

Evaluation of LIPURP and other ALLEGHENY POWER Universal Service Programs

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October 28, 2003

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Summary

Allegheny Power asked The RETEC Group Inc (RETEC) to evaluate its Universal Service Programs and to focus on LIPURP, the Low Income Payment and Usage Program. RETEC interviewed program staff, observed operations, analyzed account data and program documents, and surveyed participants during the summer of 2003.

In 2002, Allegheny changed LIPURP from a membership program to a Low Income Budget Plan. All low-income customers seeking subsidies or payment arrangements are now sent to LIPURP. They may remain in the program as long as they remain income eligible. These changes are consistent with recent PUC recommendations. They led to rapid growth for the program. Allegheny now manages nearly 20,000 LIPURP customers and does so with friendly service and a low administrative cost.

Allegheny determines customer payment amounts using the Percent of Income algorithm the PUC developed in the early 1990s. Allegheny credits never exceed the annual subsidy limits recommended by the PUC. Therefore LIPURP provides a good “test case” to evaluate this program model. RETEC reached the following conclusions.

- LIPURP formulas target the greatest budget reductions and subsidy credits to the poorest households and those with the highest use. This leaves forty percent of participants (households with bills that are low relative to their income) paying their full budget bill with little or no subsidy. Most are able to do so, although some report difficulty.
- As customers join LIPURP most make more frequent monthly payments. By paying 11 or 12 months on time, roughly 30% will qualify for a regular payment award grant at the end of their plan year. This grant reduces their remaining pre-program arrears by 20%.
- While about 45% of LIPURP participants continue to pay intermittently (less than 7 times a year), most of these customers manage to catch up their payments, receive their matching grants, and in this way cover virtually all of their annual bill. Allegheny makes subsidy credits contingent upon customers paying their LIPURP budget amount, matching late payments as customers catch up. It appears this incentive and flexibility are very effective in avoiding revenue losses RETEC has seen in some other programs where subsidies are delivered by the utility but not “earned” by customer payments.
- For a small minority of LIPURP participants, those with the highest use and the lowest LIPURP payment amounts, the available matching credits are not sufficient to fill the gap between the reduced budget and the full bill. For these customers, the balance increases during the LIPURP plan year. If this trend continues, the 20% prompt payment reward is insufficient to reverse it. Increased use of LIHEAP by heating customers would help in many but not all cases.
- Despite slowly growing balances for a few customers, on the whole LIPURP succeeds in covering the retail bill with a combination of customer budget payments and grants from LIPURP and other sources. Given this result, LIPURP’s inclusive nature, its very low

administrative cost and its reasonable total cost of about \$233 per average participant RETEC concludes that LIPURP strikes a good balance between the needs of the poorest customers and the needs of the other ratepayers who subsidize them. However, RETEC believes the “slope” of the PUC-suggested payment scale is too steep, at least for larger households. We suggest adjustments to offer additional assistance to some households between 40% and 120% of poverty, many of whom are asked to pay the entire bill even when it is very high.

Looking to the future, we note some concerns and opportunities for improvement, and therefore suggest that Allegheny consider these four directions for change:

1) Better targeting of subsidies. The Percent of Income algorithm as it is now used by Allegheny is slightly but consistently biased against households with more than 2 members. It does not take into account variations in major household expenses such as housing and medical costs. Allegheny’s rates are relatively low. RETEC observes that many households with incomes below 150% of poverty can pay and do pay their Allegheny electric bill in full, particularly if their usage is modest, and/or they have assets and low expenses. Therefore we would not necessarily replace the PIP formulas with a formula that gives a discount to all comers. But we believe there may be better ways to target subsidy dollars to those who need them most, and we suggest several alternatives for further study.

2) More qualification. Dollar Energy, the agency administering LIPURP for Allegheny, asks only two percent of intakes to verify financial circumstances in a face-to-face interview, and rejects only one percent of applications as ineligible. Based on in-depth interviews with Allegheny customers and experience of other utilities, RETEC believes that as many as one third of LIPURP applicants may not qualify for all the benefits they now receive. Some customers are not disclosing all income sources in their household. We suggest more research into this issue, more face-to-face verification interviews, a signed agreement attesting to the accuracy of information given by the applicant, and collaboration with the PA Department of Public Welfare, which is also challenged by fraud and has more experience and resources to combat it.

3) More flexibility to deal with improving circumstances. CAP programs have been designed to assist the stable poor, households with a long-term inability to pay their bills. However, about half of the low-income households who cross LIPURP’s expanded threshold have fluctuating circumstances. They approach LIPURP during an unexpected or seasonal downturn, but often find ways to improve their situation before their year-long plan expires. Thus many participants find their payment amount jumps substantially when they recertify. We suggest that Allegheny consider mechanisms for matching assistance to transitory need. One option is a flexible recertification interval, such as 3, 6, 9, 12, or 18 months after a plan starts. (This could force a change in the way Allegheny calculates and applies its supplemental grants.) A related issue for customers whose circumstances improve is how Allegheny can smoothly move them into average billing, or into level two payment agreements to pay off their remaining balance.

4) Encourage conservation and discourage extremely high use of electricity. RETEC found that the longer customers remain in LIPURP, and the lower their budget amount, the more their bill increases. Over a several year period average LIPURP bills have increased over \$100 per year and have increased more than average residential bills. This appears to be due to usage

increases in both winter and summer. LIPURP packages its subsidy as a level budget amount determined by customer financial circumstances, leaving subsidized customers no financial incentive for conservation. Supplemental grants cover the cost of usage increases, even for customers paying their full estimated bill amount. A related problem is high and extremely high use by some customers, a problem that Allegheny's LIURP program apparently has not solved. (Half the long-term LIPURP heating customers with high and extreme use as of June 2003 have already been treated by LIURP in the last three years.)

We have deliberately chosen the phrase "directions for change" because these are inter-related issues. We have made recommendations to consider, but Allegheny will need to carefully plan ways that compatible recommendations can be integrated with one another and with existing constraints. When so many aspects of the program are working well, the adage "if it ain't broke, don't fix it" suggests that caution and careful planning are appropriate when considering any major changes.

Answers to Key Evaluation Questions

Pennsylvania regulators and utilities have agreed upon the following key questions for evaluations of Universal Service Programs.

Question	More Information:
<p>1. Do participants meet the specific eligibility criteria for the programs that serve them? On paper, all participants meet the eligibility criteria for Allegheny's USP programs. However, results of customer interviews suggest that a sizable minority of LIPURP participants have more income than they have disclosed.</p> <p>Is the appropriate population being served? Yes, LIPURP is open and very accessible to all customers with incomes below 150% of poverty level. There is no waiting list for LIPURP. The LIURP (usage reduction) program requires a year of previous residency. RETEC believes this requirement can be a barrier to program participation and suggests it be removed from all Pennsylvania LIURP programs.</p>	<p>Pages 29-30</p> <p>Page 23-25</p>
<p>2. What is the customer distribution for each Universal Service Program by poverty guidelines; 0-50%, 51-100%, 101-150%, and 151-200%? Most participants have incomes below 100% of poverty. Distributions for specific programs are given in the report.</p>	<p>Pages 29-30</p>
<p>3. Are there barriers to program participation? There are few barriers to participation in LIPURP, perhaps too few, (RETEC suggests customers sign a copy of their financial statement to receive a subsidy). The one-year residency requirement is a barrier to use of LIURP.</p>	<p>Pges 23-25</p>
<p>4. Generally, do participants' energy burdens comply with the LIPURP Policy Statement regarding the percentage of household income spent on energy services? All LIPURP budget amounts conform to the Policy Statement. However, RETEC believes the percents to pay promulgated in the policy statement are biased against households with more than 1 or 2 members. We suggest making adjustments for family size.</p>	<p>Pages 19,20</p> <p>Appendix A</p>
<p>5. Identify barriers to program recertification. There are no significant barriers to recertification. Customers receive adequate warning concerning the upcoming need to recertify. Those who do not respond in a timely fashion may respond later, as they perceive the need.</p>	<p>Page 26</p>

<p>6. What are LIPURP retention rates? Why do customers leave LIPURP? LIPURP is no longer a membership program, so customers are not dropped for failure to pay regularly. Retention rates are therefore high. Customers remain until they:</p> <ul style="list-style-type: none"> a) die, move, and/or close their account (25% per year, many of whom rejoin at another address); b) have service terminated for more than ten days (extremely rare); c) drop out at recertification time, or disclose income sufficient to disqualify themselves (8-10% per year). 	Page 35
<p>7. Is there an effective link between participation in LIPURP and participation in energy assistance programs (LIHEAP, hardship funds, and other grants)?</p> <p>The link is fairly effective. About 50% of income-eligible residential heating customers in LIPURP use LIHEAP cash grants, and that percentage is slowly increasing over time. Customers are encouraged to use hardship funds when they cannot pay their budget amounts, and they do.</p> <p>How effective are LIPURP control features at limiting program costs? Allegheny provides no more than \$560 or \$1000 per customer in subsidy credits. Any additional shortfall accrues on the customer's balance. There is no control on increased usage, and for subsidized customers little incentive to conserve. This could explain the observed increase in usage among the LIPURP customers with deep and long term subsidies.</p>	<p>Page 51</p> <p>Page 46</p>
<p>8. How effective is the LIPURP and LIURP link? LIPURP customers with high use are quickly referred to LIURP. 50% of current high users have been treated in the last three years; many others were treated earlier. The combined efforts of both programs do not, however, appear to be very effective in reducing high use.</p>	Page 50
<p>9. Does LIPURP participation improve payment behavior (number of payments, percentage of bill paid, \$ amount paid)? Yes, on all counts:</p> <p>60% of first-year LIPURP participants make more frequent payments after making their LIPURP plan. Another 15% were already paying nearly every month and continue to do so.</p> <p>The amount paid increases by around \$100 per year on average.</p> <p>The average percentage of bill paid increases, even though average bills increase.</p>	Page 45

10. Does participation in Universal Service Programs reduce arrearages? Total and average arrearage is reduced. However, for some customers with low PIP payments and high use, the available subsidy credits are insufficient to cover shortfall and balances can grow for these customers, especially if they fail to use LIHEAP.	Page 40
11. Does participation in Universal Service Programs decrease service terminations? There is no clear evidence that LIPIURP or LIURP decrease service terminations. Since the Hardship (Dollar Energy) program is used by customers facing termination, its major impact is to prevent and thus decrease service terminations.	Page 47-48
12. Does participation in Universal Service Programs decrease collection costs? Yes. Participation on LIPURP reduced collections costs by \$20-\$24 per customer per year.	Page 47
13. How can Universal Service Programs be more cost-effective and efficient? Fine tune the formulas or procedures used to determine payment amounts and subsidies. Use selective and collaborative methods to discourage fraud and high use. Develop mechanisms to deal with the many households whose circumstances are likely to change in less than a year.	Pages 52-66

1. Introduction

1.1 Scope and Goals of Evaluation

Allegheny Power (Allegheny) asked the RETEC Group, Inc. (RETEC) to assess its operation of several mandated Universal Service Programs that assist low-income customers. This evaluation is focused primarily on Allegheny Power's Customer Assistance Program LIPURP (Low Income Payment and Usage Reduction Program). The evaluation fulfills a PUC requirement that these programs be periodically reviewed by independent evaluators.

The purpose of this evaluation is to ensure that LIPURP and other universal service programs are operating as the PUC's Bureau of Consumer Services (BCS) intends, are having the anticipated results, and are operating as efficiently as possible. To promote efficiency, evaluators should identify any ways that benefits can be delivered at lower overall costs, or ways that benefits can be increased without substantially increasing costs. To conduct this evaluation, the RETEC team reviewed Allegheny reports and interviewed program staff from Allegheny and collaborating social agencies. Evaluators conducted in-depth telephone surveys with over 40 relevant customers, and also analyzed account records for approximately 16,000 low-income /high-debt customers.

Organization of Report

The remainder of this introduction briefly describes the Allegheny Power Service area and its low-income households who are the clientele for the Universal Service Programs. It also describes the Universal Service Programs. The rest of the report is organized in several major sections:

Section Two. Evaluation of Program Operations

Section Three. Evaluation of Account History and Program Outcomes

Section Four. Assessing Other USP Programs

Section Five. Conclusions and Recommendations

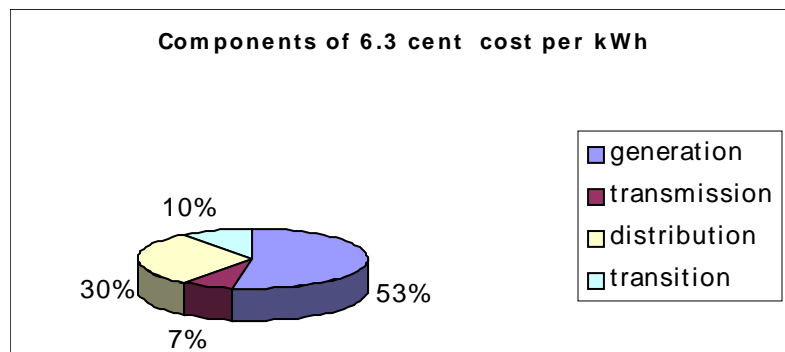
Within each section, Figures are numbered consecutively (2.1, 2.2, 2.3 etc.).

