%** Net Δ: 6%**	100% +: 36% 90-<100%: 19%
PA – PGW CRP	Pre: 57% Post: 82% Gross Δ: 25%** Net Δ: 30%**	Pre: 71% Post: 84% Gross Δ: 13%** Net Δ: 19%**	100% +: 40% 90-<100%: 15%
WI –WHEAP		WHEAP participants moved from an average of paying 84% of their bill to 81% of their bill in the 6 months after WHEAP payment.	

**Statistically significant at the 99% level. *Statistically significant at the 95% level.

The findings from the review of the program evaluations include:

- *Cash Coverage Rate:* Cash coverage rates for program participants are still quite low. Program participants need LIHEAP and other assistance to meet bill payment obligations even after receiving ratepayer-funded program assistance.

- *Total Coverage Rate:* Average total coverage rates usually improved after program enrollment, but still fell short of covering the total bill. The NJ USF program achieved a post program total coverage rate of 96 percent. This level of success was achieved because of the integration with LIHEAP, the aggressive program structure, and the fact that the program did not target customers who were already behind on their bills, but rather served all LIHEAP participants.

  The average total coverage rate for the Maryland EUSP participants declined from 84 percent in the year prior to participation to 73 percent in the year after participation. However, this finding could be attributable to the way that the analysis results are presented. A large percentage of program participants are served by a utility that provides both electric and gas service. A decision was made whereby all customer payments would first be credited to cover the full gas portion of the bill, and the remainder would be credited to the electric portion of the bill. If the analysis shown in

the report examines only the electric part of the bill and payments credited to the electric portion of the bill, even for this joint service utility, this result would be expected. A smaller percentage of the electric bill would appear to be covered by the customer, as all payments are first credited to the gas portion of the bill. An analysis of the total coverage rate of both the electric and gas bill or and/or a separate analysis of this utility from the other utilities is needed to fully understand changes in customers' bill payment.

- *Payment Compliance:* Payment compliance statistics show that more than half of the customers do not meet their full bill payment obligations after enrolling in the affordability programs. NJ USF participants are most likely to pay their bills, with 44 percent paying 100 percent or more of their bills and 30 percent paying 90 to 100 percent of their bills.

Table V-9 displays statistics on arrearage forgiveness and customer balance.

Table V-9
Shortfall, Arrearage Forgiveness, and Balance

	Arrearage Forgiveness	Balance
MO – ELIR		Of those who have arrears, the average amount of arrears is $104 for participants and $173 for the comparison group. 80% of participants achieved a $0 balance, compared to 60% of the comparison group.
NV – Fund for Energy Assistance and Conservation	In FY 2005, 5447 households received arrearage forgiveness, averaging $403.	
NJ – USF	39% participated in arrearage forgiveness component of the program.	Electric < $60 Pre: 72% Post: 85% Gross Δ: 13% Gas <$60 Pre: 78% Post: 82% Gross Δ: 4% PSE&G: <$60 Pre: 57% Post: 73% Gross Δ: 16%
OR – Energy Assistance Program		Modeled: $340 reduction in arrears.
OR – E USP		Modeled: $251 reduction in arrearages due to program
PA – PECO CAP	68% received arrearage forgiveness, mean amount was $392	Pre: $573 Post: $326 Gross Δ: -248** Net Δ: -$374**
PA – PGW CRP	76% received arrearage forgiveness, mean amount was $182	Pre: $1539 Post: $1611 Gross Δ: 72** Net Δ: -$229**
WI –WHEAP		By the end of the 6th month following a WHEAP payment, participants accumulated 68% of their pre-HEAP payment arrearage.

**Statistically significant at the 99% level. *Statistically significant at the 95% level.

The findings from the review of program evaluations include:

- *Arrearage Forgiveness:* Because customers come into the program with arrears and do not pay their full bills, arrears would continue to grow on average if arrearage forgiveness was not provided. Program evaluations showed that significant percentages of the program participants received arrearage forgiveness, and the average amount ranged from $182 to $403.

- *Balance:* Most of the programs showed a reduction in customer balances, due to the program's arrearage forgiveness. However, these programs need to do a better job of working with customers to reduce balances, or the customers will continue to face challenges in maintaining utility service.

G. Impacts on Utility Collection Costs and Write-Offs

Some of the evaluations that were reviewed analyzed the impact of the affordability programs on collections actions and service terminations. These findings are summarized in Table V-10.

- *Collections actions and service terminations:* The programs studied showed that the affordability programs resulted in a reduced number of collections actions and service terminations in the year following program enrollment. However, the previous analysis showed that balance reductions were due to arrearage forgiveness and that customers were not paying their full bills. Therefore, it is important to study how customers are faring in the longer term and how programs can be more successful in enabling customers to meet their bill payment responsibilities on an ongoing basis.

- *Collections costs:* Despite the significant reduction in the number of collections actions and service terminations, the reduction in collection costs is small, averaging seven to sixteen dollars per participant. These reductions may cover part or all of the administrative costs of the program.

The evaluations are generally not able to assess whether programs are cost neutral. To measure cost neutrality, a program would have to measure the net cost of services for customers prior to enrollment (cost minus payments) compared to the net costs after program enrollment. Further, the analysis would require an experimental design where customers in similar situations were randomly assigned to test and control groups. Utility cost of service information is generally inadequate to measure true service delivery costs. Additionally, programs that we have researched have not employed an experimental design. Therefore, we have not found any evidence to either support of refute the hypothesis that programs can be cost neutral. However, based on their design, certain programs are unlikely to be cost neutral. If a program results in large reductions in payments by customers, it is unlikely to be cost neutral.

Table V-10
Program Impacts on Utility Costs

Program	Collection Actions	Service Terminations	Collection Costs
MO – ELIR	Collection letters Treatment: 6.4 Comparison: 29	Pre: 2.8% Post: 1.0%	$127 annual per participant average savings
NJ – USF			
OR – Energy Assistance Program			Average $7 per participant savings in collections costs and arrearage carrying costs.
OR – EUSP			Average $8 per participant savings in collections costs.
PA – PECO CAP	# of Actions Pre: 7.3 Post: 2.3 Gross Δ: -5.0** Net Δ: -5.4**	Percent shut off Pre: 4.1% Post: 1.5% Gross Δ: -2.5%** Net Δ: -2.1%**	Average $8 reduction in collection costs.
PA – PGW CRP	# of Actions Pre: 8.7 Post: 8.8 Gross Δ: 0.0 Net Δ: -1.4**	Percent shut off Pre: 15% Post: 4% Gross Δ: -10%** Net Δ: -12%**	Average $16 reduction in collection costs.

***Statistically significant at the 99% level. *Statistically significant at the 95% level.*

H. *Impacts on Energy Usage*

Some of the evaluations that were reviewed analyzed the impact of the affordability programs on energy usage. These findings are summarized in Table V-11. Energy affordability programs reduce the cost of using energy, and therefore program managers are concerned that they may result in increased energy usage. However, evaluation results in the table below show that that this is not an issue.[159] Program evaluations find small and insignificant increases in energy usage, or sometimes even declines in energy usage.

Table V-11
Program Impacts on Utility Costs

Program	Energy Usage
MO – ELIR	Treatment: 68 therms Comparison: 86 therms
NJ – USF	Gas Pre: 1,194 therms Post: 1,106 therms Gross Δ: -88 Electric Pre: 7,204 kWh Post: 7,179 kWh Gross Δ: -25

[159] One exception is where the discount is provided on electricity, and not on the heating fuel, so customers switch to using electric space heaters to reduce their total utility expenses.

Program	Energy Usage
OR – Energy Assistance Program	
OR – EUSP	
PA – PECO CAP	Electric non-heaters Pre: 7,258 kWh Post: 7,309 kWh Gross Δ: 51** Net Δ: 53
PA – PGW CRP	Pre: 1,184 ccf Post: 1,199 ccf Gross Δ: 15** Net Δ: 16**

**Statistically significant at the 99% level. *Statistically significant at the 95% level.

I. Affordability Program Evaluation Summary of Findings

Table V-11 summarizes some of the key findings from the evaluations that were studied. While all of the programs resulted in improved bill affordability and some programs resulted in increased bill payment compliance, all of the programs still have a majority of customers who do not meet their reduced bill payment obligations. The needs analysis showed that populations differ greatly in the states studied and therefore program design will need to take these population characteristics into account. However, the following general conclusions can be made with respect to these programs.

- *Targeting Benefits to Need* - Programs can improve their impact by providing benefits to customers that are related to the amount of assistance that they need. Indicators of need include arrearages, energy burden, and an unsafe or unhealthy home environment.

- *Facilitating Long-Term Participation* - Many customers continue to need energy assistance over time. Programs can improve affordability by facilitating reapplication or recertification and by allowing customers to continue to participate in the program, even after they have paid off their full arrearage.

- *Forgiveness of Preprogram Arrears* - Arrearage forgiveness is an important component of the program. However, the programs need to improve bill payment compliance. One potential method for improving payment compliance is to provide an arrearage forgiveness component that is tied to bill payment, and to educate customers about this requirement.

- *Integration with LIHEAP* - One of the reasons for the relative success of the NJ USF program was the integration with LIHEAP. Research has shown that there is a large affordability gap, and that the combination of LIHEAP and the ratepayer-funded program benefits may result in improved performance.

- *Equal Monthly Payments* - Customer surveys have shown that customers place great value on equal monthly payments. Comparison of the evaluation results, showing that PGW customers and participants in other programs with equal payments have more continuous and increased cash payments on the programs, provides further evidence that equal payments improve program performance.

The work that energy efficiency programs can perform in low-income homes depends not only on the program funding and measure guidelines, but the condition of the homes that are to be treated. In many cases, especially for the highest users, targeted homes are in such bad condition that significant repairs must be made prior to the implementation of energy efficiency services. To the extent possible, these homes should be referred to housing repair programs and then referred back to the energy efficiency program when the repairs are completed.

C. Eligibility and Targeting

While all programs set limitations on the income or poverty level for program participants, some programs also require that customers participate in energy affordability programs or have certain levels of energy usage.

- *Poverty Level* – Program specifications for poverty level range from 150 percent, the most common standard, to 225 percent. The CO-HEAP explicitly targets the working poor and only households with income above the state LIHEAP and WAP standard and below 225 percent of the poverty standard are eligible for the program. All of the other programs serve households with income below a certain level.

- *Participation in Affordability Program* – Programs sometimes require that households participate in the corresponding energy affordability program to receive energy efficiency services. Often the goal of this requirement is that program participation reduces the subsidy provided by ratepayers when energy usage declines. The extent to which the ratepayer subsidy is reduced depends on the structure of the affordability program. However, by restricting benefits to affordability program participants, the program may not serve high usage, high energy burden households who do not participate in the affordability program. Four of the 13 programs studied impose this restriction.

- *Energy Usage* – Programs that serve higher usage households usually result in higher savings. For this reason, programs sometimes restrict participation to households with energy usage above a certain level. The disadvantage of this approach is that it sometimes excludes households that have great need for the program. Some of these households may have usage that is low because of great effort made to conserve energy so that bills remain affordable. The 2005 NEA showed that one third of respondents kept their home at a temperature that they felt was unsafe or unhealthy because they did not have enough money for their energy bill in the past year. Table VI-3 shows that two of the 13 programs set energy usage requirements for program participation.

renters, expenditures per home are much lower for renters than they are for homeowners. An examination of the services received by OHIO EPP participants shows the same trend. Approximately half of the moderate and high-use baseload recipients are renters, but only 26 percent of the targeted energy efficiency service recipients, who receive shell measures as well as baseload measures, are renters.

- *Affordability Program Participants:* Efficiency programs often target customers who participate in affordability programs. Depending on the structure of the affordability program, such targeting can reduce the subsidy that is provided by ratepayers, further improve the affordability of energy for program participants, or provide a combination of the two benefits.

  The Ohio EPP and the PGW CWP both provide services exclusively to affordability program participations with the goal of reducing ratepayer subsidies. Because these programs are fixed payment programs, the customers' payments remain the same when usage is reduced, and the reduced costs of energy usage reduce the subsidy that ratepayers provide.

  The majority of PECO LIURP customers also participate in their affordability program. Because this is a discount program, the reduced costs that accrue due to a reduction in energy usage are shared between the customers and the ratepayers, at the same ratio as the part of the bill that the customers pay. For example, if customers pay 75 percent of the retail bill and receive a 25 percent discount, customers will receive 75 percent of the benefit when usage drops, and ratepayers will see their subsidy decline by 25 percent.

One of the most consistent findings from energy efficiency program evaluations is that customers with higher usage provide greater opportunities for savings, and therefore programs that target high usage yield higher savings and more cost-effective service delivery. As a result of this knowledge, programs are often designed to target the income-eligible customers with the highest usage or with usage above certain target levels. Some programs are specifically designed with specific tiers of service depending on the pre-treatment usage level. A rule-of-thumb that is often used is that electric customers should have annual baseload usage that is at least 6,000 to 8,000 kWh, and heating and/or cooling usage of at least 8,000 kWh. Gas usage that is targeted for service delivery is often 1,200 ccf.

Table VII-3 examines the pre-treatment usage of customers who participated in the evaluated programs. The table shows that most of the programs described in the table serve customers with average usage that exceeds these targets. One notable exception is the CA LIEE program that serves customers with an average electric usage of only 5,000 kWh and an average gas usage of only 400 therms. This is related to the profile of energy usage of these customers. The needs analysis section estimated that only 24 percent of CA households had baseload usage over 8,000 kWh and only 5 percent had gas usage of over 1,200 therms.

All of the other programs listed in the table have considerably higher pre-treatment electric and gas usage. One of the best targeted programs, the Ohio EPP, serves electric customers with average baseload usage of 13,500 for the high-use program, 6,500 for the

Best Practices:
Low-Income Rate Affordability Programs

Articulating and Applying Rating Criteria

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November 2007

proceeding through which to establish a uniform statewide program. Since 1999, a competitive retail market has not developed for residential customers in New Jersey.

3.1.2 Application of Best Practices Criteria

The New Jersey USF is one of the best designed and implemented utility rate affordability programs in the United States. The program is rated "exceptional" in ten of the 20 best-in-class criteria.

3.1.2.1 Criterion #1: Is the program reasonably open to all households in need.

The New Jersey program is reasonably open to all households in need. The program defines income eligibility at 175% of the Federal Poverty Level.[10] The program commits to serving all customers in need with no ceiling on participation rates. To the extent that participation increases, program funding will be expanded to meet that need.

The New Jersey USF leads the nation in its ease of program entry. Program enrollment may occur year-round. Households enrolling in the federal fuel assistance program (called the Low-Income Home Energy Assistance Program, LIHEAP) are automatically enrolled in the USF as well. While program participants must recertify their income annually, they may do so either in-person through local community-based organizations or by mail through the state USF administrator.

3.1.2.2 Criterion #2: Does the program recognize the multiple facets of energy affordability "need."

The New Jersey program recognizes the multiple facets of energy affordability "need." The program defines an affordable home energy bill as one that does not exceed 6% of household income for both natural gas and electricity (or for all electric homes). In those circumstances where customers use natural gas for heating, the affordable home energy burden is allocated equally between natural gas (3%) and electricity (3%).

The USF provides the opportunity for program participants to earn the forgiveness of preprogram arrears over a reasonable time period. The program provides a reasonable opportunity for participants to "cure" missed payments in order to earn their forgiveness.

One potential problem with the New Jersey USF is that it does not yet allocate federal fuel assistance benefits over multiple months. Instead, federal fuel assistance is applied against a customer account in a lump sum, thus creating bill credits on participant bills in

[10] The generally accepted measure of "being poor" in the United States today indexes a household's income to the "Federal Poverty Level" published each year by the U.S. Department of Health and Human Services (HHS). The Poverty Level looks at income in relation to household size. This measure recognizes that a three-person household with an annual income of $6,000 is, in fact, "poorer" than a two-person household with an annual income of $6,000. The federal government establishes a uniform "Poverty Level" for the 48 contiguous states. A household's "level of Poverty" refers to the ratio of that household's income to the Federal Poverty Level. For example, the year 2005 Poverty Level for a two-person household was $12,830. A two-person household with an income of $6,415 would thus be living at 50% of Poverty.

3.1.2.5 Criterion #5: Does the program provide for reasonable cost recovery?

New Jersey provides for stable, adequate funding of its USF program. Program budgets are estimated on an annual basis, with a proceeding before the state utility regulatory commission to determine the volumetric charge needed to generate those program dollars. Cost recovery is obtained from all customer classes, both to recognize the benefits provided to the utility as a whole along with its various customer classes, and to recognize the societal commitment to support universal service for essential home energy needs. The New Jersey USF, however, does not account for the cost savings generated by the program. To this extent, participating utilities receive windfall benefits on an inter-rate-case basis.[14]

3.2 Program #2: The Columbia Gas Customer Assistance Program (CAP) (Pennsylvania)

The Columbia Gas Company (Pennsylvania) Customer Assistance Program (CAP) is one of the oldest low-income rate affordability programs in Pennsylvania. Begun as a pilot program in 1990, the program was seen by the Pennsylvania utility regulatory commission as a way "to address realistically these customers' problems and to stop repeating a wasteful cycle of consecutive, unrealistic payment agreements that cannot be kept, despite the best of intentions, followed by service termination, then restoration, and then more unrealistic agreements. . ."

3.2.1 An Outline of the Program

The Columbia Gas CAP is one of the biggest natural gas home energy affordability programs in the state of Pennsylvania.[15] As of December 31, 2006, Columbia Gas served more than 24,000 low-income customers, roughly 40% of its confirmed low-income eligible population.[16] In 2006, Columbia Gas provided bill credits averaging $965 to participating customers. Customers with preprogram arrears received an additional $72 in arrearage credits each year.

3.2.1.1 Program Description

The Columbia Gas CAP is a percentage of income-based program. Bill credits are provided to CAP participants so as to reduce annual natural gas bills to an affordable percentage of income. In fact, Columbia Gas offers three primary payment options to participating customers. Customers may pay the lowest of a bill based on a percentage of income payment (either 7% or 9% depending on income) or a flat rate of 50% of their

[14] At the time of a base rate case, the determination of revenue requirement will capture any cost reductions generated by a universal service program and pass those cost reductions on to ratepayers on a going forward basis through a reduced revenue deficiency.

[15] Two natural gas utilities serving the Philadelphia metropolitan area have more participants, PECO and the Philadelphia Gas Works.

[16] The participation rate would be much lower if the rate reflected the estimated number of eligible customers rather than the number of confirmed low-income customers.

3.2.1.4 Program Background

The Pennsylvania Office of Consumer Advocate (OCA) proposed that Columbia Gas Company adopt an "Energy Assurance Program" (EAP) as part of Columbia's 1990 rate case. According to the OCA, the issue was one of collection efficiency. "The issue in this proceeding," OCA said, "is not to devise a social response to the broad inability to pay problems of low-income households. The issue is one of what is the most cost-effective means of collection. It is the same issue as whether a utility should pursue new central station capacity, cogeneration or conservation. . .The requirement that utilities provide least-cost service should govern utility collection activities too." The OCA continued: "the issue is this: how can Columbia Gas most effectively and least expensively collect as much as possible from households [that] cannot afford to pay?"

Columbia Gas did not completely oppose the OCA's proposal given its experience with the Ohio Percentage of Income Payment Plan (PIPP). "Columbia reiterated its policy position that it is not philosophically opposed to percentage of income payment plans, provided that the plan fully recognizes the costs of such a program and provides for the timely and full recovery of such costs."

The Pennsylvania utility regulatory commission ordered the company to implement a 1,000 participant pilot project. The Company expanded its program after the Pennsylvania legislature mandated continuation of such programs as part of the move to retail choice. After filing its initial comprehensive universal service plan in 1999, and obtaining temporary funding for that plan, the company received a permanent funding stream in 2003 through its distribution charge. The funding is adjusted on a quarterly basis as part of the quarterly gas cost adjustment proceeding.

The Columbia Gas CAP operates in a retail choice environment. Indeed, Columbia Gas sought to aggregate the participants in its CAP in Pennsylvania. Columbia Gas began its aggregation program in 1997. The CAP customers were grouped together for the purpose of obtaining lower cost gas from a marketer/supplier. Columbia served as the appointed purchasing agent for CAP customers. The aggregation program, however, no longer generates savings from CAP participants. Columbia Gas reported in 2004 that no marketer was participating in its CAP aggregation, a situation that continues through today. Marketers could not procure gas at prices below that which Columbia Gas could for its residential ratepayers generally.

3.2.2 Application of Best Practices Criteria

The Columbia Gas CAP is one of Pennsylvania's best-designed, and most mature, low-income rate affordability programs. The program is rated "exceptional" in nine of the 20 best-in-class criteria.

3.2.2.1 Criterion #1: Is the program reasonably open to all households in need.

The Columbia Gas CAP is reasonably open to all households in need. Columbia Gas defines income eligibility as 150% of the Federal Poverty Level. The Company limits its program participation to payment-troubled customers. Payment-troubled refers to any customer that has failed a payment plan within the prior 12 months or has been identified as payment-troubled through cross-referral or credit scoring. Any customer that self-declares himself or herself as a payment-troubled customer in a contact with the company's call center is referred to dedicated universal service staff to determine the customer's eligibility for CAP. CAP enrollment is open year-round. The company places no ceiling on CAP enrollment.

Columbia Gas requires customers to recertify their program eligibility annually. However, customers participating in the federal fuel assistance program or in some other Columbia Gas universal service program are exempted from recertification. In addition, elderly and disabled program participants are allowed biannual recertification.

3.2.2.2 Criterion #2: Does the program recognize the multiple facets of energy affordability "need."

The Columbia Gas CAP provides exceptional rate affordability assistance. The program limits customer bill payments for current usage to the *lesser* of either 7% or 9% of income (based on Poverty Level) or a designated percentage of the customer's budget bill for current usage. A customer, however, must pay at least the average of what he or she has paid in the past twelve months immediately preceding program enrollment (for customers on the Columbia Gas system for at least six months).

The company provides arrearage forgiveness for customers who maintain current bill payments and make a $5 copayment toward their preprogram arrears. One weakness in the Columbia Gas program, however, is its requirement that preprogram arrearage forgiveness be spread over a six year period, longer than that which is reasonable.

High usage customers are given priority for treatment by the company's low-income usage reduction program. Customers are enrolled in all available weatherization programs at the same time they are enrolled in the CAP.

3.2.2.3 Criterion #3: Does the program efficiently use program funding?

Columbia Gas appropriately matches benefit payments to customer needs. Individual determinations are made of the most affordable bill payment option available to the customer, so long as the customer pays at least as much as he or she paid in the year prior to entering the program. While matching benefit payments to customer-specific needs, the company does impose both minimum customer payment requirements ($25) and benefit ceilings.

3.5.1.4 Program Background

The Indiana programs were adopted at the behest of the respective utilities. Unlike many other states, the Indiana programs did not arise out of a move to a retail choice environment. According to Niel Ellerbrook, Chairman of the Board and Chief Executive Officer of Vectren Utility Holdings, the parent company of Vectren Energy Delivery, the primary driving factor behind his utility's low-income proposal involved "the dramatic rise in natural gas prices and the resulting impact on customers and the economy." According to Ellerbrook, "the impact of significantly higher energy costs creates especially acute problems for low-income customers." The company CEO justified the program by stating:

> Given the magnitude of the situation, no single solution has been found to ensure that low income customers can obtain and retain utility service that is necessary to sustain life. For Vectren, the Universal Service Fund has been part of the package of efforts designed to help those customers in need of assistance. There is a cost to serve customers who need heat but are unable to pay the full cost of service for any number of reasons, including job loss, cost of medicine, or the number of their dependents. Like other real costs to provide service to our entire customer base, this cost must be recognized and addressed in a constructive manner to assure that people have service.

Ellerbrook concluded by noting that the universal service program "provides an answer in conjunction with LIHEAP and other available programs, by identifying customers with true need, determining in a consistent and accepted manner how much they can pay for service, and providing them with more affordable bills that better match their ability to pay."

As can be seen, rather than being driven by a move to retail choice, the Indiana natural gas low-income programs have been driven by spiraling natural gas commodity prices and the adverse impacts those prices have had not only on low-income customers but also, by extension, on the utilities serving those low-income customers (and their remaining ratepayers).

3.5.2 Application of Best Practices Criteria

The Universal Service Program (USP) operated by Citizens Gas & Coke Utility and by Vectren Energy Delivery is one of the nation's best examples of a "tiered rate discount" program that ties tariffed discounts for low-income customers to a determination of affordable home natural gas bills. The Indiana USPs are rated "exceptional" in five of the 20 best-in-class criteria.

3.7.2.5 Criterion #5: Does the program provide for reasonable cost recovery?

The greatest weakness in the New Hampshire EAP involves the limitations imposed by statutorily imposed budget constraints. The EAP is funded through a statewide System Benefits Charge of 3.0 mils per kWh, of which 1.2 mils is directed toward low-income rate affordability assistance. The SBC has not been increased since the program's inception. The SBC is not indexed to fuel prices or to program participation. Indeed, a statutorily-mandated increase in program eligibility levels resulted in substantial decreases in per-participant benefits as the higher participation levels were met with a fixed program budget.[22]

Conversely, the fixed SBC charge of 1.2 mils per kWh provides a stable annual funding base for EAP program operation. Program administrators need not address the inefficiency of not knowing whether funding will exist in any given year, or what that level of funding might be.

The funding of New Hampshire's EAP is assisted by the requirement that program funding be allocated to all retail customers. In this fashion, the burden of supporting the low-income program does not become too great for any given customer class.

3.8 *Program #8: The Maryland Electric Universal Service Program (EUSP)*

Maryland's Electric Universal Service Program (EUSP) is a creature of statute. Mandated by the statute directing the state to move to retail choice, the EUSP was statutorily established to deliver bill payment assistance, low-income weatherization, and arrearage retirement to low-income customers. The statute generally provides that the Maryland state utility regulatory commission: (1) shall order a universal service program to be made available on a statewide basis to benefit low-income customers; (2) shall establish a universal service program; and (3) shall have oversight responsibility for the universal service program.

In contrast, the state Department of Human Resources, which is the state agency that administers the federal Low-Income Home Energy Assistance Program (LIHEAP) (also known as the Maryland Energy Assistance Program—MEAP), was statutorily charged with the responsibility for administering the EUSP along with disbursing EUSP funds (with oversight by the commission).

3.8.1 An Outline of the Program

The Maryland EUSP consists of both a rate discount for bills for current usage and an arrearage forgiveness program. The EUSP is available to electric customers who have

[22] The primary benefit reduction was the elimination of heating benefits. The EAP determined that program participants would need to rely on the federal fuel assistance program for heating benefits with EAP benefits limited to non-heating electric bills.

bill so as to reduce that bill to an affordable amount. The EUSP benefit, however, is an external benefit, paid as a direct vendor payment to the program participant's electric company. It is not part of the rate structure of the company. It is simply viewed as an additional payment on the customer's account, albeit a payment from non-customer funds.

3.8.1.3 Program Funding

The Maryland EUSP is supported by a cost recovery mechanism that is uniform statewide. The statute provided not only a fixed program budget for the first three years of the EUSP, but that a fixed contribution toward that budget be obtained from each customer class. The residential charge was set at a uniform, statewide monthly fee, of $4.97 to $5.00 annually ($0.41 to $0.42 monthly). A multi-step charge was established for commercial and industrial customers. The commission explained, however, that it sought:

> . . .a funding methodology that results in sets of uniform Statewide fees for commercial and industrial customers that apply irrespective of the service territory in which the customers are located. The use of Statewide fees should not preclude the differentiation of charges by customer size or electric usage, as long as the methodology proposed includes an appropriate cap. . .The commission's primary interest in a proposal of this type is (i) to have flat fees that do not vary each month, thereby avoiding customer confusion, and (ii) to ensure that similarly-situated customer that happen to be located in different service territories pay the same charge, thereby avoiding any questions of competitive advantage.[24]

The statute prohibited collecting the universal service charges on a per kilowatthour basis. In adopting a fixed monthly fee, the commission agreed with the argument by the commercial and industrial representatives that the universal service charge "is similar to a utility 'customer charge,' which is traditionally designed and intended to recover a cost that bears no relationship to a customer's consumption." The Maryland commission now considers a proposed EUSP budget each year and annually sets the appropriate fixed monthly fees to generate the necessary funds.

3.8.1.4 Program Background

The Maryland Electric Universal Service Program (EUSP) was statutorily created as part of that state's move to retail choice in the electric industry. The concern by state legislators was not simply that electricity bills were unaffordable to low-income customers, but also that the move to retail choice would create a market structure under which low-income customers would not be actively solicited by competitive electric service providers.[25]

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[24] Order 75401, at 5.

[25] As it turns out, *no* residential customers are being actively solicited by competitive suppliers in Maryland.

Ultimately, a competitive electric industry did not develop for residential customers, with customers choosing not to abandon their electric distribution utilities, and suppliers choosing not to market to residential customers. Today, in 2007, as price caps continue to be removed from market-based prices offered to residential customers, Maryland consumers are experiencing substantial spikes (60% or more) in their electric prices. In these circumstances, EUSP has become both more important and more stressed, as the need for affordability assistance grows but the burden of meeting that need outstrips the ability to meet that burden.

3.8.2 Application of Best Practices Criteria

The Maryland Electric Universal Service Program (EUSP) is one of the nation's best examples of an SBC-funded external benefit rate affordability program. Adopted as part of the legislation directing Maryland to move to a retail choice electric environment, the EUSP has been implemented to pursue affordability targets within strict budget constraints. The Maryland EUSP is rated "exceptional" in nine of the 20 best-in-class criteria.

3.8.2.1 Criterion #1: Is the program reasonably open to all households in need.

The Maryland EUSP is reasonably open to all households in need. Program eligibility is set at 175% of the Federal Poverty Level. Program enrollment is open year-round. There is no ceiling on program enrollment.[26]

The population to be served by EUSP is supported by extensive empirical analysis. An annual needs assessment is filed with the program operating plan each year. In addition, the program completes an annual report examining the extent to which the EUSP met the expected need within six months after the close of each fiscal year.

EUSP provides reasonable ease of entry into the program. No non-income eligibility criteria are imposed through the EUSP. Unlike the corresponding federal fuel assistance program, however, the EUSP *does* require that the program applicant be limited to the named utility customer (the federal fuel assistance program requires the applicant to be part of the household, but the applicant need not be the named customer). EUSP entry occurs primarily, though not exclusively, through the federal fuel assistance program. The two programs use a unified program application. Ease of entry into EUSP through the federal fuel assistance program is impeded somewhat by the fact that the two programs are on different fiscal years.[27]

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[26] In theory, the fixed nature of the EUSP budget would create a ceiling on program participation. The program administrator, however, reports that it consciously sets benefits at a level to ensure that its budget authorization will not be exhausted, so as to ensure that all applicants, at whatever point in the program year, will be assured of receiving program benefits.

[27] As a state program, EUSP is on the state fiscal year (July through June). The federal fuel assistance program is on the federal fiscal year (October through September). A household applying for EUSP in July, August or September, in other words, may *not* also receive federal energy assistance benefits until October, the beginning of the new federal fiscal year.