1.2 Evaluation Context: The Allegheny Power Service Area

Residential Customers, Rates and Usage Levels

Allegheny distributes electricity in five states, and serves over 645,000 residential customers in many Central and South Western Pennsylvania counties. In the spring of 2003, both heating and general service residential customers were charged about 6.3 cents per kilowatt-hour (kWh), plus a \$5 per month customer charge. About 8% of the total charges are eventually paid by Allegheny as Pennsylvania taxes. The Gross Receipts tax alone accounts for almost 6% of residential bills.

Figure 1.1 Components of the Residential Rate



Analyzing account data for a random sample of 2,000 Allegheny Pennsylvania residential customers, RETEC found that:

- 16% are labeled as all electric customers (electric heat);
- 23% are general (non heat) customers with electric hot water heaters; and
- 60% are general service customers without electric water heat.

Figure 1.2 Average Bills for Residential Customers

Rate Group	Median Monthly Bill	Average Monthly Bill	Median Monthly Use	Average Monthly Use
General Service	\$46.36	\$52.08	654	745
Water Heat	\$62.74	\$66.34	895	960
All Electric	\$100.95	\$106.13	1,524	1,608

An examination of average bills for these groups suggests that above-average use is one cause of payment problems. As shown in Figure 1.3, customers with payment arrangements have higher average bills compared to other customers in their rate group.

Figure 1.3 Average Use for Customers on Payment Arrangement

Rate Group	Average Monthly Bill	Percent of Group on Payment Arrangement	Their Average Bill	Compared to group average
General Service	\$52.08	3.2%	\$67.04	30% higher
Water Heat	\$66.34	7.1%	\$83.72	29% higher
All Electric	\$106.13	7.3%	\$119.59	14% higher

These results and RETEC's experience with other utilities suggest it will be useful to classify accounts according to their relative level of electric use. For the purpose of this evaluation, RETEC classified accounts into four levels of use (low, moderate, high, and extreme) as shown in Figure 1.4. The thresholds were chosen so that roughly 70% of each rate group would be classified as either relatively low or moderate users of electricity.

Figure 1.4 Relative Usage Levels Defined by RETEC for Residential Customers

Relative Usage Levels Defined by RETEC from Random Sample of Residential Accounts					
Average Monthly Bill	Residential Service		RS with Water Heat		RS with Heating
low	below \$30	26%	below \$45	27%	below \$60 26%
moderate	\$30 to \$60	44%	\$45 to \$80	44%	\$60 to \$120 43%
high	\$60 to \$90	21%	\$80 to \$110	21%	\$120 to \$180 21%
extreme	over \$90	9%	over \$110	8%	Over \$180 10%

Using average monthly bills for a random sample of all Pennsylvania residential customers RETEC determined average bill threshold amounts that divided each rate group into four levels:
 Low users (the 25% of each rate group with the lowest average bills);
 Moderate users (the next 45% so that lowest 70% of bills are considered low or moderate use);
 High users (the next 20% of bills); and
 Extreme users (the highest 10% of bills)

RETEC then analyzed the average debt among customers with an accounts receivable balance, in terms of these usage levels. The table in Figure 1.5 shows a very strong relationship between high use and high debt.

Figure 1.5 Debt by Usage Level

Use Level	Residential Service		RS with Water Heat		RS with Heating	
	Bill Range	Avg. Debt*	Bill Range	Avg. Debt*	Bill Range	Avg. Debt*
low	below \$30	\$34.80	below \$45	\$113.49	below \$60	\$58.68
moderate	\$30 to \$60	\$80.28	\$45 to \$80	\$130.58	\$60 to \$120	\$227.77
high	\$60 to \$90	\$183.09	\$80 to \$110	\$167.02	\$120 to \$180	\$453.38
extreme	over \$90	\$382.34	over \$110	\$483.86	Over \$180	\$431.65

*For customers with debt

Pennsylvania has utility customer protections that are arguably the strongest in the nation, giving Pennsylvania utilities limited collections leverage to force payment of overdue amounts. Fewer than one percent of the 2,000 customer residential random sample have experienced a disconnection for nonpayment at their current account. 78% of the random sample are current and have no debt. However, the customers who do have payment problems can develop substantial debts. Five customers in the sample owe more than \$2,000 to Allegheny; one owes over \$5,000.

- General Customers were 60% of the sample, 52% of the debtors, and held 38% of total debt.
- Water Heat Customers were 23% of the sample, 21% of the debtors, and held 20% of total debt.
- Heating customers were 16% of the sample, 27% of the debtors, and held 42% of the total debt.

Low Incomes in the Service Area

RETEC analyzed the recently released Census Public Use Micro Sample to profile service area households with incomes below 150% of poverty level (and therefore eligible for Universal Service Programs). About 19% of Allegheny's residential customers (or 123,000 households) have incomes placing them below 150% of the poverty level¹. In 2000 (when the census information was gathered), of service area low-income households:

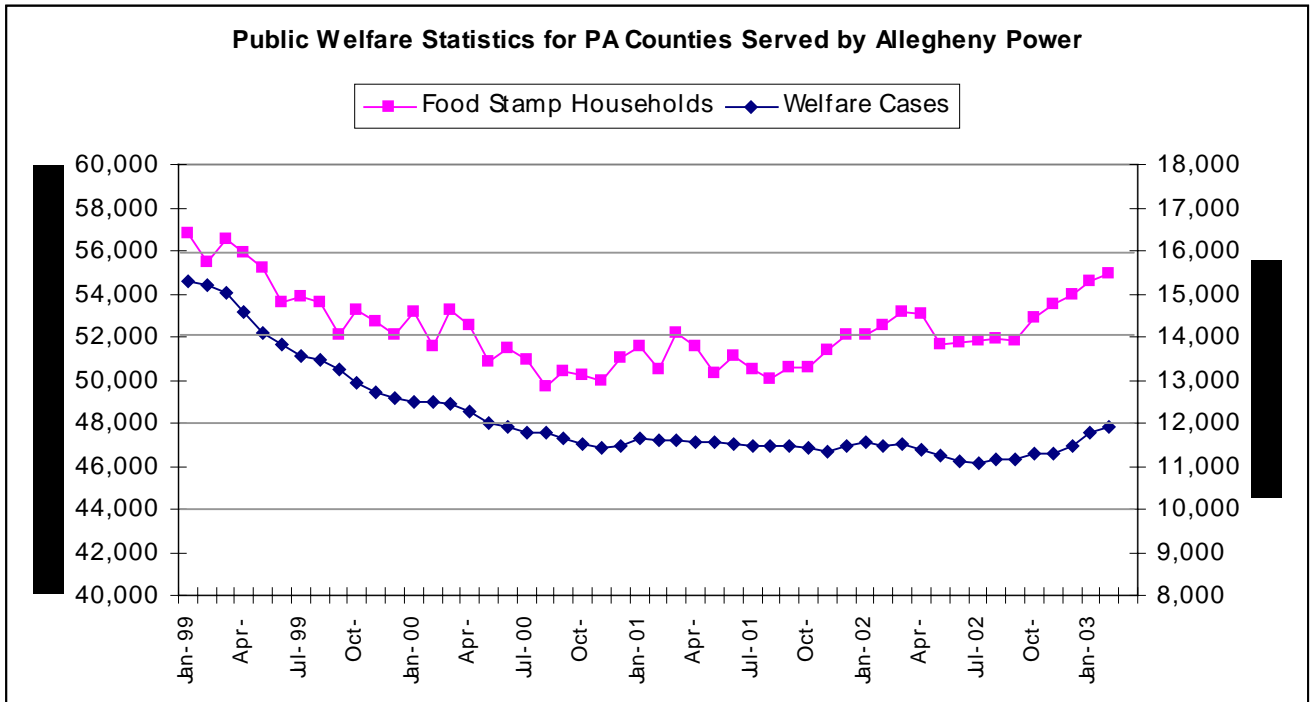
- 33% had members over 64; 36% had children; 31% had neither seniors nor children; 1% had both seniors and children present;
- 23% are owners with a mortgage, 33% are owners with no mortgage, and 44% are renters;
- 47% of the low-income households paid less than 40% of their income for housing costs; 26% paid more than 80% of their current income for housing costs, and 9% had or reported no income at the time;
- 31% live in multifamily buildings; 56% live in single-family buildings; 13% live in mobile homes.

Given 120,000 "low-income" households in the service area, the LIPURP program is currently serving/managing less than twenty percent, and many LIPURP participants are paying their full budget bill. These estimates underscore the fact that the majority of low-income households do not have payment difficulties, and suggest that the single variable of income (alone or by poverty level) is not a reliable indicator of poverty or need.

¹ Ignoring low-income individuals living in group quarters, 21% of the households have incomes below 150%, but only 92% of these pay an electric bill, due to master metering of large apartment buildings such as senior housing apartments.

The rising food stamp case load for Allegheny-served counties shows economic conditions deteriorating, coincidentally at the same time that LIPURP has grown rapidly due to revisions in program design.

Figure 1.6 Welfare Statistics for Service Area Counties



(While 55,000 households use food stamps in counties at least partially served by Allegheny, the number of Allegheny Power customers receiving food stamps is likely to be far lower. Some food stamp recipients do not pay an electric bill. Many of the counties served by Allegheny are also served by other electric utilities.)

1.3 Universal Service Programs

To complement its strong seasonal and procedural protections against termination for nonpayment, Pennsylvania has evolved and now mandates three different Universal Service Programs to help low-income customers obtain energy they can afford.

- Low Income Usage Reduction Programs (LIURP) provides weatherization and efficiency improvements designed to reduce the energy bills of low-income households with incomes below 150% of the federal poverty level. Allegheny Power's LIURP program offers improvements to low-income households with loads greater than 8,000 kWh per year. A new mandated pilot program promotes solar water heating and photovoltaic systems.

- CARES offers referral services to long-time good-paying customers who due to misfortunes suddenly find themselves no longer able to cover all their bills, and needing to negotiate an unfamiliar social services network. Allegheny currently has one CARES representative covering its Pennsylvania service territory.
- Customer Assistance Programs (CAPs) offer reduced rates or reduced payment amounts to customers with incomes below 150% of poverty who are unable to pay their bills in full. CAPS also offer forgiveness of past debt in exchange for regular payments of the reduced bill. LIPURP is Allegheny Power's Customer Assistance Program, and is the main topic of this evaluation.

Like many Northeastern utilities, Allegheny also supports a community-based fuel fund named Dollar Energy. This is a non-mandatory effort funded by stockholder, employee and customer donations. Dollar Energy provides grants no more than once a year to households with incomes below 200% of poverty who face temporary financial problems that result in threatened or actual disconnection of utility service. Typically these grants are available and used in the spring, when the Pennsylvania winter service protections lapse. Allegheny matches the grants it receives with shareholder funds up to \$150,000. The result is a maximum credit of \$400 per program year to the customer's account.

Taken together, Pennsylvania's service protection regulations and its Universal Service Programs form an *energy assurance* system. The goal of this system is to ensure that low-income households will have affordable and uninterrupted access to energy utility service, without imposing undue costs upon all ratepayers. Our goal as evaluators is to assess the benefits and costs of Allegheny Power's Universal Service Programs, to identify any ways that benefits can be delivered at lower overall costs, or ways that benefits can be increased without substantially increasing costs.

Total costs for this system of energy assurance are shown in Figure 1.7 on the next page. If there are roughly 30,000 low income customers with payment problems, the average cost of serving these households is about \$375 annually, and the burden on rate payers amounts to about \$1.45 out of each month's electric bill.

Figure 1.7 Transferred Costs of Service for Allegheny Power

Allegheny Costs Related to Serving Low-Income Households with Payment Problems or Payment Arrangments		
		2002
Write-offs (company estimate of low-income portion)		\$2,905,652.00
LIPURP shortfall credits (included in write offs)		\$2,189,144.00
LIURP debt forgiveness credits (also included)		\$132,172.57
LIPURP Administrative Costs		\$465,354.00
LIURP Program Costs		\$2,217,965.00
CARES Program Costs		\$177,667.00
Hardship Program Admin Costs (shareholders)		\$30,000.00
Ratepayer and Employee contributions		\$204,569.00
Collections Expenses		\$5,714,908.80
(RETEC assumes 40% of total for low income)		
Total Ratebase expense (exclude Hardship)		\$11,276,977.80
Residential Customers	645,000	
Cost per year per avg rate payer		\$17.48
Cost per month per avg rate payer		\$1.46
Assuming 30,000 low income customers with payment issues, cost per each of these customers		\$375.90
Source: Allegheny Power Universal Service Report to PA PUC		

1.4 LIPURP Program Description

Current Program Design

The PUC has asked that this periodic review of Universal Service Programs be focused primarily on LIPURP. This focus is desired because CAP programs are large budget programs, fairly complex, relatively new, and still evolving. The other large budget program, LIURP has a longer track record as well as a separate evaluation protocol and evaluation resources. The pilot program of solar water heaters and photovoltaic systems also has a separate evaluation effort.

LIPURP offers eligible customers a budget payment amount deemed to be affordable, an amount that may equal the average monthly bill or a lesser amount determined as a percent of customer household income. Customers are asked to pay this budget amount (plus five dollars per month if there is a balance on their account). When for a given month customers pay the amount requested of them and their bill for the month exceeds the amount they paid, Allegheny applies a credit that covers the rest of that month's bill, so long as sufficient funds remain in a supplemental account established for that purpose. If the supplemental account is empty, the unpaid portion of the bill is added to the balance.