EUSP statute mandates that program costs be collected from all customers, the statute prohibits that such cost recovery be accomplished on a volumetric basis. The EUSP program administrator submits a proposed annual budget to the Maryland utility regulatory commission each year. Based on that budget submission, the utility regulatory commission establishes the fixed customer charge needed to generate the program budget.

The Maryland EUSP suffers from the lack of any indexing of the program budget to increases in energy prices or program participation. Indeed, increasing prices often drive increasing participation. Unlike programs with reconcilable rate riders through which to collect programs costs, Maryland's EUSP does not have the flexibility to increase its budget to reflect increasing electric prices without legislative approval.

Given the expiration of price caps on electricity prices in Maryland in recent years, and the corresponding spike in electric prices –electric prices have increased by 70% or more in some electric service territories—the failure to adjust the program budget to reflect these changes in the underlying environment has resulted in decreased benefits and increasing hardships on Maryland's low-income customers.

3.9 Program #9: The Electricité de France (EDF) "Social Tariff" (France)

Electricité de France (EDF) serves nearly 28 million customers in that country. According to the company, as a "responsible industrialist," it seeks to "reconcile its management constraints and therefore its constraints related to the strict collection of its accounts receivable with its public service obligations." EDF actions are taken within the context of a legally recognized "right to electricity."

French law first articulated a "right to electricity" in 1998 as the country adopted statutes providing for the "modernization and development" of the electric power industry. In October 2005, EDF signed an agreement that specified certain actions the company would take to promote this right to electricity for "customers with precarious situations." The "right to electricity" is defined to mean "guaranteeing temporary maintenance of the supply of electricity for people faced with precarious situations and contributing to the Housing Solidarity Fund."

3.9.1 An Outline of the Program

The EDF low-income electric affordability program consists of four distinct components:

3.9.1.1 Case Management

EDF seeks to prevent electricity debt through a network of what it calls "solidarity correspondents," "solidarity representatives" and "social mediators." This network of specially-trained company staff provides case management services to customers having

intentions, followed by service termination, then restoration, and then more unrealistic agreements. . ."

Adopted at the behest of the respective utilities, the Indiana low-income rate affordability programs were based on a similar finding. According to Niel Ellerbrook, Chairman of the Board and Chief Executive Office of Vectren Utility Holdings, the parent company of Vectren Energy Delivery, the primary driving factor behind his utility's low-income proposal involved "the dramatic rise in natural gas prices and the resulting impact on customers and the economy." According to Ellerbrook, "There is a cost to serve customers who need heat but are unable to pay the full cost of service for any number of reasons, including job loss, cost of medicine, or the number of their dependents. Like other real costs to provide service to our entire customer base, this cost must be recognized and addressed in a constructive manner to assure that people have service." He concluded by noting that "[T]he USF program provides an answer in conjunction with LIHEAP and other available programs, by identifying customers with true need, determining in a consistent and accepted manner how much they can pay for service, and providing them with more affordable bills that better match their ability to pay."

Lesson #7:

A best-in-class rate affordability program represents a more cost-effective approach for dealing with issues of customer inability to pay than are traditional collection methods.

4.2 *Common Elements of a Best Practice Rate Affordability Program.*

An effective low-income rate affordability program is designed to address the multi-levels of need created by the inability of certain customers to pay for their essential home energy service. Not only should a program address the affordability of bills for current usage, but the program should also address past-due arrears. Not only should a program address the annual unaffordability of bills, but the program should also address the seasonal unaffordability of bills. Not only should a program address the payment of current bills, but the program should also address the consumption underlying those current bills.

To perform these multiple tasks requires a partnership between the utility, community-based organizations, government, and the low-income customers themselves.

4.2.1 The Necessary Components of a Rate Affordability Program

A best-in-class low-income rate affordability program has five necessary components to it. A low-income rate affordability program should:

- Reduce bills for current usage to an affordable percentage of income. The program should recognize the essential role played by home energy burdens in defining home energy affordability.

- Retire pre-existing arrears within a reasonable time period, without raising the overall monthly asked-to-pay amount to an unaffordable level.

- Protect against unexpected monthly bill volatility associated with changes in price and/or weather through facilitating or requiring entry into levelized budget billing plans.

- Promote the efficient use of energy, both through investments in usage reduction measures for the housing unit and the preservation of conservation incentives within the affordable rate structure.[36]

- Preserve funding to address crisis situations caused by the fragility of income experienced by poverty-level households.

Lesson #8:

A best-in-class rate affordability program recognizes that low-income home energy affordability consists of more than helping a customer to be able to pay their bill for current usage.

4.2.2 The Roles of the Different Actors

A best-in-class low-income rate affordability program represents a partnership between multiple stakeholders, each of which plays a key, though not exclusive, role in delivering program benefits. The key roles played by the various stakeholders include:

- A ***utility regulatory commission*** recognizes the need for a low-income rate affordability program as a cost-effective mechanism for addressing the inability-to-pay problems by the poor. The commission provides policy oversight of the program, in addition to providing fiscal oversight and control of program cost-recovery. In each of the best-in-class programs discussed herein, the regulatory commission provides this policy and fiscal oversight.

- The ***local distribution utility*** serves as the delivery agent for the low-income rate affordability program. The delivery agent is the institution through which affordability benefits are posted and communicated to the customer. Rather than providing cash benefits directly to a customer, affordability benefits are delivered either through bill reductions, or through direct vendor payments made to the utility. In each of the best-in-class programs discussed herein,

[36] Conservation incentives can be preserved through mechanisms such as offering percentage-of-income based benefits through a fixed credit on the bill or imposing bill or benefit caps.

benefits are distributed as bill credits, whether calculated by reference to percentage-of-income-based rates (Columbia Gas CAP, Equitable Gas CAP, Ohio PIPP, New Jersey USF), or by reference to tiered discounts (New Hampshire EAP, Maryland EUSP, National Fuel Gas LIRA, Citizens Gas/Vectren USP).

The local distribution utility further plays the primary role in targeting the rate affordability program to payment-troubled low-income customers. This targeting involves recognizing a persistently payment-troubled customer and referring that customer to the appropriate institution to determine whether the customer is income-eligible for the rate affordability program. Only the utility has the capacity to use its existing processes (call center conversations, collection processes) to recognize the persistently payment-troubled customers that would benefit from a low-income rate affordability program.

- The ***state or provincial government***, acting through its legislative body, may act to authorize the implementation of a low-income rate affordability program. While such legislative action should not be necessary so long as the local distribution utility offers the rate affordability program as a mechanism to improve the efficiency and effectiveness of utility operations, rather than exclusively as a social benefit, enactment of legislation may eliminate any ambiguity in regulatory jurisdiction over affordability programs.

  In the event that the legislative body acts, the best-in-class programs find that the legislative action is limited to language either authorizing (you "may" implement an affordability program) or mandating (you "must" implement an affordability program) regulatory agency action. Program design and operational decisions are best *not* placed in legislation, but rather left to the implementing agency.

- ***State and federal government agencies*** (other than the utility regulatory commission) serve as the front-line in determining income eligibility for a low-income rate affordability program. While the local distribution utility company is likely the institution who identifies a potential program participant, referrals for the actual determination of income-eligibility are generally made to a government agency.[37] While some utilities retain the task of determining income-eligibility for in-house utility staff, this is unusual. Programs such as the New Hampshire EAP, the Maryland EUSP, the New Jersey USP, and the Citizens Gas/Vectren USP rely on the federal fuel assistance program nearly exclusively to determine income eligibility for individual program applicants.

[37] These government agencies, of course, frequently operate through contractual relationships with local community-based organizations. The determination of income eligibility for the federal fuel assistance program, for example, is generally made through a contract with a local Community Action Agency.

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a.l.l. 2003

Acceptable Living Level

Manitoba

Prepared by Winnipeg Harvest & the Social Planning Council of Winnipeg

Part 6: Case Studies

The purpose of this report is two-fold. First, to create a basket of goods and services by which one can establish an acceptable living level in Manitoba; and secondly, to provide a detailed analysis of the *actual* living level of low-income Manitobans. While both tasks are equally valid, it is important to highlight the discrepancies between the way Manitobans *ought to* live and the way they *actually* live. Poverty is a reality for many Manitobans. The Acceptable Living Level report attempts to draw attention to the often neglected truth of the poor standard of living far too many Manitobans are forced to deal with.

The 2003 A.L.L. expands on the original report in its analysis of the *actual* cost of living for low-income families. Thirteen low-income Manitobans kept detailed records of their spending for the month of July 2003. Goods and services were categorized based on the categories identified in the A.L.L. baskets. Annual sub-totals were calculated for every category based on monthly expenditures. Total annual expenditures were subsequently calculated. Consultants found that total annual expenditures roughly equalled or exceeded their annual income.[18] Consultants noted that they spend every penny they have just to meet basic needs.

Ten consultants rely on social assistance. One consultant is waiting for unemployment insurance after her husband was injured on the job and subsequently laid off. Two consultants are working while attending school.

Incomes, as calculated based on annual expenditures range from $7,011.96 for a family with two adults and two children to $26,905.92 for a family of two adults and two youth. Twelve out of the thirteen consultants rely on a food bank twice a month to supplement their food budget.

The case studies include families from three regions in Manitoba including Winnipeg, Brandon, and Lac du Bonnet. From the Winnipeg area, consultants from five communities throughout the city were contacted, including: Point Douglas, Downtown, Charleswood, Transcona, and St. Boniface. The Winnipeg case studies include the following family types:

- A single woman
- A single woman (senior)
- Two adults and two youth
- Two adults and two children
- Two adults and one child
- Two adults
- Single mother and four children

A single mother with five children living in Lac du Bonnet kept detailed records of her family's spending for the month. In Brandon, two consultants provided research for the report, including a single mother with four children; and a single mother with five children.

[18] Annual Income was calculated based on total income from all sources including after tax income, tax returns, tax credits, GST, and child tax credit.

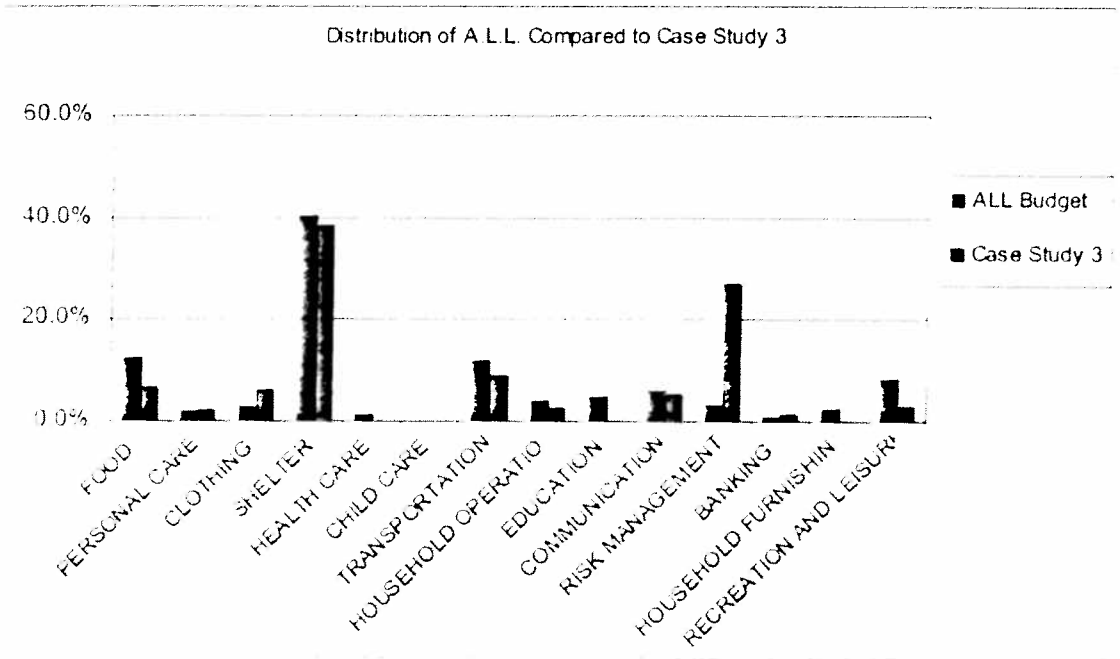
Case study three reveals that a single male with a total annual income of $8,888.16 requires $6,494.15 to meet the A.L.L. budget for this family type, and $10,372.84 to meet the Statistics Canada Low-Income Cut Off. The Acceptable Living Level budget allocates 57% of total income towards food, clothing, and shelter where as the case study reveals that this individual spends 51% of total income on these three basic necessities.

The following table provides actual dollar figures and variance by item between the Acceptable Living Level budget and the case study for a single male. The graph following is a percentage comparison of the A.L.L and the case study.

Table 17

A.L.L. Budget for a Single Male Versus Case Study 3, Single Male in Winnipeg			
Category	**ALL Budget**	**Case Study 3**	**Variance**
Food	$2,547.00	$549.24	-$1,997.76
Personal Care	$279.48	$188.28	-$91.20
Clothing	$407.21	$528.00	$120.79
Shelter	$5,880.00	$3,420.00	-$2,460.00
Health Care	$201.53	$0.00	-$201.53
Child Care	$0.00	$0.00	$0.00
Transportation	$1,726.20	$780.00	-$946.20
Household Operation	$595.74	$206.64	-$389.10
Education	$690.85	$0.00	-$690.85
Communication	$884.04	$456.00	-$428.04
Risk Management	$480.00	$2,400.00	$1,920.00
Banking	$120.00	$120.00	$0.00
Household Furnishings	$370.26	$0.00	-$370.26
Recreation and Leisure	$1,200.00	$240.00	-$960.00
Total Yearly Income/Cost	**$15,382.31**	**$8,888.16**	**-$6,494.15**

Chart 19



6.2.3 Case Study 3: M.C.

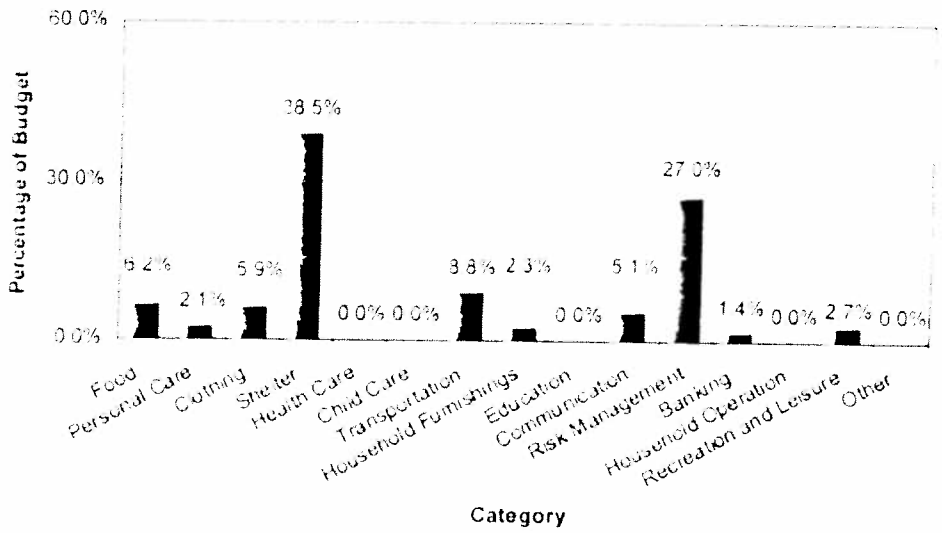
M.C. is a single male living on Provincial Assistance Disability. He uses the food bank twice a month because his budget does not give him enough to spend on food. In July, he had to pay for a lawyer and as a result, he was only able to spend $45.00 on food for the entire month. Any emergency costs come directly out of his food budget.

M.C. has high blood pressure and should take a new prescription that has fewer side effects than the pill he currently takes. The problem is that the new pill is not covered by Manitoba Health and he cannot afford to pay for it. His health suffers as a result of living in poverty. Due to his disability, M.C. cannot work. If M.C. had more money, he would use it to enjoy life. He is forced to "just sit there day after day, waiting for the next social assistance cheque."

Table 20

Case Study 3 - Single Male Charleswood M.C.			
Category	$ Monthly Cost	$ Yearly Cost	% of Total Income
Food	$45.77	$549.24	6.2%
Personal Care	$15.69	$188.28	2.1%
Clothing	$44.00	$528.00	5.9%
Shelter	$285.00	$3,420.00	38.5%
Health Care	$0.00	$0.00	0.0%
Child Care	$0.00	$0.00	0.0%
Transportation	$65.00	$780.00	8.8%
Household Furnishings	$17.22	$206.64	2.3%
Education	$0.00	$0.00	0.0%
Communication	$38.00	$456.00	5.1%
Risk Management	$200.00	$2,400.00	27.0%
Banking	$10.00	$120.00	1.4%
Household Operation	$0.00	$0.00	0.0%
Recreation and Leisure	$20.00	$240.00	2.7%
Other	$0.00	$0.00	0.0%
Total (pre-tax)	**$740.68**	**$8,888.16**	100.0%
LICO (pre-tax 2002)	$1,605.08	$19,261.00	-
Variance	-$864.40	-$10,372.84	-

Chart 22



HOME ENERGY AFFORDABILITY IN MANITOBA:

A Low-Income Affordability Program for Manitoba Hydro

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November 2010

As Table 1 shows, nearly half (49%) of Manitoba's low-income (below 125% LICO) customers are highly cost-burdened by their energy bills.[3] A full three-quarters of Manitoba Hydro's customers with income at or below 125% of LICO experience energy burdens at or above the maximum affordable level.[4]

Even the energy burdens provided above, however, under-state the magnitude of the home energy affordability problem on the Manitoba Hydro system. Setting aside the fact that the Manitoba Hydro analysis was based on 2003 prices, home energy bills fall at or below the 6% affordability level in Table 1 when income reaches $25,000. This break-point, however, is misleading since it is based on an average electric bill. As Manitoba Hydro reports, "generally, for a fixed income, the energy burden will rise as the family size increases." (PUB/MH-I-213(d)). Electric heating customers with three people in their home have electric bills 40% higher than customers with only one person in the home (and 15% higher than two-person households). This is significant because households at the higher income levels are also disproportionately larger-size households which should have higher-than-average electric bills.

- While 4-person households are only 15% of the total population, they are 41% of the population with income of $30,000 or more.
- While 5-person households are only 7% of the total population, they are 21% of the population with income of $30,000 or more.
- While 6-person households are only 4% of the total population, they are 11% of the population with income of $30,000 or more.
- While 7-person households are only 1% of the total population, they are 3% of the population with income of $30,000 or more.

As can be seen, since higher income households are associated with larger households, and since larger households are associated with larger home energy bills, the energy burdens of the higher income households will be greater than those that are presented in Table 1.[5]

The inadequacy of income for low-income households in Manitoba can further be seen by the comparison that the National Council on Welfare makes annually between welfare income and various poverty measures.[6] The National Council compares welfare income to three different measures of poverty: before-tax LICO; after-tax LICO, and a market-basket measure (MBM). Table 2 sets forth the most recent data.

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[3] A "high cost burden" falls in the middle of a three-step range of home energy burdens: (1) affordable; (2) highly burdened; and (3) severely burdened. Households are considered to be highly cost-burdened if their home energy burdens fall into the 10% to 11% range. Carroll, et al., at 15.

[4] If Manitoba Hydro customers combined gas heating with electric bills, their home energy bills are even greater, and, therefore, their burdens would be higher. See, RCM/TREE MH-I-150.

[5] The converse will be true as well, of course: households with fewer people will have lower energy burdens. However, even if the energy burden for households with income below $10,000 is lowered by 20%, those burdens will remain at between 15% and 40% of income.

[6] Information for this analysis was taken from the most recent annual report. National Council on Welfare (Winter 2008). *Welfare Incomes: 2006 and 2007*, National Council on Welfare: Ottawa (ONT).

Table 2. Comparison of Welfare Income to Three Measures of Poverty (Manitoba) (2007)

Household type	Welfare Income	LICO, After-Tax		LICO, Before-Tax		Market Basket Measure	
		Welfare Pct of	Deficit /a/	Welfare Pct of	Deficit /a/	Welfare Pct of	Deficit /a/
Single, employable	$5,827	27%	($15,840)	32%	($12,128)	42%	($8,096)
Person with disability	$7,026	42%	($12,640)	50%	($8,928)	65%	($4,897)
Lone parent, one child	$14,664	54%	($12,308)	67%	($7,187)	81%	($3,436)
Couple, two children	$21,177	53%	($19,083)	62%	($12,770)	76%	($6,669)

NOTES:
/a/ Deficit is the dollars required to reach each respective poverty measure from the welfare income.

SOURCE: National Council on Welfare Reports, Welfare Incomes, 2006 and 2007, at 44 (LICO-AT), 45 (LICO-BT), and 49 (MBM) (Winter 2008).

Table 2 shows the financial crisis facing welfare households in Manitoba. While the dollar amounts may differ, the pattern is the same for the After-Tax LICO, Before-Tax LICO, and Market Basket Measure delineations of "poverty." Welfare incomes are a fraction of income compared to each of the three poverty measures. In each case, the lone parent household with one child comes closest to having welfare income equal to the respective poverty measures. The income deficit is still substantial under each measure.

- On an after-tax LICO basis, a lone-parent with a child is in the best position, still falling more than $12,300 short of the funds to reach 100% of after-tax LICO.

- On a pre-tax LICO basis, the welfare income of a lone-parent, single child family comes closer to the poverty measure. Nonetheless, the income deficit is still nearly $7,200.

- When compared to Canada's Market Basket Measure,[7] welfare incomes come closest to fully funding (81%) a minimally adequate income. Nonetheless, the lone-parent with a single child falls more than $3,400 short of the Market Basket Measure of poverty.

In contrast to the lone parent with a single child, a couple with two children have welfare incomes that range from roughly half of the After-Tax LICO (53% with an income deficit of $19,083) to nearly 80% of the Market Basket Measure (76% with an income deficit of $6,669) of the respective poverty measures.

[7] The Market Basket Measure was developed by Human Resources Canada to supplement LICO. The MBM takes into account differences in the cost of living between the provinces. Moreover, the MBM takes into account the differences in cost-of-living for different household and family types.

the number of accounts with 90+ day arrears varies only between a low of 21,821 accounts (December 2009) and a high of 24,964 accounts (June 2009). Unlike the 60% to 70% reductions in short-term arrears over the course of a year, the long-term arrears remain relatively constant (both in terms of dollars of arrears and in terms of accounts in arrears).

Table 3. Manitoba Hydro Arrears by Aging Buckets (Feb – December 2009)

	Residential Customers	Dollars /a/			Accounts /b/			90-Day "Bills Behind"
		30 Days	60 Days	> 90 Days	30 Days	60 Days	> 90 Days	
Feb-09	460,615	$13,673,000	$5,354,000	$23,326,000	38,374	19,886	22,677	
Mar-09	460,804	$12,053,000	$6,759,000	$24,070,000	35,348	20,426	22,546	
Apr-09	461,075	$11,661,000	$6,080,000	$24,603,000	34,035	18,341	23,833	
May-09	461,315	$11,809,000	$6,060,000	$25,061,000	37,532	18,919	24,572	
Jun-09	461,599	$9,241,000	$6,299,000	$25,067,000	34,677	20,605	24,964	
Jul-09	461,969	$7,469,000	$4,263,000	$25,342,000	32,861	16,735	24,123	
Aug-09	462,310	$7,063,000	$3,995,000	$24,151,000	34,573	17,108	24,717	
Sep-09	462,776	$5,107,000	$3,280,000	$23,387,000	30,622	15,980	24,609	
Oct-09	463,392	$6,579,000	$2,046,000	$22,112,000	31,457	15,237	23,664	
Nov-09	463,860	$7,637,000	$2,735,000	$20,372,000	36,028	15,073	22,890	
Dec-09	464,305	$7,906,000	$4,018,000	$20,005,000	33,302	16,956	21,821	
Average	462,184	$9,108,909	$4,626,273	$23,408,727	34,437	17,751	23,674	12.2 bills behind

SOURCES:

/a/ RCM/TREE/MH-I-40(a).
/b/ RCM/TREE/MH-I-40(b).

One problem faced by Manitoba Hydro customers who carry arrears is the higher bills for current usage that those customers face each month. Table 4 compares the bills for current consumption incurred by all Manitoba Hydro residential customers against the bills for current consumption incurred by the Company's residential accounts in arrears. On average, Manitoba Hydro residential customers in arrears experienced bills for current consumption 70% higher than the average residential customer. While the average bill for current consumption for the Company's residential accounts in arrears was $135 in the 11 month period for which Manitoba Hydro could provide data, the average monthly bill for current consumption was only $81. Throughout the year, bills for residential accounts in arrears were significantly greater than bills for the average residential customer.

failed to report that of the ten utilities that it seeks to emulate for its AEP due to their "holistic" approach to low-income services, seven offer substantial rate discounts to their low-income customers. (RCM/TREE/MH-I-126). Indeed, of the seven utilities offering discounts, three participate in percentage of income programs.

In sum, Manitoba Hydro presents no information to support its assertion that a low-income affordability program should focus on demand side management because the "lessons learned" from programs in other jurisdictions counsel that demand side management generates a greater return on investment to both customers and the utility. No empirical study comparing the return on investment has been identified, let alone cited or reviewed by the Company. No methodology for calculating a return on investment has been presented (or even identified). Moreover, to impose a return on investment test on low-income programs would impose on those programs a test that Manitoba Hydro does not impose on any other major credit and collection activity directed toward low-income customers.

The Need to Provide "Price Signals" Proposed by Manitoba Hydro

The argument advanced by Manitoba Hydro: Manitoba Hydro finally expresses concern about whether the offer of discounted rates to low-income customers would "distort" price signals to those customers. (RCM/TREE/MH-I-159). The Company selectively cites the comments of various stakeholders opposed to low-income rates. The thrust of the comments, however, is the assertion that "assistance should not distort price signals to consumers. The commodity price should continue to reflect the true cost of energy used by low-income energy consumers. . ." (RCM/TREE/MH-I-159).

The failings of that argument: Energy bills represent an ineffective means to send price signals to low-income customers. The notion of sending a "price signal" assumes that the customer has the ability to *receive and act upon* the signal. When a customer has an inability-to-pay, however, that inability-to-pay distorts the price signal far more than a rate discount would. Low-income customers, particularly customers with energy burdens exceeding a prescribed level, pay less than their entire bill. Under such circumstances, it is the unaffordability of the bill that distorts the price signal.

A low-income discount program that reduces bills to an affordable level actually *improves* the price signaling of utility rates rather than distorting that price signaling function. This is particularly true if the low-income program is appropriately designed.

For example, analysis presented in this paper recommends a percentage of income "fixed credit" mechanism for delivering low-income discounts in Manitoba. Under a fixed credit program, low-income customers receive a fixed dollar credit applied to their bills at standard residential rates. To the extent that a customer's bill changes, whether due to changes in price or due to changes in consumption, the customer's payment obligation either increases or decreases accordingly. Reduced bills attributable to energy conservation, just like increased bills due to higher consumption, are immediately reflected in the low-income customer's payment obligation.

This immediate change in the customer's affordable bill presents a far more cogent "price signal" than the customer would receive without the fixed credit program. Without the program, the impact to the customer might well be only whether the customer has an arrears of $800 or an arrears of $900,[47] hardly a compelling price signal mechanism in that both mean that the bill for current usage will not likely be paid in a full and timely fashion.

Despite the theoretical concern expressed by Manitoba Hydro about a low-income rate affordability program distorting price signals, the reality is that a low-income rate affordability program improves rather than distorts the price signaling function of utility bills.[48] From an empirical basis, despite the operation of low-income discount programs in the United States for more than 20 years, and repeated impact evaluations of those programs by numerous different evaluators,[49] *not one impact evaluation has found that the rate discount resulted in a systematic increase in consumption*.

Quite aside from the fact that neither economic theory nor empirical evaluations support the concern that Manitoba Hydro has expressed about how low-income discounts would "distort" price signals, the Company has not expressed similar concerns with respect to other billing programs that primarily benefit customers other than low-income customers. For example, the Company does not express concern about whether, or how, its Levelized Budget Billing program distorts price signals.

Table 7 provides basic information about the Equal Payment Plan program offered by Manitoba Hydro.[50] Roughly 20% of the Company's total residential customer base was in the levelized budget billing program in 2009. Participation ranged from 90,000 to 100,000 residential customers.[51] By its nature, levelized budget billing is intended to cost-shift utility bills so customers do not see the full impact of their consumption decisions in their monthly bills. As a result, by design, levelized budget billing distorts the "price signals" to residential customers, especially in the high costs months when consumption decisions would have the biggest impact on usage and bills. Indeed, as Table 7 shows, in the high cost months of January through March, between 65% and 90% of residential customers on the levelized budget billing plan are not billed the full cost of their monthly consumption. Given an average residential bill of more than $80, the budget billing customers are being billed somewhere between 30% and 75% less than their

[47] The average residential arrears of an account with an arrears 60-days old or older is $900. RCM/TREE/MH-I-155.

[48] From an economic theory perspective, it is easy to understand this result. From a price theory perspective, price signals "work" only if there is adequate information about price and quality. The inability-to-pay, and the resulting arrears, impedes this information process. By improving this information process, while maintaining the task of reflecting increases and decreases in a bill, the rate affordability program improves rather than distorts the price signal. See generally, R.Colton (1990). "Customer Consumption Patterns within an Income-Based Energy Assistance Program." 24 *Journal of Economic Issues* 1079.

[49] See the various reports presented to, but not reviewed by Manitoba Hydro. (RCM/TREE/MH-I-171).

[50] An Equal Payment Plan program does not provide substantive affordability benefits to low-income customers with high energy burdens. High energy burdens are calculated on an annual basis. No matter how a home energy burden is spread over a year, a burden of more than 6% will still be unaffordable. Equal Payment Plans are designed to help customers whose bills may be affordable on an annual basis, but whose monthly variability in the billing pushes any particular month into an unaffordable range for that month.

[51] For administrative reasons, customers are removed from budget billing in the settlement month (August) and re-enrolled the following month. Participation rates in August and September thus do not reflect the annual rate.

actual usage in those high cost months. Nonetheless, Manitoba Hydro does not express concern about any resulting distortion of price signals for these budget billing customers.

Table 7. Manitoba Hydro Levelized Budget Billing Plan (2009)

	Residential Customers	Average Monthly Bill	Levelized Budget Billing Plan Participants				
			No. of LPP Participants	Percent of Total Residential	No. with Credit Balance	No. with Debit Balance	Pct with Debit Balance
January	460,269	$140	89,057	19%	14,533	78,297	88%
February	460,615	$116	90,043	20%	27,538	57,587	64%
March	460,804	$108	90,422	20%	35,633	58,159	64%
April	461,075	$103	90,557	20%	40,419	44,197	49%
May	461,315	$71	90,505	20%	80,610	13,013	14%
June	461,599	$65	90,421	20%	72,769	11,858	13%
July	461,969	$60	90,189	20%	69,759	23,435	26%
August /a/	462,310	$57	4,619	1%	43,934	45,891	994%
September	462,776	$59	83,625	18%	66,747	23,685	28%
October	463,392	$76	97,904	21%	75,682	22,481	23%
November	463,860	$78	99,729	21%	86,994	17,836	18%
December	464,305	$101	101,064	22%	49,929	46,166	46%

SOURCE: RCM/TREE/MH-I-57

NOTES:

/a/ For program administration purposes, customers are removed from the Equal Payment Plan in the balancing month (August) and re-enrolled the following billing month.