This supplemental account is funded in three ways:

- 1) Carryover of excess payments from previous months. For example, if the monthly budget calls for a \$50 payment, and September's bill is only \$35, when the \$50 is paid the unused \$15 is added to the supplement bucket to use for future months when the bill is higher than \$50.
- 2) LIHEAP cash grants are also added to this budget supplement bucket.
- 3) Each time that a customer's annual LIPURP payment plan is established or renewed, Allegheny allocates to the supplemental account for that customer \$560 for general service customers and \$1000 for heating (all electric) customers toward the anticipated shortfall (unused portions will return to Allegheny at the end of the plan year). (The PA PUC allows credits up to \$560 general and \$1400 for heating customers.)

Customers who make at least ten of their requested payments on time, will, at the end of each 12 month payment plan, receive a prompt payment reward reducing their *remaining pre-plan* balance at that time by 20%². Most LIPURP customers will have already reduced this balance, by paying \$5 per month for that purpose. Those with full budget plans may have reduced it even more. If their balance grew during the plan year, only 20% of the plan's initial (smaller) balance is forgiven. Thus it is possible for customers to end up with a higher balance at the year's end, even if they receive a prompt payment reward credit.

Customers who do not make their payments are subject to normal collections procedures, including threat of service termination. Participants whose service is terminated for nonpayment must pay a reconnection fee, plus any unpaid portion of their LIPURP payment responsibility. If the customer's account final bills, the customer must pay the required amounts plus re-apply for the LIPURP Program. Allegheny starts collections activities for accounts that are at least \$50 overdue. In allocating its collections efforts, Allegheny places high priority on LIPURP customers who pass this threshold.

To cover any gap between the actual bill and the sometimes lower payment amount asked, Allegheny furnishes shortfall-covering credits in months when the actual bill exceeds the customer payment amount. These credits are held in a supplemental account and are applied to the account only when the customer pays (on time, or late) their amount for the month subsidized. When applied, these shortfall-covering credits reduce the accounts receivable balance.

LIPURP Participants are also asked to:

- notify the program administrators of any significant changes in financial situation;
- read their meter and mail in the reading every other month (Allegheny reads six times a year);

² However, due to computer algorithms, for customers who move during the year, the "good payment" tally starts over again at the new address, making it more difficult for transient customers to earn the prompt payment reward.

- conserve energy, and accept energy education and conservation services if offered;
- apply for energy grants to programs for which they are eligible;
- accept budget counseling.

While the customers are informed of these obligations there is no systematic effort to enforce them, and RETEC believes some are not enforceable. According to staff, the program makes relatively few referrals for budget counseling, but staff will discuss with spendthrift callers their expenses, priorities, and possible ways to save. Results of customer interviews suggest there are some households that are not making wise spending choices, and that some additional budget counseling might be in order, at least for customers who are receptive to it.

Eligibility

To participate in LIPURP, customers must have incomes at or below 150% of the poverty level income for a household of their size. Occasional exceptions are made where households over 150% have extensive un-reimbursed medical expenses. Customers with severe difficulties may be referred to the CARES program for more individual treatment. Figure 1.8 shows applicable poverty levels for households of different sizes. The Gross income threshold for Food Stamp eligibility is around 127% of poverty level. RETEC concludes that most LIPURP participants would be eligible for consideration by the Food Stamp program if they passed the low assets requirement of that program.

Figure 1.8 Poverty Level and Eligibility for Food Stamps and LIPURP

Size of Family Unit	Annual Gross Income			Monthly Gross Income		
	100% of Federal Poverty Level	Eligible for Food Stamps below:	150% of Federal Poverty Level	100% of Federal Poverty Level	Eligible for Food Stamps below:	150% of Federal Poverty Level
1	\$8,980	\$11,520	\$13,470	\$748	\$960	\$1,123
2	\$12,120	\$15,528	\$18,180	\$1,010	\$1,294	\$1,515
3	\$15,260	\$19,536	\$22,890	\$1,272	\$1,628	\$1,908
4	\$18,400	\$23,532	\$27,600	\$1,533	\$1,961	\$2,300
5	\$21,540	\$27,540	\$32,310	\$1,795	\$2,295	\$2,693
6	\$24,680	\$31,548	\$37,020	\$2,057	\$2,629	\$3,085
7	\$27,820	\$35,544	\$41,730	\$2,318	\$2,962	\$3,478
8	\$30,960	\$39,540	\$46,440	\$2,580	\$3,295	\$3,870

Because of computer system constraints, customers can only be placed in LIPURP if they have an unpaid bill (this places their account in the Allegheny Collections Database.) However, there is no formal requirement that customers have poor payment history. Good-paying customers who need to deliberately skip a payment to gain admission are assured that any negative traces of this nonpayment event will be manually removed from their credit record. Nor is there at this time an “ability to pay” or “negative cash flow” requirement that customers’ allowable expenses exceed their income.

Determination of Customer Payment Amounts

Customers are expected to pay each month a percent of their average monthly gross income or their average budget bill, whichever is lower. The percent of income to pay is determined by their electric rate and poverty level, as recommended by the PA PUC. These percentages are shown in Figure 1.9.

Figure 1.9 Percent of Income to Pay Monthly

Household income:	Less than 50% of poverty level	51-100% of poverty level	101% -150% of poverty level
General Service	4%	5%	6%
Elect Water Heat	6%	8%	12%
Heating (all electric)	10%	14%	16%

Minimum monthly payment amounts, regardless of income level, are \$18 for general service, \$23 for water heat, and \$28 for heating customers. As shown in Figure 1.10 below, these minimums kick in only for the households with fewest members and least income.

In practice, many customers end up paying their full average monthly bill in LIPURP, because the percent of income amount often exceeds the "total annual bill" (this is in part due to Allegheny's relatively low rates). Figure 1.10 calculates the dollar amounts that these percentages will ask of customer households of different sizes, at different poverty levels. Some of these candidate payment amounts are quite high! For example, a family of four at 105% of poverty level is judged able to pay \$258 per month towards a heating bill, while an average service area heating bill runs only \$100. Unless they have extremely high bills, the family of four will be asked to pay their full average bill budget amount.

Most households with more than 3 members or with incomes over poverty level are being asked to pay their full budget bill (assuming they have average bills).

In Figure 1.10, note that the payment amounts asked increases across rows as poverty level increases, and *also increase down columns as family size increases*. It is this "down the columns" increase that RETEC considers biased against larger families. For example, consider water heating customers with incomes at 75% of poverty. A single person household is asked to pay \$45 toward their bill. A household of four that is equally poor (at the same poverty level) is asked to pay \$92, more than twice the \$45 amount, and will often end up paying their full bill with no reduction.

Figure 1.10 LIPURP Percent of Income (or Minimum) Payment Amounts**LIPURP Percent of Income (or Minimum) Payment Amounts**

Customers are asked to pay a minimum or PIP amount, if that amount does not exceed their full bill. If the PIP amount is higher than the bill, they pay the full bill amount and receive no reduction in the amount they are asked to pay. These tables categorize PIP amounts to show if they are likely to exceed average, high, and extreme bills.

Average bills exceed PIP amounts only in the unshaded cells. Customers with PIP amounts in a shaded cell, and an average bill, will end up paying the full bill with no reduction. In the lightly shaded cells, high bills exceed PIP amounts, so reductions will be available to some with high bills and all customers with extreme bills. In the dark shaded cells, only extreme bills exceed PIP amounts. Other customers with these PIP amounts will pay their full bill with no reduction.

Poverty Level		45%	60%	75%	90%	105%	120%	135%	150%
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GENERAL SERVICE CUSTOMERS (Average monthly bill in service area is \$50)

Percent to Pay		4%	5%	5%	5%	6%	6%	6%	6%
Number of people in household	1	\$18	\$22	\$28	\$34	\$47	\$54	\$61	\$67
	2	\$18	\$30	\$38	\$45	\$64	\$73	\$82	\$91
	3	\$23	\$38	\$48	\$57	\$80	\$92	\$103	\$114
	4	\$28	\$46	\$58	\$69	\$97	\$110	\$124	\$138
	5	\$32	\$54	\$67	\$81	\$113	\$129	\$145	\$162
	6	\$37	\$62	\$77	\$93	\$130	\$148	\$167	\$185
	7	\$42	\$70	\$87	\$104	\$146	\$167	\$188	\$209
	8	\$46	\$77	\$97	\$116	\$163	\$186	\$209	\$232

WATER HEAT CUSTOMERS (Average monthly bill in service area is \$65)

Percent to Pay		6%	8%	8%	8%	12%	12%	12%	12%
Number of people in household	1	\$23	\$36	\$45	\$54	\$94	\$108	\$121	\$135
	2	\$27	\$48	\$61	\$73	\$127	\$145	\$164	\$182
	3	\$34	\$61	\$76	\$92	\$160	\$183	\$206	\$229
	4	\$41	\$74	\$92	\$110	\$193	\$221	\$248	\$276
	5	\$48	\$86	\$108	\$129	\$226	\$258	\$291	\$323
	6	\$56	\$99	\$123	\$148	\$259	\$296	\$333	\$370
	7	\$63	\$111	\$139	\$167	\$292	\$334	\$376	\$417
	8	\$70	\$124	\$155	\$186	\$325	\$372	\$418	\$464

HEATING CUSTOMERS (Average monthly bill in service area is \$100)

Percent to Pay		10%	14%	14%	14%	16%	16%	16%	16%
Number of people in household	1	\$34	\$63	\$79	\$94	\$126	\$144	\$162	\$180
	2	\$45	\$85	\$106	\$127	\$170	\$194	\$218	\$242
	3	\$57	\$107	\$134	\$160	\$214	\$244	\$275	\$305
	4	\$69	\$129	\$161	\$193	\$258	\$294	\$331	\$368
	5	\$81	\$151	\$188	\$226	\$302	\$345	\$388	\$431
	6	\$93	\$173	\$216	\$259	\$346	\$395	\$444	\$494
	7	\$104	\$195	\$243	\$292	\$389	\$445	\$501	\$556
	8	\$116	\$217	\$271	\$325	\$433	\$495	\$557	\$619

LIPURP participants may use Allegheny's bill extender program, to schedule their payment due dates at a convenient time of month (for example, after receiving a Social Security or welfare check). This is a positive feature that some utilities cannot deliver due to computer constraints.

How Subsidies are Delivered

Allegheny maintains a separate "supplemental" accounting bucket for LIPURP participants. It funds the shortfall-covering credits for months where the actual bill exceeds the LIPURP level payment amount. These credits are applied only when customer has made or made up their payment obligation for the month in question. Any LIHEAP cash grants received for the customer are placed in this supplemental bucket. Once LIHEAP funds are depleted or if no LIHEAP grant is received, Allegheny provides up to \$1000 for heating customers and up to \$560 for base load and water heating customers annually. If the funds in the supplemental bucket are exhausted part way through the plan year, the customer is required to continue paying their LIPURP budget amount, encouraged to pay more, and (absent extra payments) their account receivable balance will grow until new funds are placed in the supplemental account.

Credits are applied even if a customer is paying the full average budget bill, in any months when the bill exceeds the average amount. However, at the end of the plan year, any Allegheny contributed funds that remain in the supplemental bucket are returned to the company. Thus a full-budget customer with high winter use could make a LIPURP plan in the fall and as they enter their high use months (when the actual bill exceeds the budget) credits would be applied to their account to cover the gap. As they continue into summer, their level payment amount would exceed their lower bills, and the extra funds would also go into the supplement bucket. Then in the fall, remaining funds in the supplement bucket would revert to the company. So in this case, the company essentially loans the customer the credits during the winter months, to take them back during the summer. If the customer ends the plan in spring, they have gained from this practice. If they start their plan in the summer, their own excess payments will accumulate in the supplement bucket, and they may not need Allegheny credits the next winter.

When a LIPURP plan expires after 12 months, or a customer moves within the service area

- any remaining LIHEAP funds are credited to the account balance;
- any remaining "carryover" funds are credited to the account balance.
- any remaining Allegheny-contributed funds are returned to the company;
- any remaining LIHEAP funds are transferred to the new account if customer re-establishes service in Allegheny Power's service area.

If a customer moves out of state, any unused LIHEAP funds are returned to the state.

If customers apply for Crisis or Dollar Energy grants, these funds are NOT added to the supplemental account. Instead, they cover the amount that customers are behind in their LIPURP budget payment obligation, and any extra dollars are applied to reduce future payment

obligations. Thus Crisis and Dollar Energy grants remaining as a credit will reduce the next month's "amount to pay" shown on the customer's bill.

If customers overpay or pay in advance, their extra payment automatically goes to the supplement bucket and will not reduce their next month's payment obligation unless a manual change is forced on their behalf. This makes it difficult for customers to pay in advance should they desire to do so.

Figure 1.11 shows an example of these shortfall-covering credits being applied to a customer's account over time.