When coupled with the failure of Manitoba Hydro to perform any "return on investment" for its budget billing program, or to assess the extent to which, if at all, budget billing helps to reduce either bad debt or residential arrears, the added failure of Manitoba Hydro to evidence concern about the price distortion of levelized budget billing makes the concern that Manitoba Hydro now expresses about the impact that a low-income discount might have on "price signals" ring hollow.

The Programmatic Failings of the Manitoba Hydro Response

Manitoba Hydro fails to support its proposed low-income program proposal on a programmatic basis. The Company's program fails when considered from a needs basis and from an administrative basis. The problems with the energy efficiency, crisis intervention and payment management components will be separately reviewed below.

- Identify one single program evaluation of a rate affordability program using "bill messaging" as a key component (RCM/TREE/MH-I-129(c));

- Identify one single "bill assistance report and consultation paper" that identified "alternative payment methods" as a key component to a comprehensive rate affordability program (RCM/TREE/MH-I-129(e));

- Identify one single program evaluation of a rate affordability program using "alternative payment methods" as a key component of the rate affordability program. (RCM/TREE/MH-I-129(f)).

- Identify one single "bill assistance report and consultation paper" that identified "payment locations" as a key component to a comprehensive rate affordability program (RCM/TREE/MH-I-129(h));

- Identify one single program evaluation of a rate affordability program using "payment locations" as a key component of the rate affordability program. (RCM/TREE/MH-I-129(i)).

One problem with these "payment management" options is that Manitoba Hydro views low-income inability to pay as a budget problem (i.e., "payment management") rather than as an affordability problem. As Manitoba Hydro quite openly states: the "concept of energy burdens is not used in the design or assessment of Manitoba Hydro's affordable energy programs." (PUB/MH-I-213).

While Manitoba Hydro concedes that there will be customers who "require more assistance than Manitoba Hydro can offer," (AEP 11), the Company has not:

- Identified any metrics to employ to make that determination (RCM/TREE/MH-I-132(a));

- Identified any data elements that would be used to identify such customers (RCM/TREE/MH-I-132(b));

- Established any policies or procedures for staff to use in making such a determination (RCM/TREE/MH-I-132(e)); or

- Created any training materials, or provided training to any call center or field office staff, on how to make such a determination. (RCM/TREE/MH-I-132(f)).

The ineffectiveness of the "payment management" options that Manitoba Hydro references can be seen in the case studies of an ""acceptable living level" for Manitoba. No matter how well a low-income household "manages" its budget, it is simply not possible to stretch an income of

$7,011.96 to cover expenses of $36,912.[59] No matter how well a low-income household "manages" its payments, it is not possible to stretch an income of $8,888.16 to cover expenses of $15,382.31.[60]

Ultimately, the "payment management" options that Manitoba Hydro offers will be ineffective because they do not address the underlying unaffordability. Manitoba Hydro, however, does not offer these program options because they will be effective. Rather, the Company offers these program options because of its stated philosophy that "the issue of whether energy is affordable is outside the scope of Manitoba Hydro's mandate. . ." (RCM/TREE/MH-I-94).

The Administrative Program Shortcomings

The low-income program proposed by Manitoba Hydro has substantial administrative shortcomings. Many of those shortcomings have been addressed above. There is no definition of key elements of the eligibility requirements imposed by the Company, let alone an articulation of specific metrics or data elements to be used in the application of those eligibility requirements. There is no ability to determine even short-term outcomes from the application of NHN grants, including the prevention of arrears, the prevention of disconnect notices, and the prevention of service disconnections for nonpayment.

One other administrative shortcoming, however, is the considerable administrative expense that underlies the NHN program. In 2008/2009, the last year for which there is data, the Manitoba Hydro NHN initiative budgeted to spend 37% of its total program costs on program administration (RCM/TREE/MH-I-138), with an additional 2.7% budgeted to support the "marketing" of the NHN program (RCM/TREE/MH-I-139). Of the $217,172 budget, in other words, $87,308 was budgeted to support administration and marketing.

In the 2008/2009 fiscal year, for each average grant of $254 provided by NHN, Manitoba Hydro spent $166 on administration and marketing. (RCM/TREE/MH-I-141, RCM/TREE/MH-I-142). More efficient ways exist through which the Company can appropriately address low-income inability-to-pay.

In addition to the costs of the Manitoba Hydro crisis intervention program, however, is the inability of Manitoba Hydro to coordinate the services that it provides with the crisis intervention program. The failure of the Company to coordinate the NHN crisis intervention with the Company's energy efficiency program has been previously discussed. This failure is not coincidental. It is inherent within the program structure. The Company has no information upon which to offer the integrated services that it discusses. Instead, it refers customers to the Salvation Army and relies upon the Salvation Army to "assess client needs and situations." (RCM/TREE/MH-I-133). The Company does not receive, nor could it provide, any information on the client "needs and situations" as determined by the Salvation Army. (RCM/TREE/MH-I-134). With such a lack of information, it is not possible to determine the integrated services (e.g., efficiency, crisis intervention) that would benefit each client.

[59] Ford and Harris (2003). *Acceptable Living Level: Manitoba*, at 49, Winnipeg Harvest and the Social Planning Council of Winnipeg, Winnipeg (MAN).
[60] Id., at 50.

Summary

The Affordable Energy Program proposed by Manitoba Hydro has within it inherent and irresolvable difficulties. The Company proposes to provide individualized assistance to customers who have a "genuine difficulty" in paying their home energy bills. Despite this individualized assistance, the Company proposes to have a "clear definition" of eligibility. Manitoba Hydro cannot, however, even define who is and who is not eligible for assistance, let alone identify what information will be used to distinguish who will receive assistance and who will not.

The Company further proposes to focus its Affordable Energy Program on delivering energy efficiency investments. The energy efficiency needs of the Company's low-income customers, however, far outstrip the ability of the Company to deliver. On the one hand, the number of low-income customers with bills sufficiently high to indicate the probable need for efficiency investments is so large as to be beyond the reach of the Company in a reasonable time frame. On the other hand, a substantial number of low-income customers have bills that, even with reasonably expected bill reductions accruing from efficiency investments, could not be reduced to an affordable level.

Finally, while the Company proposes a program that it asserts will deliver a higher "return on investment" than any alternative, it further proposes to rely on a program that for every average grant of $254, it has historically spent $166 on administrative and marketing costs.

An alternative programmatic approach and delivery system for addressing the social and utility problems presented by the unaffordability of home energy to Manitoba Hydro's low-income customers is presented in the next section.

PART 3:
A LOW-INCOME AFFORDABILITY PROGRAM FOR MANITOBA HYDRO

In response to the affordability problems documented above, and the broad range of utility, social, and business competitiveness impacts arising because of these problems, this report outlines the essential components comprising an effective and efficient low-income affordability program for Manitoba Hydro. These components include:

- A rate affordability component;
- An arrearage management component;
- A crisis intervention component; and
- An energy efficiency component.

THE RATE AFFORDABILITY COMPONENT

The first critical component of a low-income affordability program is a rate affordability program. Through the rate affordability program component, the price of home energy is set at 6% of income, a level that will generate an enhanced ability of low-income customers to make actual payments. Within the context of Manitoba Hydro's electric rates, this paper considers an electric program.

An Overview and Summary.

Building a rate affordability program consists of the following basic steps:[61]

1. **Eligibility:** Defining the eligibility for the rate affordability program should allow the program to be *open to enrollment* by any low-income consumer. For purposes of this program, a "low-income consumer" is any consumer with gross household income at or below 125% of the Low-Income Cutoff (LICO).

2. **Outreach:** Informing low-income customers of the availability of the rate affordability program involves both education about the *existence* of the program and education about *how to enroll* in the program. The most effective forms of outreach for ratepayer-funded programs have been found to involve the use of community-based organizations as well as organizations that deliver social assistance benefits to the same households that are eligible to receive rate affordability benefits. Outreach should also occur through the local utility channeling customers to the program when, based on utility records, those customers are found to be payment-troubled.

3. **Intake:** Enrolling customers in the rate affordability program involves making customers into program participants. The primary intake should occur by contracting with relevant federal and provincial agencies to "match" electronic lists of residential customers with lists of social assistance program participants. This income verification is effective and inexpensive. In addition, consumers should be given the opportunity to complete an in-person application through a community-based site whether or not they participate in a social assistance program.

4. **Collections:** Enforcing customer payment obligations after a customer receives a rate affordability benefit should occur through the same credit and collection activities directed toward any residential customer. If a customer receiving service through an affordable rate does not make appropriate payments, that customer enters the collection cycle with the same rights and responsibilities as any other customer. In this fashion, no new or special administrative process is created for the rate affordability participants.

5. **Recertification:** Recertifying income for customers whose income cannot reasonably be determined to be non-variable over the long-term should occur on an annual basis. Most participants will have their income recertified automatically through a contract with the appropriate social assistance agency. For those customers whose income cannot be recertified in this fashion, the customer will be notified at an appropriate time before his or her anniversary date of the need for recertification.

Having provided this summary, the remainder of this section will address the structural and operational issues of rate affordability assistance in more detail.

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[61] *See generally*, Roger Colton (2007). *Best Practices: Low-Income Affordability Programs, Articulating and Applying Rating Criteria*, prepared for Hydro-Quebec, Fisher, Sheehan & Colton: Belmont (MA).

Proposed Structure for a Manitoba Rate Affordability Program.

Rate affordability assistance for Manitoba Hydro customers should be tied to the most recently available LICO. The proposal here is to set eligibility equal to 125% of LICO. For a household with three persons, the maximum eligibility[62] under this guideline would be $42,416 for a community with a population of 500,000 or more.[63]

Table 12. Low-Income Cutoffs for 2008 (before tax) (1.25x)

Family Size	Rural	Urban Areas			
		Less than 30,000	30,000 – 99,999	100,000 – 499,999	500,000 or more
1	$19,078	$21,705	$23,720	$23,868	$27,714
2	$23,750	$27,019	$29,529	$29,711	$34,501
3	$29,198	$33,216	$36,301	$36,528	$42,416
4	$35,451	$40,330	$44,076	$44,350	$51,498
5	$40,206	$45,743	$49,990	$50,299	$58,409
6	$45,348	$51,590	$56,381	$56,731	$65,874
7 or more	$50,488	$57,438	$62,773	$63,161	$73,341

SOURCE: Based on: Low-income Cut-offs and Low-Income Measures for 2007 and 2008 (June 2009).

It should be recognized that under a rate affordability program that is based on affordable home energy burdens, if, because of relatively higher income or relatively lower home energy bills, the pre-determined percent of a household's income will exceed their annual electric bill, the household will receive no benefit. In those instances, the home energy bill is deemed "affordable" and the local utility will collect the entire bill calculated at standard residential rates. Only in those instances where the household, due to low incomes or high bills, faces a utility bill that exceeds the designated percentage of its income, is the bill deemed to be "unaffordable" and the rate is offered to reduce the burden to an affordable level.[64]

[62] The fact that the maximum eligibility is set at $42,416 does not mean that the average income for eligible customers will be at this income level. The average income will be much lower.

[63] With a population in Winnipeg of roughly 675,000, the figure for 500,000 or more seems to present the best comparison.

[64] To illustrate, assume a household has an annual income of $25,000, an annual energy bill of $1,200, and is asked to pay six percent (6%) of her income toward her energy bill in an income-based program. This customer's income-based energy bill payment would be $1,500 ($25,000 x .06 = $1,500). Hence, this customer would decide *not* to participate in the income-based rate, since her bill at standard residential rates is *less* than the bill rendered under the rate affordability program.

Rate affordability assistance in Manitoba should be distributed on a percentage of income basis. Using a percentage of income approach to targeting provides a more efficient use of scarce rate affordability resources. This can be demonstrated by comparing an across-the-board discount to a percentage of income approach. While a percentage of income approach delivers those benefits, but only those benefits, needed to bring low-income bills into an affordable range, an across-the-board discount does not. Using an across-the-board discount, the universal service program would pay some customers *more* than is necessary to bring bills into an affordable range while paying other customers *less* than is necessary to bring bills into an affordable range. Accordingly, it is most appropriate to base the rate affordability component of the Universal Service Program on a percentage of income targeting mechanism.[65]

Although a variety of percentage-of-income based approaches exist, delivery of rate affordability assistance using a fixed credit approach is most appropriate. The fixed credit approach begins as an income-based approach. In order to be eligible for the rate, a household must meet *both* eligibility criteria: (1) that the household income is at or below 125% of the Low-Income Cutoff (LICO) for Manitoba; and (2) that the household energy burden exceeds the burden deemed to be affordable.[66]

The fixed credit approach next calculates what bill credit would need to be provided to the household in order to reduce the household's energy bill to a designated percent of income. To calculate the fixed credit involves three steps: (1) calculating a burden-based payment; (2) calculating an annual bill; and (3) calculating the fixed credit necessary to reduce the annual bill to the burden-based payment. Each step is explained below.

1. **Burden-based payment:** The first step in the fixed credit model is to calculate a burden-based payment. Assume -- simply for the sake of illustration here -- that the household has an annual income of $8,000 and is required to pay six percent (6%) for its home energy bill. The required household payment is thus $480. This is determined as follows: $8,000 x 6% = $480.

   Distinctions in the percentage of income payment are made based upon whether the customer is a heating or non-heating customer. The payment is split evenly between the heating and non-heating component of the utility bill. Under a 6% scenario, a natural gas heating customer would be asked to pay three percent (3%) of the household's income toward her home heating bill, and another three percent (3%) toward her electric bill. An all electric customer would pay six percent (6%) toward her electric bill. Other percentage burdens would be similarly split half-and-half (8% converts to 4% toward each fuel; 10% converts to 5% for each fuel).

   The energy burden represented by a combined heating and non-heating energy bill should not generally exceed six percent (6%) of income. It is generally accepted that a household's "shelter burden" (rent/mortgage plus taxes plus utilities) should not exceed

[65] Two states in the United States have adopted a "tiered discount" program to serve as an alternative to an across-the-board discount (New Hampshire and Indiana).

[66] A customer may still participate in the arrearage management program component even if he or she does not participate in the rate affordability component.

30% of income. In addition, a household's home utility bill should not exceed 20% of the household's shelter costs. Combining those two yields an affordable home energy burden of six percent (6%).[67] Clearly, however, the reasonableness of an energy burden is a range and not a point. Ultimately, whether an affordable burden should be set as 6% or as 8% (or some other figure) is a policy decision. The percentage of income burden that triggers significant payment-troubles (*e.g.*, service disconnections) appears to be in the range of 10% to 12% of annual income.[68]

2. **Projected annual bill:** The second step is to calculate a projected annual household energy bill. This calculation is to be made using whatever method the local utility *currently* uses to estimate annual bills for other purposes. A utility, for example, will likely have an established procedure for estimating an annual bill for purposes of placing residential customers (low-income or not) on a levelized Budget Billing Plan (where bills are paid in equal installments over 12 months). That same process can be used to estimate an annual bill for purposes of calculating the needed fixed credit.

3. **Fixed credit determination:** The final step is to calculate the necessary fixed credit to bring the annual bill down to the burden-based payment. Given an annual bill projection of $1,200 and a burden-based payment of $480, the annual fixed credit would need to be $720 ($1,200 - $480 = $720). The household's *monthly* fixed credit would be $60 ($720 / 12 = $60).

In addition to various administrative benefits from the use of a fixed credit, the fixed credit also offers the advantage of providing a strong conservation incentive to the low-income customer. Under the fixed credit model, the local utility provides a $60 fixed credit to the low-income household irrespective of the household's actual bill. If the household increases its consumption, and thus has a higher bill, the household pays the amount of the increase. If, in contrast, the household conserves energy and thus lowers its bill, the household pockets the savings.

The administrative advantages of the fixed credit program are two-fold. First, use of fixed credits as a benefit distribution mechanism allows the program to work within a fixed operating budget. Once a low-income customer is enrolled in the universal service program, the maximum possible financial exposure for the time of the enrollment is established. At no time, can the maximum financial exposure exceed the budgeted program revenues. Systems can be easily designed to track funds that are obligated and expended to ensure that the budget is not exceeded. In contrast, benefit expenditures through either a straight percentage of income program or a percentage of bill program may vary based upon changes in consumption.

In addition to this budgeting advantage, the fixed credit approach makes the billing less complicated as well. Using the same process that currently exists to establish a levelized budget-billing plan, fixed credits can be subtracted from a customer's levelized annual bill.[69] The

[67] This report sets aside for the moment the inclusion of water and sewer utility bills in this six percent.
[68] "Affordability" concerns are triggered at much lower percentage of income burdens. Affordability concerns, involving household budget trade-offs and payment troubles less intense than the loss of service appear to be triggered at the 6% to 8% percentage of income burden levels.
[69] The fixed credit is, in essence, booked as a "payment" on the account.

monthly bill is then rendered based upon this one-time annual adjustment. The utility does not need to make monthly billing adjustments as is the case with either the straight percentage of income, or with the percentage of bill, approach.

In sum, the following critical components of the proposed rate affordability component of a rate affordability program are proposed above:

- Eligibility is set at 1.25 x the Low-Income Cutoff (LICO);
- Enrollment should be, to the maximum extent feasible, implemented through an automated data exchange with social assistance agencies;
- Rate affordability benefits are to be delivered through a fixed credit approach;
- The level of "affordability" should be set at 6% of household income. This affordability factor should be split evenly between baseload electric usage (3%) and space heating (3%). An all electric household should pay the full 6%.[70]

An Alternative Structure for a Manitoba Rate Affordability Program.

Not all electric and/or natural gas utilities have the financial wherewithal to adopt the fixed credit rate affordability described above. For small utilities in particular – Manitoba Hydro would not qualify as a "small" utility --[71] a rate affordability alternative is available. The substantive benefits of a rate affordability program can be generated without incurring the administrative costs of implementing a fixed credit program.

The alternative to a fixed credit program involves the adoption of a tiered discount program. As with the fixed credit program, a tiered discount program is tied to an affordable energy burden. The tools this alternative uses to reach the affordability objectives, however, are somewhat blunter and less-well tailored to assure that all customers achieve affordability. Instead of the targeted affordability benefits, a tiered discount program is aimed at ensuring affordability on average.

The purpose of a rate affordability program is to promote the supply of affordable home energy service to low-income customers. As described above, energy burdens are the generally-accepted mechanism by which to measure "affordability." The fixed credit approach to distributing home energy affordability benefits, as described above, explicitly reduces low-income electric bills to a point where those bills present an affordable burden. The fixed credit is based on a household's actual annual income and actual home energy bills (with some exceptions). The fixed credit defrays the cost of bills that exceed the affordable burden.

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[70] As discussed in more detail above, however, the affordable burden is a range and not a point. Total energy burdens of up to as high as 10% could be determined, by policy, to be within a range of reasonableness.

[71] The Belmont Electric Light Department, a municipal utility serving 10,000 residential customers, adopted a "small utility" rate affordability alternative effective January 2006. One alternative to defining "small utility" by policy is to establish the "small utility" alternative and require a utility to petition regulators for the option of adopting the small utility alternative.

In sum, the following critical elements of the crisis intervention component of a low-income program are proposed above:

- The crisis intervention component should not be based on income-eligibility;
- The crisis intervention component should provide administering agencies with the flexibility to distribute assistance on an as-needed emergency basis;
- The crisis intervention component should be on a limited-time basis; and
- The crisis funding should be distributed through existing crisis intervention programs.

Cost Recovery for Non-Efficiency Program Components

This proposal recommends the recovery of costs primarily (but not exclusively) through a fixed meters charge. The use of a meters charge minimizes differences in intra-class burdens that might arise if cost recovery is undertaken on a volumetric basis. A meters charge cost recovery structure imposes a fixed charge on customers varying by customer class. The fee within any given class, however, does not vary between customers. A residential customer using 600 kWh each month pays the same fee that a residential customer using 1,500 kWh pays.

The Estimated Cost of the Proposed Manitoba Hydro Program

The estimated annual cost of the proposed Manitoba Hydro program is $15.50 million. The program cost is divided into four sections: (1) rate discount; (2) arrearage management; (3) crisis intervention; and (4) administration.

The Cost of the Rate Discount

The total cost of the rate discount program is estimated to be $10.8 million. This cost is based on a 40% participation rate and average 2009 residential bills. (RCM/TREE/MH-I-48(a)). The program cost is based on a 6% affordable energy burden for electric heating customers and a 3% affordable energy burden (electricity) for natural gas heating customers.

The Cost of the Arrearage Management

The cost of the arrearage management program is estimated to be $2.7 million. This cost is based on the following observations about low-income participation in affordability programs:

- 40% of eligible customers will participate in the program;
- 30% of program participants will enter the program with pre-existing arrears;[78]

[78] Manitoba Hydro does not have information on the penetration of arrears within its low-income population. RCM/TREE/MH-I-48(f).

The Structure of Cost Recovery

The costs of the proposed low-income affordability program are proposed to be recovered through a two-part structure. First, a portion of residential late fee revenue should be devoted to the program. The remainder of the program should be recovered as an addition to the meters charge of each customer class.

The Meters Charge Revenue

A meters charge is structured to obtain a customer class payment from each customer class, while at the same time protecting high use customers within any given class from bearing a disproportionate burden of the program costs. Within the residential class, in particular, significantly more than half of the monthly residential bills rendered in 2009 would have experienced an increase of 2% or less. (RCM/TREE/MH-I-83; RCM/TREE/MH-84).[80]

Table 18. Distribution of Low-Income Affordability Program Costs through Meters Charge (Manitoba)

	Number of Customers	Months In Year	Monthly Meters Charge	Annual Meters Charge	Total Revenue
Residential /a/	466,951	12	$1.00	$12.00	$5,603,412
General Service (small) /a/	52,241	12	$2.00	$24.00	$1,253,784
General Service (small) (51 kV.A and up)	22,774	12	$15.00	$180	$4,099,320
General Service (medium)	3,712	12	$50.00	$600	$2,227,200
General Service (large)	303	12	$200.00	$2,400	$727,200
Total revenue					$13,910,916
Total program cost					$15,494,337
Late fee revenue					$1,583,421

NOTES:

/a/ Includes seasonal customers. While seasonal customers are billed twice a year, monthly revenue is assigned to each account. (RCM/TREE/MH-I-65(a)).

The Late Fee Revenue

To supplement the meters charge revenue proposed above, cost recovery should be paid, in part, from residential late fee revenue collected by Manitoba Hydro. In 2009, Manitoba Hydro billed $3.8 million in residential late fees. (RCM/TREE/MH-I-43). An average of more than 84,000 residential customers each month were billed a late fee in 2009. (RCM/TREE/MH-I-44). Manitoba Hydro imposes a late fee of 1.25% per month. (RCM/TREE/MH-I-76(a)).

[80] In fact, however, the rate increases will be much lower. This calculation of a percentage increase does not account for any decreases in normal operating costs caused by the low-income rate.

It is appropriate to use a portion of the late fee revenue to support the low-income affordability initiative. The late fee is not imposed as a cost-justified charge. (RCM/TREE/MH-I-45). Manitoba Hydro does not submit its late charge for review and approval by the Manitoba Public Utilities Board. (RCM/TREE/MH-I-47). The revenues from late fees are not allocated to any particular customer class; rather, they are considered miscellaneous revenues to the utility that are "taken into consideration" in deciding whether to seek rate increases at any particular time. (RCM/TREE/MH-I-77).

Not only does the Manitoba Hydro late fee lack a cost basis,[81] it lacks any basis as an incentive to make payment either for residential customers in general (RCM/TREE/MH-I-54) or for low-income residential customers in particular (RCM/TREE/MH-I-55). The most that Manitoba Hydro could say about what effect its late fees have on customer payments is that such fees are "relevant and comparable" to the fees charged by other utilities. (RCM/TREE/MH-I-54). Nonetheless, the Company concedes that it "has not conducted a formal study, nor is it aware of any external studies, specifically documenting the effectiveness of late payment charges as an incentive for residential customers to pay." (RCM/TREE/MH-I-54, RCM/TREE/MH-I-55 [identical statement for low-income customers]). In contrast, rate affordability programs (combined with arrears management) have repeatedly been found to improve low-income customer payment patterns.

Capturing $1.6 million in late fee revenue for the low-income affordability program devotes the late payment revenue to purposes similar to those for which the revenue is collected. The use of $1.6 million of late fee revenue roughly offsets the administrative costs of the low-income program. When measured by the Company's own standard for imposition of the late charge ("relevant and comparable"), this use of late charge revenue is more reasonable than treating such dollars as miscellaneous revenues.

Summary of Cost Recovery

A Manitoba Hydro low-income rate affordability program does not impose unreasonable costs on the Company or its ratepayers. Structured as a fixed credit program, the proposed rate offers substantial discounts to customers with the highest home energy burdens (where the highest arrears are likely to be), with more modest discounts to customers with burdens that are lower, but nonetheless still more than 6% of income. Cost recovery is proposed on a per meter basis. Recovering the program costs through a meters charge minimizes intra-class rate impact differentials. Large users do not pay a correspondingly higher proportion of program costs.

In addition to the recovery of program costs through a meters charge, the cost recovery mechanism proposes to offset a portion of program costs through application of a portion of residential late charge revenues. Through this process, late charge revenues, likely to be paid in large part by the very persons for whose benefit the low-income affordability program is being delivered, are used for the purposes for which they are imposed with which to begin.

[81] In addition to the fact that Manitoba Hydro submits no cost justification for its late fees, the late fee can not be viewed as a mechanism for recovering "collection costs." Collection costs are not separately budgeted by Manitoba Hydro. (RCM/TREE/MH-I-52). Moreover, when Company staff are not engaged in collection activities, they are engaged in other non-collection activities. (RCM/TREE/MH-I-72(d)).

A bill comparison with and without the proposed meters charge demonstrates that the bill impact of the proposed rate affordability program will be minimal. Even without taking into account the cost reductions generated by the rate affordability program, residential bills will increase by less than 2% per year for substantially more than half of all customers. The bill impact would be even less to the extent that the Company takes into account the resulting expense reductions generated by the program.

LOW-INCOME ENERGY EFFICIENCY FOR MANITOBA

In contrast to rate affordability assistance, energy efficiency programs targeted to the poor reduce bills and promote affordability by reducing consumption. Efficiency investments can be an effective tool to use in reducing low-income energy needs for some, but not all, households.

Energy efficiency investments are an effective supplement to the distribution of fuel assistance to address low-income energy needs over the long term. Energy efficiency provides continuing benefits year-in and year-out. Investments in residential energy efficiency help deliver efficient end-uses to consumers. In both the medium- and long-term, energy efficiency will reduce the costs of the rate affordability program.

The effectiveness of the role that energy efficiency can play in addressing home energy affordability, however, is limited by several considerations:

- For many low-income customers, energy efficiency cannot deliver affordable home energy service because unaffordability is driven by income rather than consumption. Even an extremely low consumption level yields a bill that imposes an unaffordable home energy burden on the household.

- For many low-income customers, energy efficiency cannot deliver affordable home energy service because consumption is driven by factors that are beyond the ability of efficiency investments to control. Even a substantial reduction in energy consumption leaves annual usage at high levels.

- The need for affordability assistance in Manitoba extends to tens of thousands of low-income households per year, a number significantly beyond the ability of the utility to treat through efficiency services.

- For many low-income customers, energy efficiency cannot deliver affordable home energy service because the unaffordability is driven by arrears rather than by current consumption. Even if efficiency services were to reduce future bills for current use to an affordable burden, the asked-to-pay amount of the customer would exceed the ability-to-pay due to the need to retire arrears.

A multi-state study of affordability programs in the United States found that "every state that has adopted a home energy affordability program has incorporated an energy efficiency component into that affordability initiative." The study found that "these [low-income efficiency] programs

can effectively complement the impacts of affordability programs."[82] The study reported that energy efficiency "programs can have the greatest overall impact if they target lower income households, households with vulnerable household members, and customers that are participating in a ratepayer-funded affordability program."

The Manitoba Hydro program advanced in this paper proposes just that: (1) to use energy efficiency to complement the impacts of the rate discount; and (2) to maximize the "overall impact" of the efficiency investments by targeting those investments to high use program participants.

The conclusion to be drawn from the above discussion is not that the limitations of energy efficiency as an affordability strategy counsel that low-income energy efficiency investments should not be pursued. The limitations simply indicate that an investment in efficiency measures, while necessary and appropriate, cannot be the focus of an affordability program.

Manitoba Hydro should continue to fund the direct participation of low-income customers in energy efficiency programs in response to high and unaffordable home energy bills. This recommendation for continued funding is supported by two observations.

- First, unless specifically funded, low-income consumers are systematically excluded from having access to energy efficiency investments.
- Second, low-income energy efficiency programs reduce the overall expenses of public utilities.

Accordingly, there should be a mandated minimum amount of energy efficiency funding directed toward low-income customers. Each of the reasons supporting this conclusion is reviewed below.

Low-income energy efficiency programs should deliver a full range of efficiency services. These services would include, but not be limited to energy audits and air sealing, weatherization, insulation, heating and cooling system replacement with high efficiency equipment, hot water heater replacement, and appliance upgrades.

Given the positive role that cost-effective energy efficiency can play in reducing utility costs, while at the same time helping to improve the affordability of home energy to low-income customers, the Manitoba Public Utilities Board should continue to require efficiency programs as part of Manitoba Hydro's response to unaffordable home energy.

[82] Carroll, Colton and Berger (2007). *Ratepayer Funded Low-Income Energy Programs: Performance and Possibilities*, at 132, Apprise, Inc.: Princeton (NJ)..

Establishing Funding Targets for Low-Income Energy Efficiency

One of the key questions, perhaps *the* key question that Manitoba Hydro must resolve in considering energy efficiency programs is the proper funding of the low-income component. Conceptually, funding for low-income efficiency improvements should be the amount that is required to make energy efficiency programs fully accessible to low-income residential consumers. Where low-income consumers cannot access energy efficiency measures, Manitoba Hydro should spend additional funds to ensure that programs are fully accessible.[89]

A direct investment in low-income energy efficiency measures is needed by Manitoba Hydro. In the absence of such a direct investment, low-income investment in energy efficiency, even if cost-effective from the customer's perspective, is not likely to occur.

A variety of barriers impede low-income investment in energy efficiency measures irrespective of whether such investments are cost-effective. Barriers that are either unique to the poor, or that disproportionately impede low-income efficiency investments, include:

- **High initial capital costs**: The barrier posed by high initial capital costs is one of the primary barriers to low-income investment in energy efficiency. The payback period for any particular energy efficiency measure becomes irrelevant if the household does not have the investment capital with which to begin. The impact of this market barrier, for example, is often ignored in the reliance on appliance rebate programs. Such a program may pay the incremental cost of moving a customer from the purchase of a less energy efficient new refrigerator to a more energy efficient new refrigerator. In such a program, if the less efficient refrigerator costs $600 and the more efficient refrigerator costs $700, it may well be cost-effective for the utility to pay the $100 difference to prompt the purchase of the more efficient appliance. This program, however, will automatically exclude households that are not in the market to purchase new refrigerators with which to begin. It is axiomatic to note that not many low-income households recently spent $600 for a new refrigerator.