Figure 1.11 Financial History for a Sample LIPURP Account

	Apr-02	May-02	Jun-02	Jul-02	Aug-02	Sep-02	Oct-02	Nov-02	Dec-02	Jan-03	Feb-03	Mar-03	Apr-03	May-03	Jun-03
Mo Bal	449.1	527.23	486.82	481.82	476.82	471.82	462.58	457.58	531.57	470.29	544.65	541.99	427.58	466.23	526.47
	76.18	59.59	74.62	70.62	135.08	115.87	88.12	73.36	63.42	73.66	98.78	89.47	88.78	59.61	85.34
Charge	1.95	0	0	0	0	0	0	0.63	0.05	0.7	0.63	0	0.63	0.63	0
RP copay	0	0	45.76	45.76	45.76	45.76	45.76	45.76	45.76	45.76	45.76	45.76	45.76	45.76	45.76
Budget	93	92	45.76	45.76	45.76	45.76	45.76	45.76	45.76	45.76	45.76	45.76	45.76	45.76	45.76
"Due"	156	312.95	50.76	50.76	50.76	50.76	50.76	50.76	102.15	55.81	107.27	102.15	50.76	51.39	102.78
ent	0	- 100	- 50.76	- 50.76	- 50.76	- 55	- 50.76	0	- 97.15	0	- 56.51	- 107.2	0	- 50.76	- 102.8
grant	0	0	- 28.86	- 24.86	- 89.32	- 70.11	- 42.36	0	- 27.6	0	- 45.56	- 96.73	0	0	- 96.45
LP grant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
y grant	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
ce Level*	1	2	1	2	1	1	2	1	1	1	1	1	1	1	1

*Defined by RETEC: 1= unthreatened service, 2= calls and/or letters, 3= field visit, 4= short- term disconnection

Apr-02 This customer was on an average bill budget in April of 2002. Failure to pay in that month led to a higher balance coming into May, and a mailed termination notice.

May-02 The customer makes a \$100 payment, avoids service termination, and joins LIPURP

Jun-02 The amount due on the June bill is the LIPURP budget plus \$5 toward the balance. The customer pays this amount, and receives a shortfall- covering credit for \$28.86, the difference between the actual bill of \$74.62 and the \$45.76 LIPURP budget payment.

Jul-02 Coming into July, the balance is \$5 lower, reflecting the "plus\$5" payment made in June.

Aug-02 Note relatively high use in August and September, possibly from air conditioning, leading to higher LIPURP grants in those months.

Sep-02 In September the customer pays \$55. The "extra" dollars reduce the balance, as seen coming into October.

Nov-02 No payment is made so December's opening balance is higher. A late payment charge is also added in November.

Dec-02 Customer makes a catch up payment, covering two months LIPURP budgets but not quite paying the "Amount Due" shown on the bill. The LIPURP credit for \$27.60 covers the shortfall from November, due to the catch- up payment.

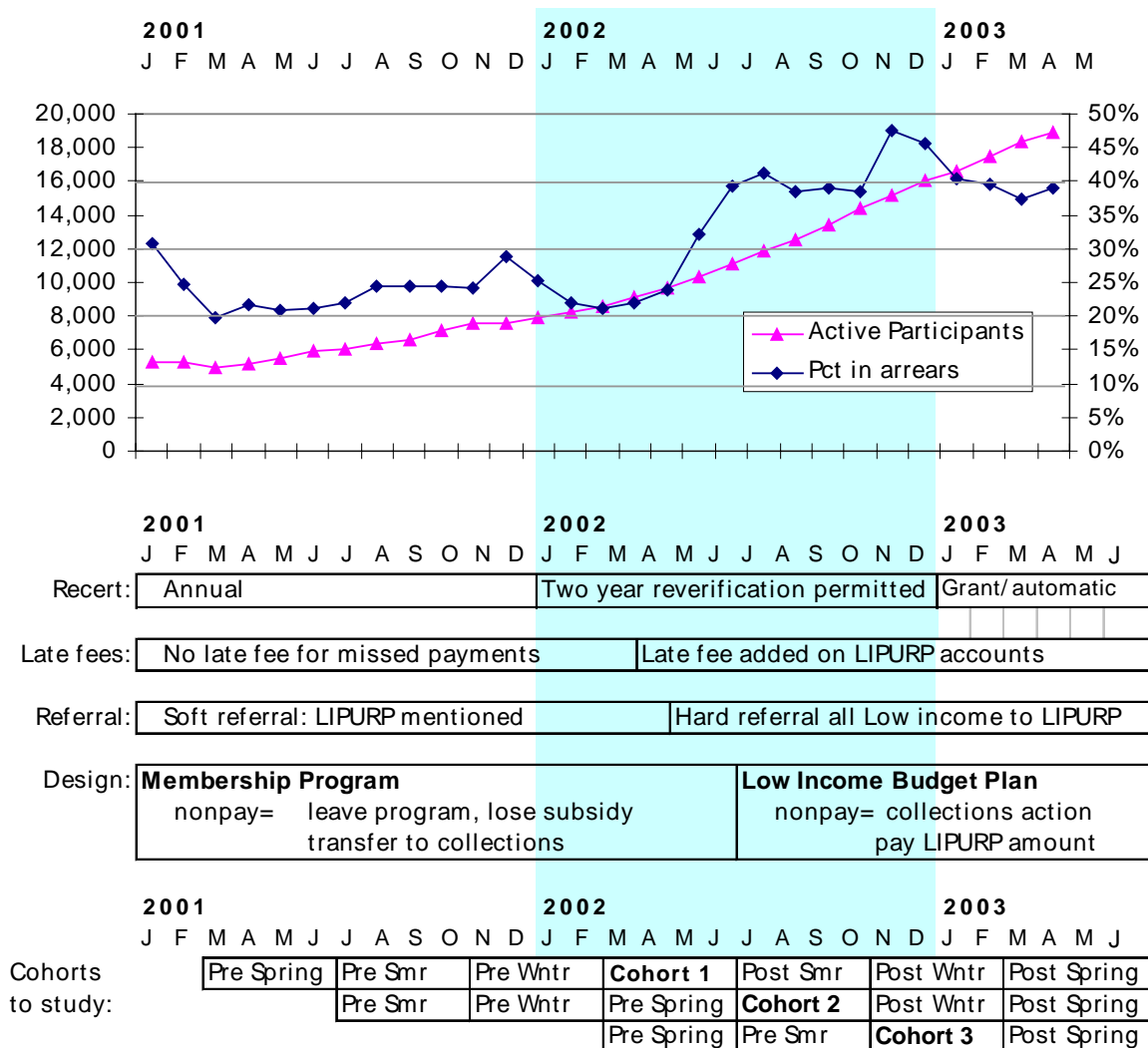
Feb-03 The customer's February payment is added to the amount left over from the December catch up payment, and together they cover the customer obligation for December and January, so a LIPURP credit issued in February covers the shortfall for those two previous months, leaving February's shortfall hanging and the customer one payment behind.

Mar-03 In March the customer catches up completely. The March credit covers the shortfall from February and March.

Recent Changes to Program

Allegheny has made several important changes to fine tune LIPURP in recent years. Some of these changes are shown in Figure 1.12, which also shows growing enrollment that is in part a result of the changes. The cohorts (groups) of first-time participants (shown near the bottom of the figure) were defined by RETEC for before-after analysis.

Figure 1.12 Enrollment and Significant Program Changes in Recent Years



In 1999 Allegheny dropped a “cash flow” requirement, which had required as a condition of participation that customers’ allowed household expenses exceed their income. Even though this calculation is now ignored, the computer systems that store financial information on customers still have places to record a fairly detailed inventory of household expenses and income sources.

At this point in time, LIPURP makes its eligibility and payment amount decisions with no reference to customer expenses and assets. Starting in 2002, customers who do not respond to annual recertification letters are automatically renewed in the program if they have, in the past plan year, applied LIHEAP funds to their account. In the second year they must make at least telephone contact with the program staff to recertify.

In May of 2002 the company refrained from offering a company agreement to low-income customers. Now all low-income payment-related callers are directed to Universal Services for a LIPURP agreement. LIPURP is no longer an alternative arrangement for low-income customers. It is the arrangement offered them.

Prior to July 2002 LIPURP customers had a chance to make a second payment arrangement in regular collections, delaying sanctions for nonpayment for several months. In July 2002 Allegheny discontinued the practice of expelling non-paying customers from LIPURP. Now customers must pay their LIPURP budget amount to maintain service. Failure to pay does not lead to a higher unsubsidized payment amount; it leads directly to the termination process. Thus LIPURP has changed from an elective membership program to a low-income budget plan. RETEC has focused its evaluation effort on the operation of the program since these fundamental changes were made.

These changes are at least partly responsible for the rapid growth of LIPURP starting in 2002. To accommodate this growth program administrators discontinued the practice of preparing, discussing and mailing to each new applicant a computer generated and customized energy use profile, designed to help customers understand their best options to reduce bills through conservation. Applicants eligible for LIURP energy education and conservation services are referred to local agencies that contact the customer to schedule these services.

2. Evaluation of Program Operations

2.1 Methodology of Process Evaluation

The process evaluation was conducted in summer of 2003 drawing upon a site visit Allegheny Power staff and Universal Service Staff (Dollar Energy), interviews with staff, review of written materials, and an in-depth survey of about 40 low-income customers.

2.2 Program Administration

Administration of LIPURP and LIURP are subcontracted to Dollar Energy that has hired Universal Service Representatives at a satellite office in Jeannette solely for that purpose. The office operates as a call center from 8:00 AM to 4:30 PM Monday to Friday, has its own 800 number, and does not service walk-in customers. At this time, all low-income residential customers who call Allegheny for a payment agreement are referred to the Universal Service call center. They may, however, elect to make a company agreement with Allegheny power. All collection issues are dealt with by Allegheny Power. This arrangement seems to work fairly well. The Universal Service staff knows Pennsylvania resources and LIPURP rules, and they are able to take necessary time with each caller.

The Universal Service office observes Allegheny Power's holiday schedule to minimize access problems for customers. One potential issue is a difference in operating hours. Universal Service open hours are fewer than those of the Allegheny Power customer service center. Customers calling Universal Services when the office is closed may leave voice mail messages and these calls are typically returned by the second business day. Customers calling while the Universal Service office is open will be routed directly to an available representative, or will be put on hold until one is available, or leave a message. Customers who cannot get through to the Universal Service office are referred to an answering machine and are called back, typically within two business days. Priority is given to those customers who are in threat of termination. Allegheny Power Customer Service Representatives may also email Universal Services concerning urgent cases when and if customers cannot get through by telephone.

There is no system in place to tally how many customers call and cannot get through to Universal Services, though the director was receptive to a suggestion by RETEC to occasionally analyze answering machine messages and telephone bills to assess this. Telephone contact does not appear to be a significant barrier to participation.

Outreach and Application Process.

The 800 number which is provided in literature, and referrals from the Allegheny Power call center, account for most of the applications to LIPURP. Universal Service staff do some itinerant outreach work with the food banks and at head start centers ("where all participants will qualify") and by finding occasions to communicate with social workers at hospitals and community

agencies. Allegheny's CARES representative devotes much of his time to perform outreach at local community fairs and through home visits.

Of customers making a new LIPURP plan between May 2002 and May 2003, application data shows that

- 81% were referred by the "Allegheny Power"
- 5% were referred by social agencies
- 4% were referred by friends
- 2% learned of the program in an Universal Services brochure
- 1% were referred by the PUC, and 1% by public presentations;
- and 6% were coded "other".

Most applications are processed by Universal Services over the telephone. Walk-ins may complete a two-page application at about 30 collaborating social agencies located throughout the service territory. Less than 5% of the applications are taken at these local agencies. (Agencies are paid \$15 per application.) Head Start, Mental Health Associations, and hospital social service departments have been trained to complete paper applications and do so without receiving compensation. The CARES rep may also enroll customers.

A vast majority of LIPURP participants are judged eligible and given payment amounts with no face-to-face contact or verification of income. Universal Service Representatives will check if customers have recently received LIHEAP or other grants on their electric account as a means of verification. Some customers lacking grant history are asked to fax or mail in verification. Universal Service staff may occasionally require applicants or participants to verify income in person at one of the agencies (agencies receive \$5 for this service). Program records show that in 2003 Universal Services declined only one percent of the applications it processed for LIPURP.

The time of Universal Services staff is used to take applications, seek and complete recertifications, and listen to customer concerns regarding billing and payment issues. Universal Services staff make no systematic effort by telephone or mail to remind people of their prompt payment obligations. However, when time permits, Universal Service staff will try to call LIPURP customers on the "large delinquency list".

Follow-up on past-due accounts had been automated and is handled by the Allegheny Power collections department. Outbound collection calls are made by the collections department. Collection notices are sent to customers who fall behind in their payments. Any customer who is five days late with an obligation of more than \$5 and less than \$50 will receive a reminder letter. Termination notices are mailed to customers who have a past-due amount of \$50 or more. Once they are over \$50, LIPURP customers are prioritized for field visits to deliver deferred notices (48 hour notice) or to disconnect service for nonpayment.

There appear to be few barriers to customer participation in LIPURP. For a household with professed income below 150% to make any other kind of arrangement is unusual and requires an adamant customer. (While around 40% of callers receive a payment arrangement with little or no

subsidy, RETEC would argue that it is currently too easy for customers to access the program's subsidies. We would prefer some minor barriers that would have customers think twice before claiming a subsidy. For example, Universal Services could mail applicants a print out for their signature, summarizing the financial information they disclosed, listing members of the household with all their social security numbers, with language holding customers responsible to return for any funds they receive under false pretexts. This requirement could be applied only to those customers who apparently need substantial shortfall credits to cover their bill.)