- **High implicit discount rates/payback periods**: Low-income households tend to have extremely high implicit discount rates (also sometimes known as hurdle rates or internal rates of return). In a report for the Electric Power Research Institute (EPRI), Cambridge Systematics found that the implicit discount rate for low-income households ranged up to the 80 - 90 percent level.[90] For residential households in general, however, the hurdle rate for energy efficiency investments was 30 percent; that translates into a payback period of roughly three years. To the extent that an efficiency program thus strives to bring an energy efficiency investment only within the 30-percent range, it excludes by implication all households which have a higher hurdle rate. One entire category of excluded households consists of low-income households.

[89] Fully accessible means that no lost opportunities exist for cost-effective energy efficiency investments.
[90] Cambridge Systematics (1988). Hurdle rates for energy efficiency by income, Cambridge Systematics: Cambridge (MA).

- **High proportion of low-income renters**: A disproportionate number of low-income households tend to live in rental dwellings. This observation has significance in two respects for the design of energy efficiency programs. First, tenants have little or no incentive to improve their landlord's property. They do not receive any of the increased value of the property and, in fact, may face rent hikes as a result of the improvements. Second, tenants generally do not have dominion interest over their homes; they do not have the authority to make decisions about major energy-consuming systems. Finally, low-income tenants tend to be more mobile. As a result, even in those instances where a tenant may wish to invest in an energy efficiency measure, and assuming a financial ability (*e.g.*, sufficient liquidity) to do so, the payback period required to justify such an investment would need to match the household's tenure. A low-income household, in other words, will not invest in a measure with a three-year payback if that household intends to move to a different dwelling after 24 months.

Given these low-income barriers, Manitoba Hydro should establish a long-term objective to be achieved through the expenditure of low-income efficiency funds. Rather than relying on an arbitrary annual budget amount, in other words, the low-income budget should be viewed as a means to an identified end. Establishing the budget in this fashion allows Manitoba Hydro to measure not merely its activities (e.g., how many dollars were spent; how many homes were treated), but also allows the Company to measure its progress toward that objective. After measuring its progress, the Company will further be able to determine what, if any, changes (programmatic or financial) should be made if appropriate progress is not realized.

The Company reports that it had roughly 93,000 low-income customers at the time of its 2003 energy survey. (RCM/TREE/MH-I-153, RCM/TREE/MH-I-154).[91] Of those 93,000 low-income customers, more than 40% (37,447 or 40.2%) had annual electric bills that were greater than the residential average (see, Table 9).[92] Manitoba Hydro should establish a goal of treating the full range of low-income customers with bills above the residential average within a time-span of 10 years. The low-income efficiency budget should be sufficient to achieve this objective.

The proposed decision rule is that funding for low-income energy efficiency improvements should be the amount that is required to treat the full range of customers with consumption at or above the Company average within a ten year time frame. Progress toward that goal should be continuously measured, with program and/or financial adjustments if progress is inadequate.

Summary

In sum, the following critical elements of the utility energy efficiency program are supported by the discussion above:

- Funding for low-income efficiency improvements should be the amount that is required to make energy efficiency programs fully accessible to low-income residential consumers. Where low-income consumers cannot access conservation

[91] By the time of the 2009 survey, the number of low-income customers had increased to more than 105,000.
[92] 13,447 electric heating customers had bills above the residential average of $1,517; 24,000 gas heating customers had bills above the residential average of $1,753. (RCM/TREE/MH-I-149; RCM/TREE/MH-I-150).

Long Term Study of Pennsylvania's Low Income Usage Reduction Program: Results of Analyses and Discussion

Consumer Services Information System Project
Penn State University

Long Term Study of Pennsylvania's Low Income Usage Reduction Program: Results of Analyses and Discussion

January, 2009

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exceed the payback period. However, all unspecified measures continue with a seven-year payback as stated in the original LIURP regulations. Specified measures include sidewall insulation, attic insulation, space heating system replacement, and water heater replacements. The extension from seven to twelve years for the specified measures was made because the specified measures are long-term, passive measures with a potential for substantial energy savings.

As noted elsewhere in this report, there are two primary methods for assisting low-income households with paying their energy bills. One is to reduce their energy consumption through weatherization programs such as LIURP. The other method is to provide payment assistance programs to assist with paying winter heating bills. The primary program of this type is LIHEAP. Other programs have been developed over the years to assist with promoting regular year-round utility bill payments and to reduce arrearages. In 1994, a major study of LIURP recommended coordinating these services whenever possible to provide the most comprehensive assistance to eligible households and to have maximum combined impact on both energy consumption reduction and improved bill payment behavior. In the years following this study, renewed emphasis was placed on coordinating these programs, where companies refer eligible LIURP households to both LIHEAP and customer payment assistance programs.

Finally, it must be remembered that LIURP is not a static program. Adjustments are made as technologies and regulations change. Companies can also make adjustments to their programs as they become more experienced with what works and what does not. Periodically, LIURP is reviewed with an eye toward adding variables that help with analyses and eliminating those that are not very useful or difficult to obtain. In 1994, various coding changes were made to the data reporting process, and again, in 2000, major coding changes were made to streamline the data gathering process. At this time, several variables were made optional and others were redesigned or eliminated, while variables were also added to capture information on changes in the regulatory environment. Further, specific measure codes are added when companies try new treatments. In recent years, companies have also had the option of implementing pilot studies within LIURP to test new treatments.

The PUC and Penn State continue to evaluate LIURP on a yearly basis and submit reports to each LIURP company. In 1994 the PUC published a major review of LIURP entitled, "LIURP: Historical Report and Program Analysis." Updated statistics on LIURP are also included in each Public Utility Commission annual report, and in the yearly Universal Services reports.

The Need for Energy Conservation

The need for energy conservation cannot be overstated, nor is it new in the United States. Research has called for government policies directed toward reducing energy consumption and increasing energy efficiency since at least the 1970s.[4] By reducing the demand for energy in the present, energy conservation and efficiency programs are the most cost-effective method of ensuring more energy in the future. Conserving now reduces construction costs for new energy facilities, helps reduce utility rate increases, and ensures greater energy reserves for future use. Reductions in energy consumption and increased efficiency of current energy use are also the most effective, quickest, and relatively inexpensive method for reducing greenhouse gas emissions. While most policies designed to reduce greenhouse gas emissions are directed toward transportation and industry, most experts agree that approximately 50 percent of gas emissions in the United States come from commercial and residential buildings[5]. Therefore, it is essential to have energy conservation and efficiency programs tailored specifically to buildings and residences.

The Need for Low-Income Energy Usage Reduction Programs

There are several approaches to meeting the home energy needs of low-income households in the United States. One approach is to provide monetary assistance for paying winter heating bills. Another is weatherization and other modifications to the housing structure to reduce energy consumption. Other approaches include educating households on how to change their energy consumption behavior and the promotion of more energy efficient technologies.

To date, payment assistance for energy bills has typically received the most funding, although such assistance is often just a temporary solution. Education is sometimes dismissed by experts as being ineffective, or difficult to measure in terms of its impacts. Recently, attention has been focused on promoting new energy-efficient technologies, often not accessible or affordable to low-income households with substantial needs for energy conservation. Most experts agree that, in the long run, the approach with the greatest impact for low-income households, as well as many other households, is weatherization.

[4] According to the American Council for an Energy Efficient Economy, since 1970 energy efficiency has met 77 percent of the demands for new energy service in the United States, while new energy supplies provided for the other 23 percent of new energy service demands (Prindle, 2007).

[5] Depending on which factors are taken into account, studies generally estimate between 38 and 51 percent of greenhouse gas emissions come from buildings. According to Hal S. Knowles, in a paper presented at the 2008 International Emission Inventory Conference, buildings in the United States account for 48 percent of annual greenhouse gas emissions, with 36 percent of direct energy related to greenhouse gas emissions and an additional 8 to 12 percent of emissions related to the production of materials used in building construction. The residential sector within the United States specifically consumes approximately 20 to 25 percent of primary energy use, accounting for about 50 percent of the gas emissions within the U.S. buildings sector.

households to pay all of their utility bills. Thus, it is generally agreed that these high energy burdens result in non payment of utility bills, which result in arrearage, possible termination of service, and increased collections costs for companies.

Energy burden is not uniform among the low-income, but varies. For low-income households with the highest energy burden in 1990, the average annual residential energy expense was $1,175. However, this group had lower-than-average income, only $5,419, compared to $10,048 for all low-income households. For this group, the energy burden was 30.1 percent.

So far, our discussion has focused mainly on low-income households. At times we have specified those households with annual incomes at or below the federal poverty level. It is generally recognized that there are substantial numbers of households above the poverty line in need of energy assistance and conservation services, which, although not officially living in poverty, are still, for all practical purposes, "low-income." A study by the National Consumer Law Center concluded that energy bill payment problems are not strictly the result of low-income or high energy usage.[9]

Several reports for Economic Opportunity Studies have also noted this, discussing the concept of "fuel poverty" as opposed to poverty itself. Fuel poverty is fundamentally a result of the quality and costs of housing.[10] As such, fuel poverty is not exclusive to the low-income but extends to many other families. In 2005, 36 percent of the fuel-impoverished households had incomes higher than the federal poverty level. Further, 39 percent of the households living in fuel-poverty are headed by residents who are 65 years of age or older, and half of these live alone. This fact is significant because the elderly population of the United States is rapidly increasing and only 7.3 percent of the elderly eligible for assistance such as LIHEAP in 2003 actually received it.[11] Further, many households which would not generally be considered low-income also face circumstances which make it difficult for them to pay their energy bills.

Weatherization services are often seen as the best solution for households living in fuel poverty. As Power and Clark (2005) state, "There is a far stronger connection between housing [condition] and the incidence of energy hardships than between income and non-payment of bills." Their findings emphasize the need for roof repairs and electrical work as weatherization investments. Weatherization produces savings in the form of avoided consumption and lower energy bills, or by diminishing increases in energy consumption that would otherwise occur. Power and Clark conclude that "a home in good repair is

[9] See "Utility-Financed Low-Income Energy Conservation: Winning for Everyone," a report published in 1991 by the National Consumer Law center.

[10] The figures on Fuel Poverty noted in this paragraph are from Meg Power's "Fuel Poverty in the USA: The Overview and the Outlook," published in the March 2008 issue of Energy Action.

[11] See Bruce Tonn and Joel Eisenberg's "The Aging US Population and Residential Energy Demand," a report published in 2007 in Energy Policy. This report also finds that elderly persons generally use more residential energy than younger persons.

significantly less likely to run up bills beyond the resident's means."[12] In fact, a 2001 study by the U.S. Department of Energy concludes that "low-income families who receive weatherization have a lower rate of default on their utility bills and require less emergency heating assistance."[13]

The benefit of weatherization services are not just related to reduced energy consumption and bills, or reduced collection costs by utilities. These services are usually administered through a network of local agencies and subcontractors. Thus, weatherization programs produce jobs in the local economy. Additionally, weatherized homes provide a healthier environment for residents. To the extent that families can avoid service termination and resorting to unsafe alternate sources of heat, public safety is increased. Further, as the quality of housing stock increases, property values are improved.

The Increasing Need for Energy Assistance in Pennsylvania

Pennsylvania has the sixth largest population in the United States. However, its proportion of elderly residents is the second largest in the country. While the number of elderly is growing, the Commonwealth's population has remained relatively stable at about 12 million since 1970.[14] In addition, its housing stock is also aging. Since 2000, Pennsylvania has ranked as the sixth lowest state in new housing construction in the country.[15] It is not uncommon in Pennsylvania for payment troubled, low-income families to live in substandard housing. Both of these trends have strong impacts on the growing energy burden of Pennsylvania's low-income population, the percent of households in fuel-poverty, and the increasing need for energy conservation and energy efficiency in general, and for weatherization services in particular.

Although Pennsylvania has a number of energy efficiency initiatives, there is room for considerable improvement. In many ways Pennsylvania lags behind its neighboring states in the northeast and mid-Atlantic regions, spending less per capita on energy efficiency than either New Jersey or New York.[16] Further, while New York and New Jersey are fifth and sixth on the list of the nation's leading cost-effective energy efficiency programs, Pennsylvania is the only state in the northeast not to have Energy Efficiency Public Benefit Funds.

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[12] These quotes are from a paper presented by Meg Power and Jennifer Clark at the National Weatherization Training Conference, 2005: "Weatherization-Plus for Payment-Troubled Energy Customers: Can It Solve Utility Bill Collection Problems?"

[13] The study, "Weatherizing the Home of Low-Income Home Energy Assistance Program Clients: A Programmatic Assessment," by Bruce Tonn, Richard Schmoyer, and Sarah Wagner, finds that the need for LIHEAP does not diminish, but the need for crisis funds does.

[14] These statistics are from the 2000 census. Since the 1990's, Pennsylvania's population growth rate of 3.4 percent is higher than only two other states – West Virginia (0.8 percent) and North Dakota (0.5 percent).

[15] Data on housing stock and new construction are from a 2007 report by The Pennsylvania Housing Research Center, "Potential Benefits of Implementing a Statewide Residential Energy Efficiency Program in Pennsylvania."

[16] Figures reported by Liz Robinson, Executive Director of the Energy Coordinating Agency in Philadelphia, at the ACI Pennsylvania Home Energy Forum in Harrisburg, September 5, 2007.

WINS
Workforce Innovation Networks

Private Employers and Public Benefits

By Geri Scott, Jobs for the Future

Prepared for Workforce Innovation Networks—WINs

PART OF A SERIES OF REPORTS ON ENGAGING EMPLOYERS IN WORKFORCE DEVELOPMENT

JOBS FOR THE FUTURE
CREATING STRATEGIES for Educational and Economic Opportunity

As a great deal of research has documented, many low-income workers fail to take advantage of benefits for which they may be eligible, including tax credits, food stamps, medical insurance, housing subsidies, and transportation resources, among others. One strategy for improving access to and the use of these benefits is to provide them through the employers of low-income workers.

With funding from the Annie E. Casey Foundation, the three partner organizations in Workforce Innovations Networks—WINs—investigated the value of this approach. Between January and June 2003, Jobs for the Future, the National Association of Manufacturers' Center for Workforce Success, and the U.S. Chamber of Commerce's Center for Workforce Preparation conducted research on employers' knowledge of and experiences with public benefits for low-income families, including benefits aimed directly at increasing employers' hiring and retention of workers from low-income families.

Private Employers and Public Benefits builds upon the work of WINs since the mid-1990s to explore and develop the role of employer organizations as workforce development intermediaries, with funding from the Annie E. Casey, Ford, and Charles Stewart Mott foundations and the U.S. Department of Labor Employment and Training Administration. This report also parallels and draws upon a broader WINs research agenda to probe the question of how to improve the ability of the public workforce development system to meet employer needs. Conducted in 2003 on behalf of the Department of Labor and the Ford and Casey foundations, that larger project entailed two national surveys—one of employers, the other of low-wage workers—as well as focus groups with employers who are actively involved in workforce development programs and over 100 interviews with employers, federal, state, and local policy analysts, and representatives of employer associations and workforce development intermediaries. *(See Appendix A for a list of interviewees.)*

Staff from Jobs for the Future, the Center for Workforce Success, and the Center for Workforce Preparation conducted interviews in person and on the telephone, covering diverse topics regarding employer involvement with workforce development. WINs probed the topic of public benefits with additional questions for employers and other stakeholders, asking whether the interviewees helped employees obtain any of four benefits on a list sent to them before the interview: the Earned Income Tax Credit, the Child Care Tax Credit, food stamps, and Medicaid and State Child Health Insurance Plans. We also asked if the employers—or, in the case of other stakeholders, their employer partners—were aware of any of four benefits aimed at businesses: the Work Opportunity Tax Credit, the Welfare to Work Tax Credit, the Empowerment Zone Employment Credit and the Renewal Community Employment Credit. Finally, we asked interviewees to describe their experiences with the benefits and why they had or had not accessed any of the benefits for employers or low-wage workers. *(See Apendix B for the list of public benefits provided to the interviewees.)*

We also conducted a Web-based search of foundations, government agencies, policy analysis organizations, advocacy groups, and media reports concerning the use of public benefits by the working poor and by employers. In the course of designing this research, the WINs partners decided to ask employers about two categories of public benefits for low-income individuals: tax credits to employers designed to encourage the hiring and retention of certain target groups and income supplements for low-wage workers, ranging from tax credits to direct subsidies.