USP Information Systems

Allegheny's main computer systems are optimized to support billing and collections in five states. To protect the integrity of those systems and quickly obtain the special functionality needed to administer the Universal Service Programs in Pennsylvania, Dollar Energy and Allegheny developed separate Windows-based databases to administer the program. USP staff also have speedy access to certain screens on the Allegheny billing and collections systems, but the two systems are not integrated. Staff became the integration point, by transcribing (re-entering) data from one system to the other. The double entering of detailed income and expense information is particularly tedious and somewhat time consuming.

In theory, the Universal Service System maintains electronic copies of each income statement /application/ recertification document that may be generated as a customer interacts with LIPURP over time. This is an advantage over the Allegheny collection system. The Allegheny system does maintain multiple income statements but only for active accounts that are currently on a payment agreement or subject to collections actions. Household financial information is lost at Allegheny for closed accounts³ in the collection system, but in theory it is preserved in the Universal Service data system. Paper copies are also filed⁴. The Universal Service system tracks participants by name and by social security number, allowing staff to look up a customer's program history at a previous address. The system also prepares a number of administrative reports.

LIPURP Program Costs

LIPURP cost \$184 per end-of-year participant in 2002. Based on program records through August, RETEC expects a cost of \$233 per end-of-year participant in 2003, nearly using the 5 million dollar budget.

³ RETEC recommends that every three months, Allegheny retain month-end copies of its collections data to support program evaluations and longitudinal analysis of account management strategies.

⁴ If Allegheny did periodically store back-ups of its collection information, or if several years of account history were available even for closed accounts, this would reduce the need for USS staff to save paper documentation for each LIPURP plan

Figure 2.1 Actual and Projected LIPURP Program Costs

The current administrative cost per customer appears to be well below \$30. RETEC estimates that the marginal administrative cost of adding one more customer to the already existing program is less than \$20 per year. This compares favorably with the administrative costs of other affordability programs that have, like LIURP, dropped the function of actively monitoring payment in favor of letting the collections department perform this function. LIPURP's low administrative expense is in part due to its relatively modest verification efforts. Fewer than 2% of customers verify their financial situation in a face-to-face meeting, and only 1% of applications are rejected as ineligible.

- In 1995 Philadelphia Gas works had per-customer variable cost of about \$40 for its program with 50,000 participants⁵. PGW required half hour intake interviews, but used its own customer contact center staff to conduct these interviews.
- After a significant investment to reprogram its billing system, Columbia Gas recently operated a 9,500 customer program in Pennsylvania at an average cost of \$43.50 per participant per year. Re-certification is often handled by mail and verification is automatic for LIHEAP users. An automatic reminder letter is the only follow-up effort to "keep people in the program". Nonpayment is handled with standard collections procedures. Customers who are shut off must catch up their affordable co-payments to obtain reconnection, and they retain their subsidy when they reconnect⁶.
- In recent years PECO has radically trimmed costs by using mail and telephone to enroll customers in its 80,000 customer program. PECO now delivers the subsidy as a reduced rate. It eliminated follow-up in favor of using standard collections procedures to motivate payment of the reduced amounts due from customers. It does not use agencies for intake. PECO spokespersons were reluctant to estimate a variable administrative cost per customer, but RETEC expects this cost to be less than \$40 per year.
- Both PECO and Columbia Gas are considering flexible re-certification periods, so that customers whose income is not likely to increase can re-certify every two or three years instead of annually.

LIPURP's low administrative cost per customer are consistent with the general rule that subsidy/assistance programs should spend no more than 10% of their budget on administration. However, LIPURP is more than a subsidy program. It is also managing much of the telephone communications that any Pennsylvania utility must provide for low-income customers. Outsourcing this function to Dollar Energy appears to be a cost-saving strategy for Allegheny, as well as a way to provide excellent service to its low-income households.

Customers interviewed by RETEC almost universally reported that the Dollar Energy's Universal Service staff is very helpful. Interviewed customers gave Allegheny Power high marks for managing payment problem situations, rating the electric utility as better than other utilities they deal with. Universal Services staff are well informed about area social programs, and make an

⁵ Interview with Christina Coltro, PGW, April, 2002

⁶ Interview with Deborah Cochenour, Columbia Gas, April, 2002.

effort to selectively inform customers of programs that are likely to benefit them. Some of the customers RETEC interviewed recall being informed about other programs that could help them, though many were not participating in lifeline phone plans, and some do not recall this aspect of their conversation with the Universal Services representative.

Recertification

Allegheny requires re-certification of eligibility and income annually. Allegheny prints recertification (call us) requests on the bill and also sends a letter, and has recently fine-tuned the number and timing of these communications. The goal is to have customers call the Universal Services 800 number to update their financial information.

Some customers do not understand or perceive the need to recertify. They believe they are still in the program when they are not. While some customers let their plan expire without recertifying, once they receive a bill showing their entire balance is now due, they typically call to make an agreement. While it would be nice to spare the customer any emotional trauma that might be involved in this sequence, this does not cause a problem for program administration. Either way, notices are sent automatically, and a call is answered.

If customers do not call in to recertify, Allegheny automatically recertifies those who recently used LIHEAP or any similar program that Allegheny Power can receive information from⁷.

About 10% of customers leave LIPURP at recertification time. This may or may not be appropriate- it depends whether they still need the program. RETEC believes that many customers who fail to recertify are no longer eligible or perceive little benefit (their balance may be paid off). Many of the “veteran” LIPURP participants RETEC interviewed reported higher incomes at recertification, with the result that their monthly payment amount jumped.

To the extent that substantial numbers of customers are found eligible for reduced subsidies at recertification time, it implies that they did not need their previous discount for a full year. This in turn suggests that Universal Services should be free to set a recertification requirement interval less than twelve months. This might be used, for example, for customers who are unemployed or seasonally employed. Staff could ask customers how many months of assistance they feel they need to get their financial house in order. A related suggestion is to allow recertification intervals of 18 to 24 months for customers whose fortunes are not likely to change.

⁷ In the 1990s, PECO has had some success cross checking customer records with welfare department records, and Allegheny could explore this possibility as another means to re-verify eligibility.

3. Evaluation of Program Impacts

3.1 Methodology of Impact Evaluation

RETEC received from Allegheny account history for several groups of customers that were pulled as random samples of all the customers meeting the criteria, including:

- 2000 all residential customers active June 03
- 2000 residential customers in arrears over 60 days in June 2003
- 2000 residential customers in arrears over 60 days as of March 2002
- 4,000 accounts coded in LIPURP at the end of June 2003
- 2000 accounts in LIPURP in October, 2002.
- More than 4,000 accounts with activity in CARES and LIURP

RETEC summarized literally thousands of records to calculate meaningful evaluation variables. For example, individual payments were summed to payments made during a particular summer, winter, or year. Records on multiple financial statements were analyzed to determine the lowest and highest poverty level and the median poverty level. Financial statements were also matched to program join dates, and to periods of interest.

Finally, RETEC compiled a month by month history of bills, payments, shortfall credits, and change in balance for the random subset of LIPURP customers. RETEC worked primarily with data from Allegheny's billing and collection systems. A major challenge was determining when customers made LIPURP plans, and the date of the customer's first LIPURP plan.

This data was used to address the two sets questions posed for the impact evaluation:

- 1) Questions about program participation, such as who participates, and (for LIPURP) how long do they use the program?
- 2) Questions about program impacts, such as what changes in service quality and financial performance are observed as customers participate in or leave LIPURP

RETEC also analyzed company reports of program financial operations and residential write offs.

3.2 Who participates in USP programs?

Poverty Levels for Participants

Since the 1960s, the federal government has defined a threshold value for household income that is the poverty line. These threshold values are adjusted for household size and adjusted annually for inflation. Households with incomes below this threshold are counted as poor. Some states including Pennsylvania have found that households with slightly higher incomes also have difficulty obtaining food, housing, and utilities. They have therefore defined a broader class of households as “low-income” an adjective that typically describes households with income below 150% or 200% of the poverty level.

US Povety Level in 2002	
Number in household	Annual Income
1	\$8,864
2	\$11,944
3	\$15,024
4	\$18,104
5	\$21,184
6	\$24,264
7	\$27,344
8	\$30,424

Figure 3.1 Poverty Level of Program Participants and NonPayment Customers

	LIURP	CARES	HARDSHIP FUNDS	LIPURP	Overdue Sample*
ALL HOUSEHOLDS					
Below 50%	19.24%	12.43%	29.85%	24.60%	20.18%
50 - 110%	52.92%	20.34%	52.74%	50.46%	32.33%
110 - 150%	23.37%	21.47%	17.41%	20.56%	17.29%
150 - 200%	2.68%	26.55%		2.25%	13.16%
200 - 250%	1.17%	10.17%		1.02%	7.02%
Over 250%	0.63%	9.04%		1.10%	10.03%
	100.00%	100.00%	100.00%	100.00%	100.00%
Number of cases analyzed	4112	177	201	20781	798

*This analysis could be conducted only for the overdue customers who have an income statement on file. Many do not, because they have not yet made a payment arrangement.

This table shows that, to the extent that the largely unverified customer financial statements are accurate, Allegheny’s USP programs are serving customers who meet the eligibility criteria. The “Overdue Sample” column describes available income information for the random sample of customers late over the \$50 the threshold for collections activity .

For households with multiple financial statements on file, RETEC observed considerable variation of poverty level and cash flow. Thus payment amounts that are carefully tailored to the household’s circumstances could quickly become outmoded, too generous or too demanding, depending upon the household’s changing fortunes.

RETEC does not, however, have great confidence in the accuracy of these financial statements. Most are not verified. PPL's agencies consistently find about one third of CAP applicants to be ineligible and unable to verify the information previously given over the telephone⁸. In our telephone survey of LIPURP participants, over half the respondents disclosed additional income, and about one third mentioned "extra" household members who were not mentioned when Universal Services processed their LIPURP application or re-certification within the previous six months. Several households had monthly income exceeding their LIPURP application income by more than \$1000 per month⁹. (See Appendix B. Survey Results).

RETEC considers participation in the food stamp program to be a fairly reliable indicator of financial need, since that program has limits on allowable assets and verifies eligibility for most recipients in face-to-face interviews at least every six months. Over the last five years, the percentage of LIPURP customers reporting food stamp income has steadily declined from around 55% to 43%. RETEC believes this reflects the expansion of the program to cover all low-income households with payment issues, and the effect of the program gradually becoming known in the service area, so that eligible but less needy households gradually participate in greater numbers.

Household Characteristics

The tables below describe household characteristics for recent participants in Allegheny Power's Universal Service Programs. This information is taken from financial statements customers gave when applying for program services or when making payment arrangements.

Figure 3.2a Household Composition

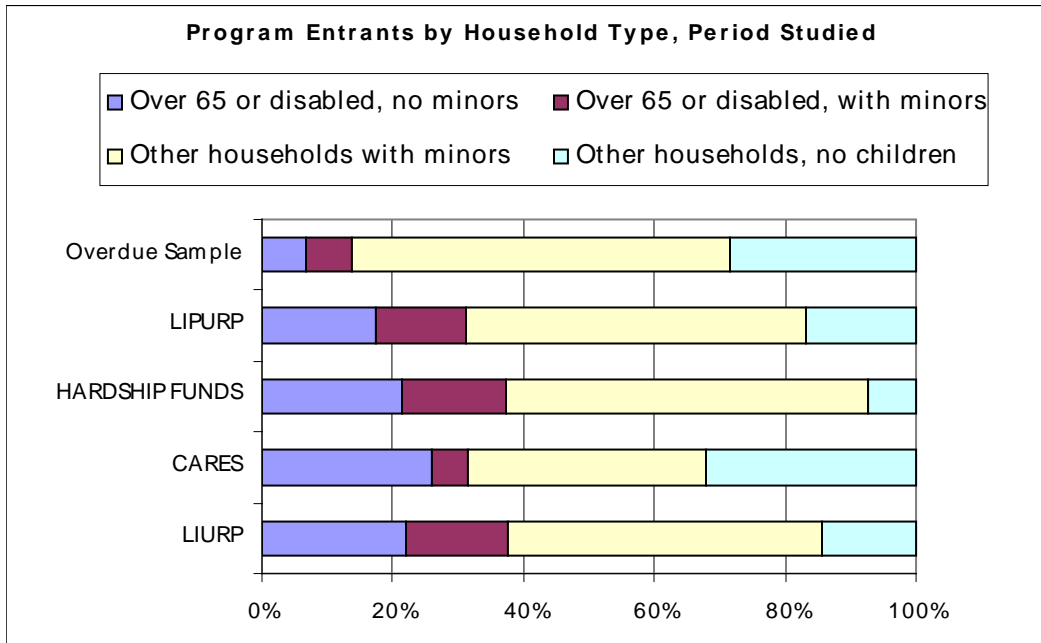
	LIURP	CARES	HARDSHIP FUNDS	LIPURP	Overdue Sample
Over 65 or disabled, no minors	22.11%	25.99%	21.39%	17.57%	6.77%
Over 65 or disabled, with minors	15.54%	5.65%	15.92%	13.65%	7.02%
Other households with minors	48.01%	36.16%	55.22%	51.93%	57.89%
Other households, no children	14.35%	32.20%	7.46%	16.85%	28.32%
All households with children	63.55%	41.81%	71.14%	65.58%	64.91%
All households without children	36.45%	58.19%	28.86%	34.42%	35.09%
Number of cases analyzed	4112	177	201	20782	798

- 83% of LIPURP participant households have members who are disabled, over 64, and/or under 21. This is a vulnerable population.
- 65%-71% of these households had one or more children shown on at least one financial statement made during the period. This percentage is slightly lower for LIURP (64%) and much lower for CARES (42%).