While the original focus of this project was employer engagement in public benefits for low-income workers, we found that employers were more responsive to the research when the topic was linked to benefits for them. Throughout our interviews, we found that employers treated all these benefits as a block. Their attitudes toward and understanding of public benefits did not distinguish between tax credits aimed at them as employers and tax credits or other subsidies aimed at low-income workers. In consequence, this report treats both categories of benefits together. To illustrate points, we use comments about employer-oriented tax credits in the same discussion as observations about worker-oriented benefits because that is how employers perceived and talked about them.

Underuse of Public Benefits Is a Problem

When most people hear about the idea of marketing public benefits through employers, their initial reaction is, "Why would a company want to get involved in a social service program?"

In fact, employers have good reason to be concerned that large numbers of working people with low family incomes do not take advantage of the public benefits intended to help them and their families achieve economic sufficiency—benefits that also help employers by contributing to the economic stability of their workforces. These public benefits bolster the ability of low-income workers to meet their basic needs, in effect providing a wage supplement to employers. For example, according to research in New York City conducted by Wider Opportunities for Women and the Women's Center for Education and Career Advancement, income supplements of child care subsidies, food stamps, and Medicaid provide the economic stability of an $18.43 hourly wage to a single parent with two children who earns $8.04 per hour (Pearce 2000).

Consider also the Earned Income Tax Credit, which can reduce the tax liability of households with incomes up to $40,000 by as much as $4,140. For some low-income recipients, the tax credit represents as much as 40 percent of annual take-home income. According to the National Tax Association, 83 percent of low-income workers in a 1999 study used their increased tax refunds to pay a bill, and 73 percent used it help stabilize their lives with purchases, such as repairing or buying a car to get to work (Smeeding, Phillips, and O'Connor 2000).

Yet each year, according to the Center on Budget and Policy Priorities, "hundreds of thousands of eligible workers fail to claim their Earned Income Tax Credit" (Masiarchin 1999). In 2001, the Government Accounting Office's *Report on EITC Eligibility and Participation Rates* estimated that only 62 percent of eligible families with three or more children applied for this benefit, while 93 percent of eligible households with only one child applied for it—and only 45 percent of eligible households with no children applied for EITC (GAO 2001). The same could be said for other public benefits designed to help low-income working families improve their economic stability. According to a 2002 study by the Food Research and Action Center, only 48 percent of eligible working families received food stamps in 1999 (Hayes 2002).

This not only hurts the workers who miss out on income and benefits; it also hurts their employers through higher turnover and increased absenteeism. Unreliable transportation, inadequate child care, and poor health are leading contributors to absenteeism, tardiness, and turnover among low-income workers. An evaluation of TANF leavers in New Jersey by Mathematica Policy Research reported that 52 percent had been fired as a result of frequent tardiness or absenteeism related to child care or health problems (Rangarajan and Johnson 2002). In the words of a call center manager who has hired many entry-level workers through the Annie E. Casey Foundation's Jobs Initiative, "These people's lives are in chaos. They have so many problems they cannot pay attention to work."[1]

An unpublished survey conducted by ASE in Detroit, Michigan, highlights workplace problems that employers can experience when employees' non-work needs are not addressed.[2] ASE asked entry-level workers and their supervisors in five companies about barriers to employee advancement. After "caring for a dependent," "money problems" were reported more frequently than 19 other potential problems ranging from "understanding work assignments" to "getting along with colleagues." "Financial worry about making ends meet" appears to contribute to absenteeism, distraction on the job, strained relations with supervisors and co-workers, and a number of other factors that can reduce productivity.

Clearly, it is in employers' self-interest to help low-income workers overcome such problems. The Welfare to Work Partnership, along with myriad others, reports that former TANF recipients who take advantage of child care, transportation, housing assistance, food stamps, Medicaid, and the EITC experience significantly less hardship in the form of homelessness, the use of food pantries, trouble paying for medical and dental care, and domestic violence issues (Relave 2002a). The Urban Institute found that TANF-leavers who had access to both Medicaid and food stamps were more than twice as likely to remain employed as were those without both benefits (Loprest 2002). Similarly, the Brookings Institute found that TANF-leavers with housing subsidies were more likely to stay off welfare than were those without the benefit (Sard and Waller 2002).

It's not just benefits for employees that are underused. The same is true of public benefits for employers, particularly tax credits that encourage them to hire and

Public benefits bolster the ability of low-income workers to meet their basic needs, in effect providing a wage supplement to employers. Financial worry about making ends meet contributes to reduced productivity on the job.

retain low-income individuals. These credits, which provide up to $8,000 over two years in reduced tax liability, are intended to encourage companies to hire and retain workers who might otherwise appear to be a financial risk due to high training costs. The credits provide a clear and direct financial benefit, reducing corporate income tax liability for every eligible worker hired and retained.

Yet a Government Accounting Office study (2001) found that in Texas and California, only 3 percent of participating employers were responsible for 83 percent of Work Opportunity Tax Credit hires. Most companies using the program were large employers in the retail and non-financial services industries, with gross receipts in excess of $1 billion. The small to medium-sized firms that are often the major source of employment for first-time workers take limited advantage of wage subsidies designed to reduce the financial costs associated with hiring inexperienced workers.

What the WINS Research Reveals

With direct and indirect financial benefits available for the taking, why don't more employers and more workers gladly and widely take advantage of them? We found three broad causes:[3]

Awareness: Overwhelmingly, employers are unaware of tax credits or any of the other benefits available for low-income workers. Moreover, what employers do "know" about these benefits is often incorrect.

Access: States' procedures often make it difficult for employed people to access benefits, and varying processes from state to state make it difficult for companies to provide good information to their employees.

Marketing: The strategies for informing the public about these benefits rarely target employers, in content or language, or as an audience.

Awareness

Low awareness is a major factor contributing to the under-use of public benefits by both low-income workers and their employers. These benefits are poorly recognized, often misunderstood, and perceived to be either difficult to use or beyond an employer's proper role.

Despite the commitment, concern, and resources that have been expended—by government, non-profit organizations, and others—to promote awareness, acceptance, and utilization of both employee and employer public benefits, the message has neither been delivered nor heard. The vast majority of employers interviewed did not know about the wide array of public benefits. Time and again, employers said they "had never heard of" or "don't know anything about" the benefits, whether for employees or employers. A few employers had heard of one or more of the employee benefits but not the employer benefits, and vice versa. Other categories of respondents said variants of "No one knows about them."

Interviews further suggest that the message does not reach employees either. No employers said that their employees had requested assistance in obtaining any worker benefits.[4] This includes the Advance EITC, which could directly increase workers' take-home pay. With Advance EITC, the employer "advances" the worker the amount of the tax credit in the paycheck, so the worker doesn't have to wait to receive it as part of his or her annual tax refund. This can increase a family's take-home pay by as much as $115 per month without any change in hourly wage (Masiarchin 1999). One consequence is to increase the size of the labor pool from which companies can recruit entry-level workers, at no cost to employers in recruitment, wages, or benefits.[5]

Employers believe that neither they nor their workers would be eligible for public benefits.

Employers often assume incorrectly that they and their workers probably are ineligible for the public benefits covered by this study. For instance, several employers paying $12 an hour and more said they didn't bother with EITC because "our wages are too high." In fact, as employers were often amazed to find out, working parents earning as much as $17 an hour could receive over $4,000 a year in EITC. Many families with incomes well above the federal poverty level are eligible for public subsidies to help them improve their economic stability.

Many employers who are aware of public benefits mistrust them.

Employers express concern about the possibility of liability or some other problem they might encounter from advising or assisting employees on income taxes, including the EITC, or on government subsidies such as food stamps. And they are concerned that dealing with these benefits may in some way be unwelcome by their workforce. Said one employer, "Our unions have raised concerns about these subsidies."

Employers often assume incorrectly that they and their workers probably are ineligible for the public benefits covered by this study.

Not only is there mistrust about the administration of public benefits, there is mistrust of their purpose as well, a mistrust that some workers may share. According to an employer, "With regard to public benefits, there is a stigma attached to welfare-to-work people and those people you need to give benefits to. That's not fair, but it's there."

The Advance Earned Income Tax Credit would seem to offer employers an immediate benefit: it acts, in effect, as a wage subsidy for their low-income workers. Yet companies are reluctant to offer Advance EITC. None of the employers interviewed said that their assistance on Advance EITC had been requested. This is consistent with national studies, which indicate that only about 1 percent of all EITC benefits are paid out through Advance EITC.

"Companies don't seem very interested in implementing Advance EITC programs," said the executive director of Origin, Inc., a national workforce intermediary.[9] He told of one employer's resistance, highlighting several reasons employers shy away from getting involved with public benefit programs:

> *I tried to interest a pharmacy chain in [Advance EITC] as a way of giving their workers bigger take-home checks at no cost to the company. They thought it was going to be more work than it was and were afraid that they would encounter some kind of liability if there were any mistakes. It's a government program and therefore risky to get involved with. Furthermore, in the company's opinion, the workers who were eligible could get the credit on their own, so there was no need for them to get involved.*

Within a company, the people who are most knowledgeable about individual workers are often not the ones who are informed about tax credits and other public benefits for employers and employees.

Tax credits for employers are an indirect—and ineffective—strategy for accomplishing their intended goal: increasing employment opportunity for designated groups. Hiring supervisors neither administer tax credits nor receive bottom line credit for them, but they *are* held accountable for their staffs' productivity and overall performance. The WINs research found that companies that took advantage of employer tax credits often outsourced the task to a consultant who automatically submitted a Work Opportunity Tax Credit application for every new hire. Supervisors and human resource departments never knew which employees were eligible for tax credits. Consequently, the potential tax benefit could not enter into the "financial package" they could offer in order to hire or retain a worker.

Access

Overcoming the awareness barrier is a significant—but insufficient—step toward increasing both employer and employee use of public income supports.

Many procedural and regulatory barriers make it difficult for either employers or low-income workers to learn about, apply for, or receive public benefits. Small employers, in particular, find it difficult to become knowledgeable about eligibility guidelines and to navigate the documentation requirements of programs that could help them provide competitive employee benefits. In other words, far too often the "benefit" does not justify the "cost."

Employers view state procedures as bureaucratic and unresponsive.

Smaller employers are especially likely to perceive these public benefits as complex, difficult, and time-consuming to access. Coping with public bureaucracies that they consider unresponsive is "just one more thing to do that I don't need." A typical comment: "You know, I'm so busy that I just don't know about all these kinds of things and can't take time to figure them out."

Some employers think that helping people access public benefits may intrude into their employees' personal [illegible]

Despite the advantages that will accrue to their businesses from better accessing public benefits, employers say they are wary of treading into the personal affairs of their workers. Yes, many will take action if substance abuse impairs worker effectiveness and employability, but getting involved in a worker's personal finances is a highly sensitive matter that often lacks the clear workplace impact that would justify employer involvement. This is certainly true with respect to an employee's taxes—and EITC is an income tax refund.

Interviews with staff members of One-Stop Career Centers and Workforce Investment Boards provide additional evidence of this barrier. Promoting access to public benefits is clearly within the mission of such organizations, but these staff members are reluctant to talk to employers about benefits for employees. Observed a One-Stop staff member who is responsible for employer services, "We don't really push employers to use public benefits except EITC, but that was through TANF. Employers are uncomfortable with this concept, wondering 'Is this my job to help these people get benefits? Or to provide this type of information?'"

This evidence points to the need for raising awareness around public benefits among employees as well as among employers.

The value of the benefit is insufficient to offset the cost of the disruption of a risky hire.

An exception was a store manager who takes advantage of some public benefits, yet even he cited difficulties in the process: "We have stores in some poor areas and have a lot of low-wage people, so we have a couple of staff who do the administration on this. That's needed because these applications are complicated and the jargon scares store managers so we have to help them to realize the benefits."

A manufacturing company vice president told a similar story. His human resources manager "knows all about public benefits because she is involved in the system and she uses EITC. Nonetheless, she thinks it's bureaucratic, regimented, and cumbersome."

Another interviewee brought home the difficulty employers face even in taking advantage of benefits aimed directly at them: "If we call that toll-free number they advertise for the Work Opportunity Tax Credit, we get no response. What these workforce training programs ought to do is send their people out with all the forms when they refer people, but they don't."

More typical were those respondents who felt that the benefits were modest compared to the difficulty of taking advantage of them: "Frankly, they're not worth the hassle you have to go through."

In fact, the value of the benefit is insufficient to offset the cost of the disruption of a risky hire. The cost of turnover is estimated at 150 percent of the annual salary of the position to be filled, much greater than the 50 percent of first year's salary tax credit. Several employers indicated that tax credits were unlikely to influence their hiring decisions; they would always hire the best applicant rather than take a perceived risk on what might be an unqualified worker. When the executive director of Origin, Inc., tried to market the Work Opportunity Tax Credit to employers as a job-retention tool, he was informed that "it is no kind of incentive to keep a subpar worker. The supervisor has no idea whether someone is eligible for a credit, and no HR manager is going to encourage a supervisor to keep an under-performing worker to get a tax credit."

Regulations often discourage use.

State procedures often make it difficult to apply for public benefits. For the Earned Income Tax Credit, a federal program, the employee simply applies as part of filling in a federal income tax return, but other benefits, both for workers and for companies, are handled quite differently by different states. There is little consistency, for example, in how states certify workers for the Work Opportunity Tax Credit. In some states, this is handled by non-profit organizations that refer low-income individuals to jobs; in others, the Employment Service does it directly. In some states, the certification application is a half-page form; others require extensive documentation, with applications full of warnings that often intimidate small companies.

Regarding worker benefits, the application processes often are not even standardized *within* a state. Different agencies might handle food stamps, Medicaid or SCHIPS, child care subsidies, and transportation and housing subsidies, with each agency having its own timetables and documentation requirements. States are not required to continue providing welfare-related benefits to former welfare recipients, and they have widely differing policies regarding who may receive benefits and for how long. States' re-certification practices for continuing worker benefits after leaving welfare range from every three months to a year; some states allow workers to apply online, while others require office visits lasting as long as five hours during work hours for each separate benefit, such as child care subsidy, food stamps, Medicaid or SCHIPS, or transportation subsidy (Relave 2002). A minimum-wage worker could lose up to 20 hours of work every quarter just to prove ongoing eligibility to receive these benefits (O'Brien et al. 2000).

Larger companies have professional staffs and top-tier accountants who often know about and can cope with benefit applications and procedures, and many workforce intermediaries contacted for this study reported that very large companies automatically checked whether new hires were eligible for tax credits. Small companies, on the other hand, were either unaware of tax credits or lacked a simple way to apply for them. According to an executive of the Michigan Chamber of Commerce, small businesses get short-changed in their efforts to receive what should be a basic service from the public system, such as information about tax credits for employers.

Small and mid-sized employers, who provide the bulk of the jobs held by workers eligible for these benefits, often express a feeling of being overwhelmed by the day-to-day challenges they face. Few of the small employers interviewed have full-time professional human resource staff. These companies often outsource personnel and payroll functions to vendors, or HR and payroll become collateral duties for someone with broader administrative responsibilities. While providing access to Medicaid or SCHIPS could fill a void in the ability of small employers to provide benefits, they have no effective way to learn about public benefits or to disseminate such information to their workers.