⁸ The same percentage of ineligible applicants was found in the PPL pilot program evaluation.

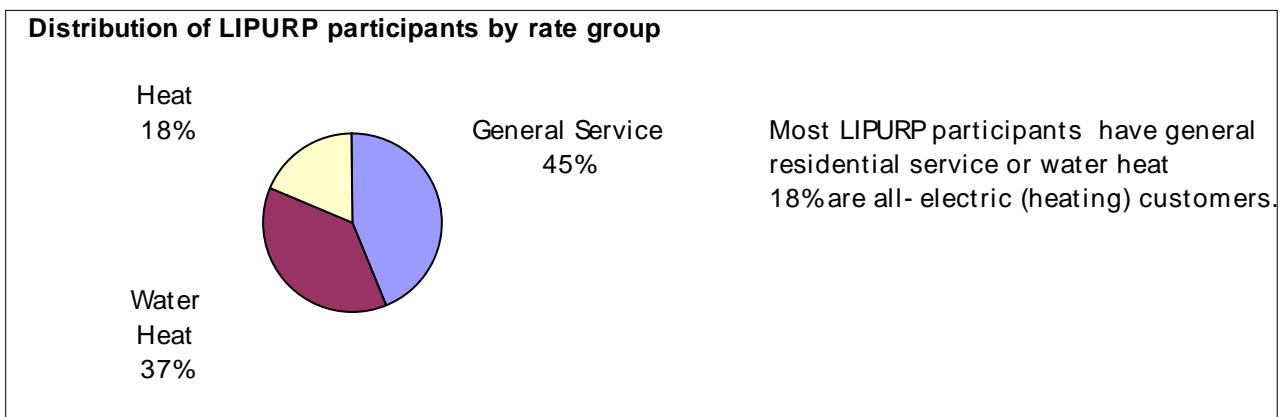
⁹ In some cases, the extra income may not be available to the customer, for example, if the unreported earner is an adult child with wage income who is not contributing to household expenses.

- 30%-37%% receive disability income and/or have at least one member 65 or older.

Figure 3.2b Household Composition

Payment Plans and Usage Levels

LIPURP participants are distributed among rate codes as shown in the figure below. (This section includes highlights from a more detailed Analysis that may be found in Appendix A.)

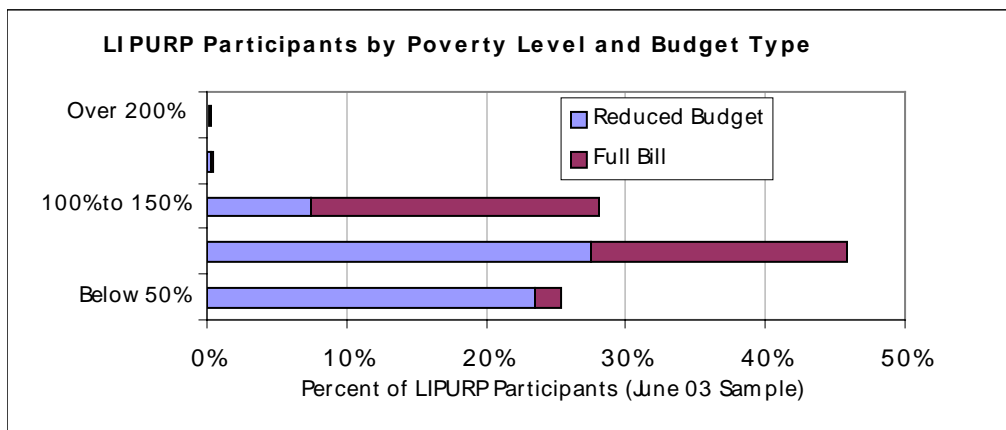
Figure 3.3 LIPURP rate codes

LIPURP asks about 40% of its participants to pay their full bill, because the percent of income formula calculates that they should be able to pay an even higher amount. In a detailed Appendix Section RETEC analyzes which customers are asked to pay what portion of their bill.

- **41%** are expected to pay their full bill without long term use of shortfall credits.
- **45%** are offered credits sufficient to cover the estimated remainder of their bill
- **14%** of LIPURP customers are offered shortfall-covering credits that do not cover the estimated remainder of their bill, once the budget amount is paid. Balances will grow for these customers unless they find other sources of assistance. (Heating customers are likely to be eligible for LIHEAP cash grants.) These are generally households with very low incomes and high or extremely high bills. Available credits fall short of covering the full bill for:
 - 20% of water heat customers (who receive the same shortfall credit as general service customers);
 - 34% of those with incomes below 150% of poverty level; and
 - 53% of customers RETEC classified as having extreme use.

The lower their poverty level, the more likely it is that customers will receive a reduced budget with credits to cover all or most of the remaining bill. See Figure 3.4.

Figure 3.4 Budget Type by Poverty Level



Reductions are also targeted to customers with higher levels of use, as shown in Figure 3.5. However, many high users will not receive sufficient credits to cover the gap. 65% of extreme users receive a reduced budget, but 53% will still face a gap unless they obtain additional funding or cut their usage.

Figure 3.5 Plan Type by Usage Level

To examine the impact of usage, RETEC first analyzed a random sample of all residential customers to establish income ranges.

Relative Usage Levels Defined by RETEC from Random Sample of Residential Accounts

Average Monthly Bill	Residential Service	RS with Water Heat	RS with Heating
low	below \$30 26%	below \$45 27%	below \$60 26%
moderate	\$30 to \$60 44%	\$45 to \$80 44%	\$60 to \$120 43%
high	\$60 to \$90 21%	\$80 to \$110 21%	\$120 to \$180 21%
extreme	over \$90 9%	over \$110 8%	Over \$180 10%

Shaded columns show percent of all rate group (all residential customers) in each use range.

Of all Residential customers, 30% are high or extreme users. 42% of LIPURP participants have high or extreme use.

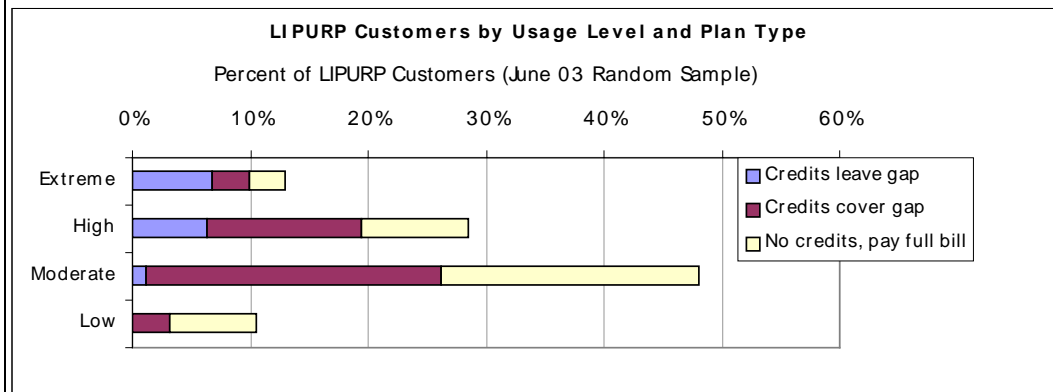
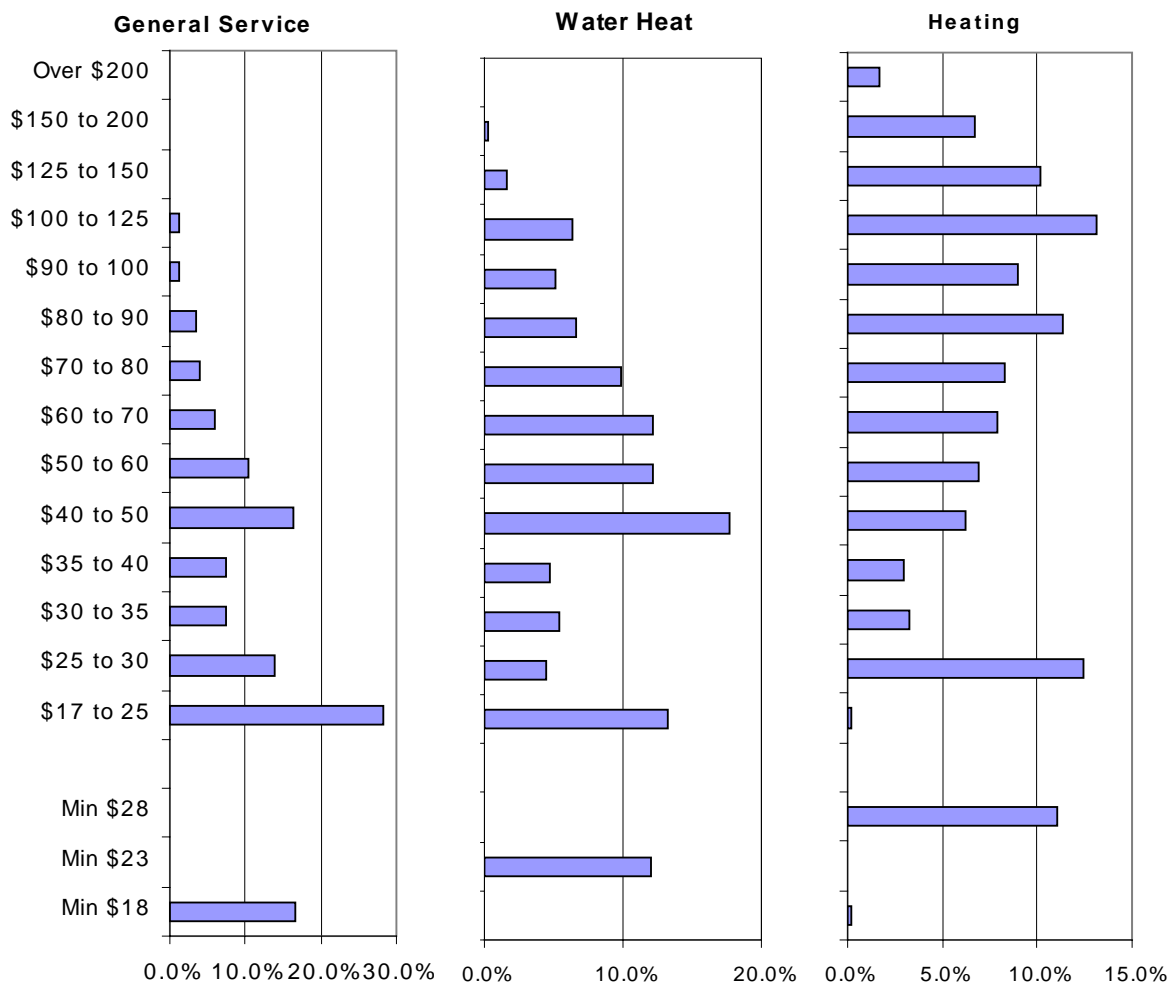


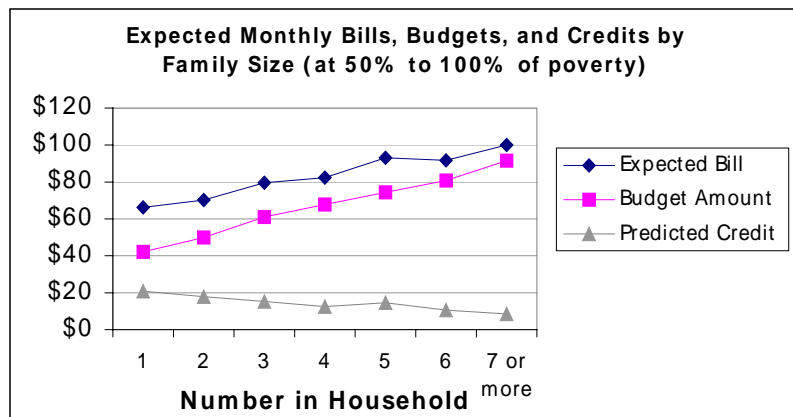
Figure 3.6 shows the distribution among LIPURP customers of budget amounts they are asked to pay. These amounts include both the subsidized and full bill amounts. Note that 12% to 16% of customers are asked to pay the minimum amount. (These customers are counted again in the ranges higher in the charts.) At least 30% of each rate group are being asked to pay more than the average residential bill for their rate group. Of course, they may be high users so that even an above average budget may represent a break for them.

Figure 3.6 How are LIPURP Budget Amounts Distributed?

At the same poverty level, larger households are less likely to receive reduced budgets than households with fewer members. For example, for households between 50% and 100% of poverty level, 68% of single person households vs. 48% of 4 person households, are receiving reductions and credits. Figure 3.7 shows the effect of household size on average bills, budgets, and credits at this poverty range. Pages 9-11 in Appendix A provide more detail.

Figure 3.7 Effect of Household Size on Bills, Budgets, and Credits

The graph below shows average values for LIPURP Participants with income between 50% and 100% of poverty level. Compared to households with 1 or 2 members, larger families at this income range are asked to pay higher budget amounts, and consequently are offered smaller credits.



Controlling for bill and poverty level, each additional person in a LIPURP household adds an additional \$3.38 to the monthly budget amount the program asks the household to pay.

Account Transience

RETEC analyzed the random sample of 4,000 accounts “in LIPURP” in June of 2003. Some of these accounts were already inactive, and for some others it was difficult to reliably infer when they first joined the program. Using 3,180 LIPURP accounts active in June 2003 with clear plan dates, RETEC found that 67% were in their first LIPURP plan, 24% were in their second plan, 8% were in their third plan, and 1% had been in the program more than three years. Of course, some of the accounts in their first plan were customers who moved from a previous address and account number where they had also been active in LIPURP.

To analyze account transience, RETEC studied the sample of 4,000 accounts “in LIPURP” in October of 2002. Ten percent were already inactive at that time. Of the 3615 accounts still active then, 18% had closed by June of 03, nine months later. This closure rate of 24% per year suggests an account half life of two years.

3.3 What happens to LIPURP Participants?

To discern how different groups of customers fared in LIPURP, RETEC used the random sample of 4,000 accounts that were coded in LIURP at the end of October 2002. We looked specifically at the customers in that sample who made their most recent LIPURP plan April-July 2002. We examined their status at the end of June, 2003, a year to 15 months after their plan was made. Details of this analysis will be found in Appendix A, on a single page titled “Fate of Customers in LIPURP”. Highlights include the following results:

24% of the accounts have closed by June of 2003. Some of these customers probably re-entered LIPURP at a new address. The following groups had above-average closure rates:

- General Service customers (32%)
- Low-use customers (37%)
- 3 or more children (48%)
- Accounts opened after 1999 (38%)
- Accounts with annual shortfall over \$500 (37%)

Of the customers who remained active at the same address and account number, 87% were still in LIPURP in June of 2003. Groups more likely to remain included:

- Those with a higher balance when they made their spring 2002 plan. 92% owing \$900 or more are still in LIPURP, compared to 85% owing less.
- Those with extreme usage (92%)
- Those with collections field visits during summer of 2001 (94%)
- Those asked to pay less than 70% of their bill (92%)

Ten percent of the still-active customers were in arrears over \$50 and thus liable for termination in June of 2003. The subgroups most likely to be facing termination included:

- Those with extreme use (19%) and high use (13%)
- Those with a balance over \$900 coming into their 2002 plan (19%)
- Those with poverty levels below 50% (14%)
- Those asked to pay less than 70% of their bill (17%)

The groups least likely to be overdue and facing termination include households with no children (6%), with pension income (3%), with paid-off mortgages (7%), or with 1-2 persons in the household (5% and 8%)¹⁰.

Four percent of these LIPURP participants had been terminated for nonpayment during July-October 2002. Customers with high use, high spring 2002 balances, collections problems the previous summer, and children were more likely to be terminated than households that differed on these dimensions. Customers asked to pay more than 70% of their bill had nearly twice as many field visits and terminations compared to the customers asked to pay less than 70% of their bill, even though a higher percentage of the heavily subsidized customers were overdue.

RETEC could not reliably distinguish between shortfall credits and end-of-plan prompt payment credits in the account history. One indicator of which customers received prompt payment credits was the presence or absence of a "no grant received" letter in the collections history. 61% of the

¹⁰ Appendix A page 9 shows bills, budget amounts, anticipated credits and accounts overdue for households at different poverty levels and family sizes. Households with more members, and especially those with low poverty levels, are most likely to be overdue. This result supports RETEC's conclusion that the percent of income scale as currently used is biased against larger households.

customers still in LIPURP in June 2003 had received a “no grant” letter in the spring of 2003. The groups least likely to receive this letter (and more likely to receive a prompt payment grant) were:

- Owners with no mortgage (52% vs. 64% for renters)
- Households with unemployment income (55%) vs. welfare income (68%)
- Households with no children (57% vs. 63% for households with children)
- Households with no collections activity in 2001 (58%)

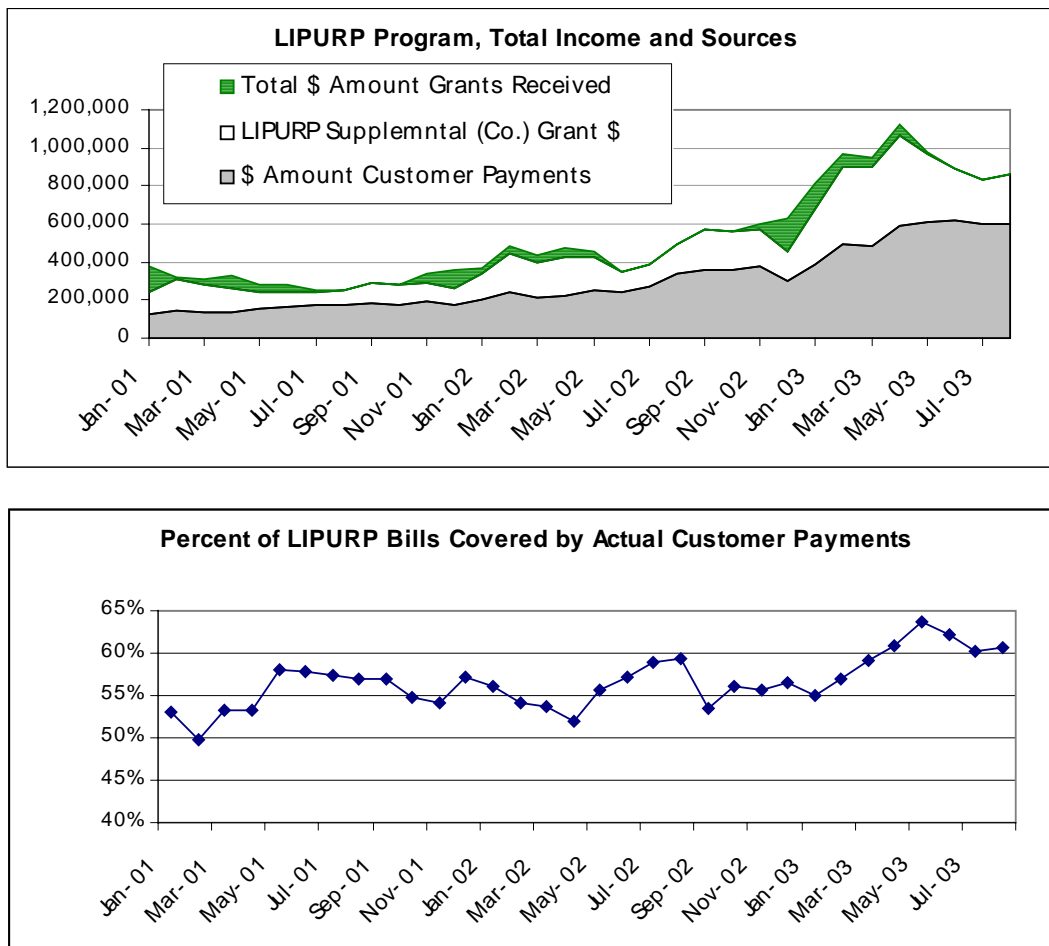
While many of these differences in proportion are not large, this pattern of results suggests that households with more members, higher use, more children, and fewer assets have the most trouble paying on a regular basis the amounts assigned to them.

3.4 Account Financial Performance and Quality of Service

Aggregate Program Impacts

RETEC analyzed Allegheny administrative reports that show financial performance of the entire LIPURP program by month. Some results are shown in Figure 3.8. The first graph shows the income obtained for LIPURP accounts, and its sources. Customer payments appear to dip in December, and rise during spring and summer. Spring catch-up payments trigger the application of supplemental grants. LIHEAP grants make a critical contribution during winter months. The second graph shows the percent of the total bill for LIPURP participants that is covered by their personal payments. This percentage appears to be rising slowly.

Figure 3.8 Statistics from Program Administrative Reports



LIPURP has grown rapidly and now eventually enrolls most low-income households that encounter payment difficulties. Because it accelerates write offs, RETEC expects a program this large could have a discernable impact on the total performance numbers for all Allegheny residential accounts. RETEC obtained monthly totals for Allegheny's Pennsylvania residential customers, and found that LIPURP's shortfall credits now account for nearly 50% of the total residential write offs. Not surprisingly, the growth of LIPURP has coincided with an increase in total write offs. However, total accounts receivable dropped in the last year, at least in part due to the LIPURP shortfall credits being applied against balances, reducing them while increasing write offs. To measure the net effect RETEC calculated estimated residential shortfall. This shortfall grew very slowly in the last year. This in turn suggests that the entire LIPURP program is not significantly increasing the costs transferred to rate payers.

Figure 3.9 Aggregate LIPURP Impacts

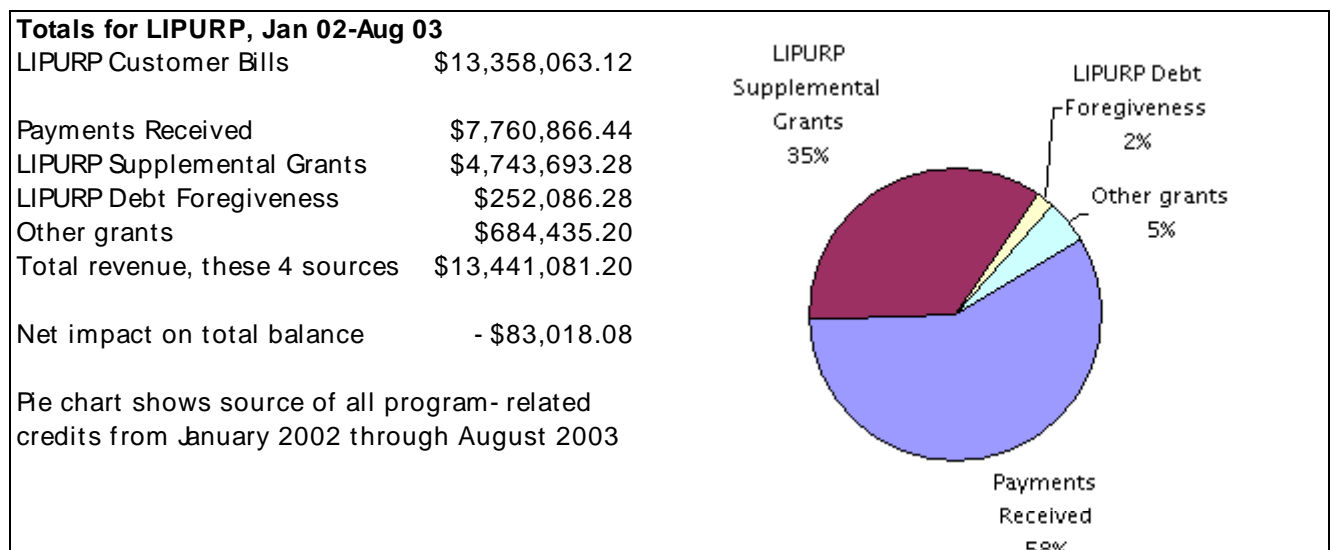
Program Totals, Relation to Total Allegheny Pennsylvania Residential Write Offs

	Residential			LIPURP credits as	Estimated Residential
	Accounts Receivable	Gross Write Offs Jan-Aug	Net Write Offs Jan-Aug	Pct of Net Write off	Shortfall* Jan-Aug
Aug- 01	34,053,324.13	5,510,737.69	3,658,102.69	23.7%	4,295,788.82
Aug- 02	35,073,327.57	5,940,241.26	3,972,078.26	34.3%	5,266,008.20
Aug- 03	33,145,049.17	7,831,774.45	4,421,108.20	46.4%	5,346,106.30

*Estimated Shortfall = Net Write Offs Plus Change in AR Balance

Figure 3.10 adds up the program-wide financial figures for the 20 months ending in August 2003. It shows that when all revenue sources are combined, LIPURP revenue exceeded LIPURP bills, resulting in a net reduction of the total balance.

Figure 3.10 LIPURP Program Totals



Results of a Full Year in LIPURP

RETEC analyzed the performance of individual customers who were in LIPURP for a full 12 months ending June 2003. Results are shown in Figure 3.11, for customers with low or moderate use, and for customers with high or extreme use in each rate group. On average these customers made slightly more than 6 payments per year, were charged over \$7 in late fees, and covered 77% of their bill. Counting the extra \$5, customers paid 114% of their LIPURP budget.

Shortfall (the amount of the retail bill not covered by customer payments and public-source grants) varied from 14% of the bill for low and moderate use customers to around 30% of bill for those with high or extreme use. Once available LIPURP credits were applied, this shortfall was eliminated or substantially reduced, but only for low and moderate users. For customers with high or extreme use, the available credits applied were not sufficient to offset the bill and the balance grew.

Figure 3.11 Average Values for Full 12 Months in LIPURP

Average Values for Full 12 Months in LIPURP	CAP Full-Year Participants by Rate and Usage Level						All LIPURP Accounts
	Low or Moderate Use			High or Extreme use			
	GenServ	Water H	Heat	GenServ	Water H	Heat	
Customers in sample	228	210	91	159	192	69	949
Months with payment	6.16	7.10	4.96	5.54	6.91	5.96	6.29
12 Months bills	\$558.08	\$787.48	\$1,210.25	\$1,040.15	\$1,298.42	\$2,060.25	\$1,011.15
12 Months payment as percent of bill	\$450.53	\$654.00	\$831.71	\$668.14	\$912.37	\$1,320.28	\$725.24
	85%	87%	72%	65%	74%	67%	77%
Budget amount asked	\$389.12	\$595.49	\$861.83	\$603.99	\$815.42	\$1,254.03	\$665.25
Pct of budget paid	120%	113%	101%	115%	115%	106%	114%
LIHEAP grants	\$26.17	\$16.80	\$166.43	\$29.90	\$26.70	\$110.72	\$44.42
Agency grants	\$2.69	\$3.83	\$12.28	\$9.67	\$10.20	\$10.99	\$7.16
Total Revenue	\$479.39	\$674.63	\$1,010.42	\$707.72	\$949.27	\$1,441.99	\$776.82
as percent of bill	86%	86%	83%	68%	73%	70%	77%
Shortfall	\$78.69	\$112.85	\$199.83	\$332.44	\$349.15	\$618.26	\$234.33
as percent of bill	14%	14%	17%	32%	27%	30%	23%
LIPURP grants	\$136.78	\$150.05	\$191.56	\$272.00	\$291.07	\$490.21	\$224.54
Penalties	\$5.47	\$7.16	\$8.39	\$8.52	\$8.15	\$8.05	\$7.37
Net impact on balance	- 52.62	- 30.04	16.65	68.96	66.24	136.11	17.16
Change in Balance*	- 11.29	4.12	23.35	59.51	128.04	15.72	37.45

*Due to transfers in from former accounts, and transfers out as accounts close, the recorded change in balance does not accurately reflect account activity during the period. The Net Impact on Balance is a better measure of program performance.

Source is Sample of 4000 Current LIPURP customers, excluding those with ambiguous data or less than 12 months in LIPURP ending June 2003.

For the same group of full year customers, RETEC analyzed payment frequency and service level (or degree of collections activity). Results are shown in Figure 2.12. Only 26% of these customers made payments in 11 or 12 months in the 12 month period. However, it appears most of the other customers are catching up missed payments. Only 17% are overdue in June, and only 5% have had field visits or service terminated.

Figure 3.12 Payment Frequency and Service Level in LIPURP**Percent of Customers Paying at Different Frequencies, and Receiving Different Service Levels**

	LPURP Full-Year Participants by Rate and Usage Level						All LIPURP Accounts
	Low or Moderate Use			High or Extreme use			
	GenServ	Water H	Heat	GenServ	Water H	Heat	
Customers in sample	228	210	91	159	192	69	949
Percent of each group:							
Making 11 or 12 paymts	24%	31%	20%	20%	29%	29%	26%
Making 9 or 10 paymts	18%	20%	15%	18%	19%	16%	18%
Making 7 or 8 paymts	10%	15%	8%	11%	13%	7%	11%
Making 5 or 6 paymts	11%	5%	3%	8%	11%	7%	8%
Making <5 payments	36%	29%	54%	43%	29%	41%	36%
Service Level 1	41%	33%	25%	31%	30%	30%	33%
Level 2: letters and calls	54%	61%	69%	64%	65%	67%	62%
Level 3: field visits	3%	2%	2%	0%	3%	3%	2%
Level 4: termination	3%	4%	3%	6%	3%	0.0%	3%
90 days overdue, June	14%	13%	16%	24%	20%	15.9%	17%

Source; Sample 4000 Current LIPURP customers, subset with clear 12 months in LIPURP

Note: 36% made fewer than 5 payments, but only 17% are 90 days overdue in June, and only 5% received collections field visits. This suggests that many irregular payers are catching up to their obligations with prompting from collections department letters and calls.

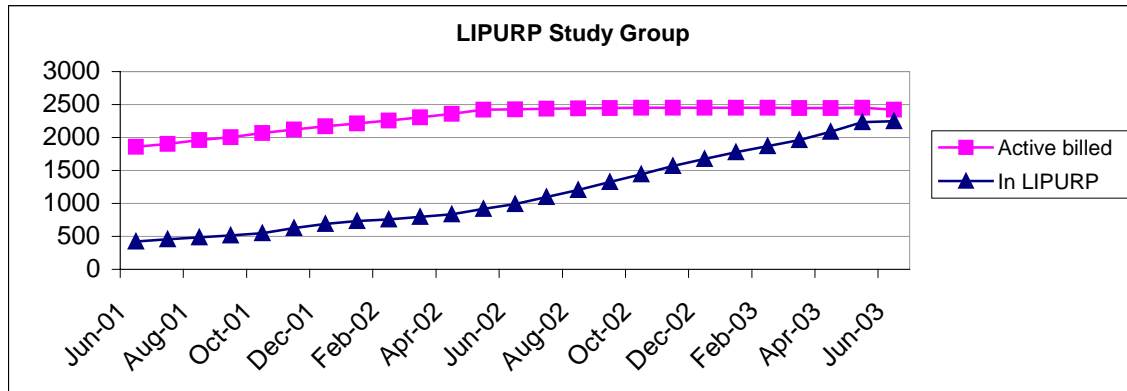
RETEC then explored the relationship between payment frequency, service level, and amount paid. Did infrequent payers cover enough of their bill to avoid service terminations? 80% of the full-year LIPURP participants paid at least 95% of the amount asked of them, even though fewer than 30% paid regularly. Even among those making fewer than 5 payments, 65% paid at least 95% of their asked amount. Only 8% of the full year group paid less than 5 times a year and paid less than 75% of the amount asked. Details are available in Appendix A.

3.5 Changes Observed in Account Behavior

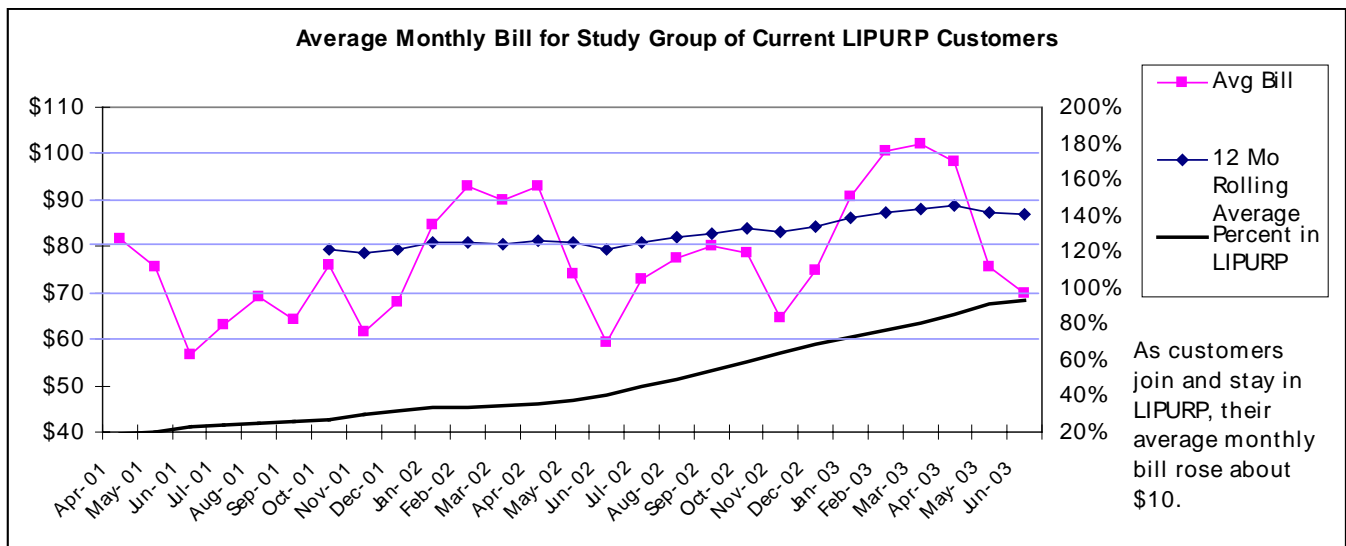
Month by Month Financial Analysis

From the random sample of 4,000 customers in LIPURP in June of 2003, RETEC selected the nearly 3,000 who had service at their June 2003 address for an entire year or more. This study group was used to analyze changes in account behavior over time.

The top line in the graph below shows that this study group grew in number from June 01 to June 02, as customers moved to the address they occupied in June of 2003. The blue triangles show, for each month, the number of customers with a LIPURP budget during that month.

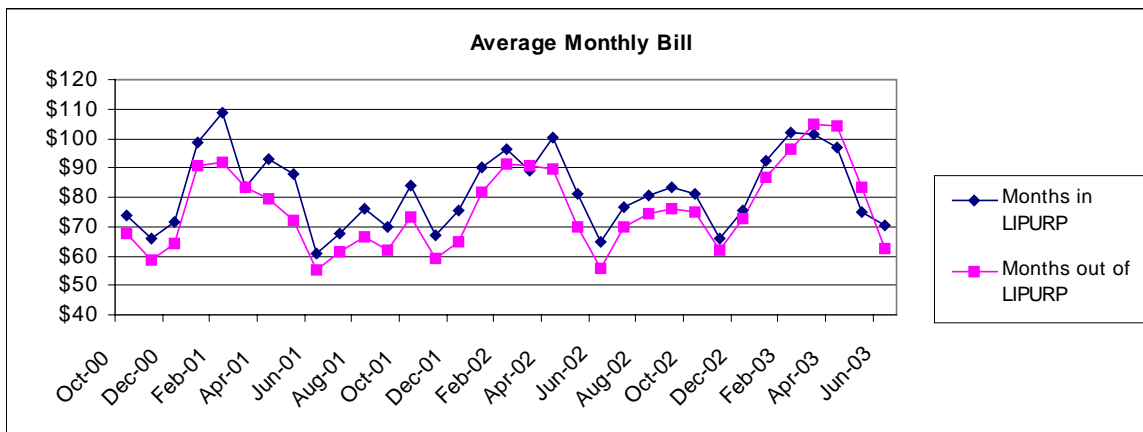
Figure 3.13 LIPURP Study Group

As the study group accounts joined and stayed in LIPURP, their average monthly bill increased by almost \$10 per month or \$120 per year. As shown below, both summer and winter bills have increased.

Figure 3.14. Monthly Bill for Study Group

The next five graphs compare, in each month, the customers who were in LIPURP during that month to those who had not yet joined, had left, or who let their agreement lapse temporarily. Thus the comparison is not between two stable customer groups, but between customer months in and customer months out of LIPURP.

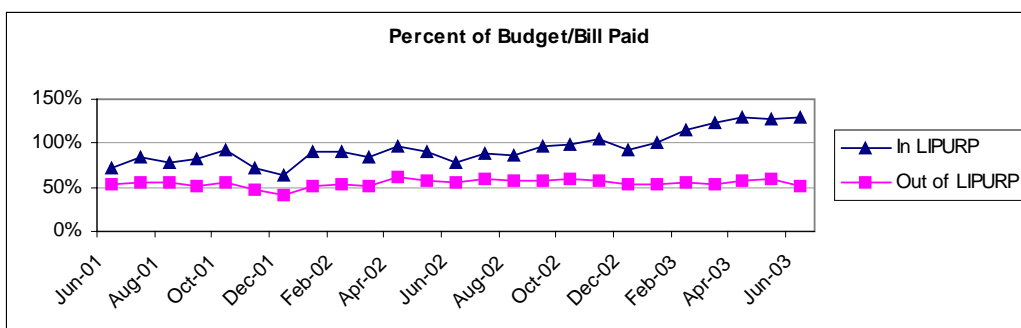
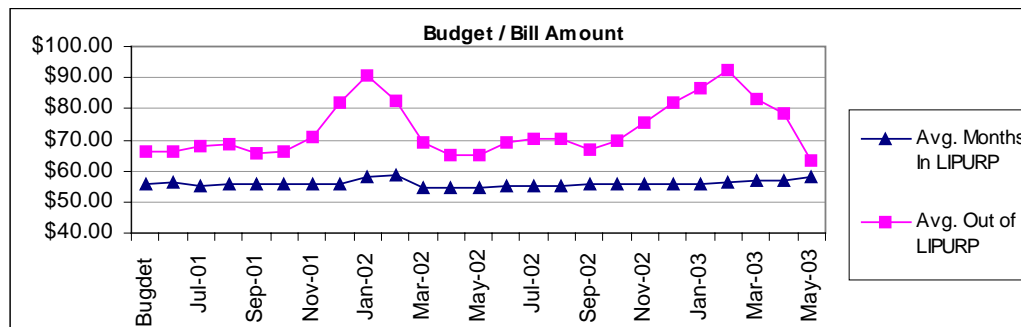
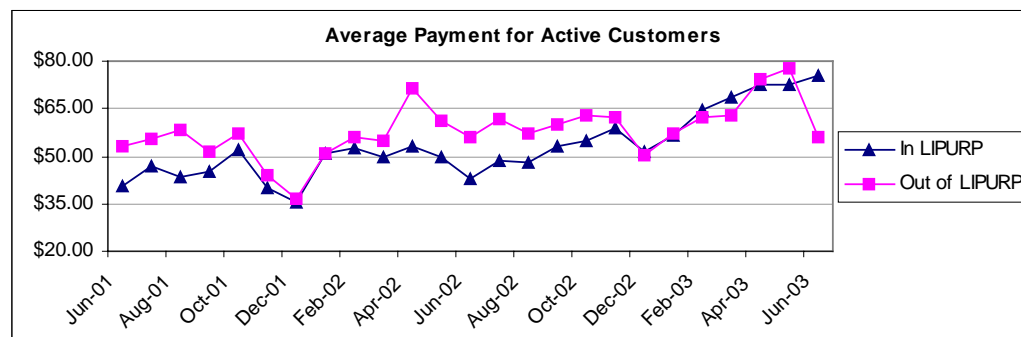
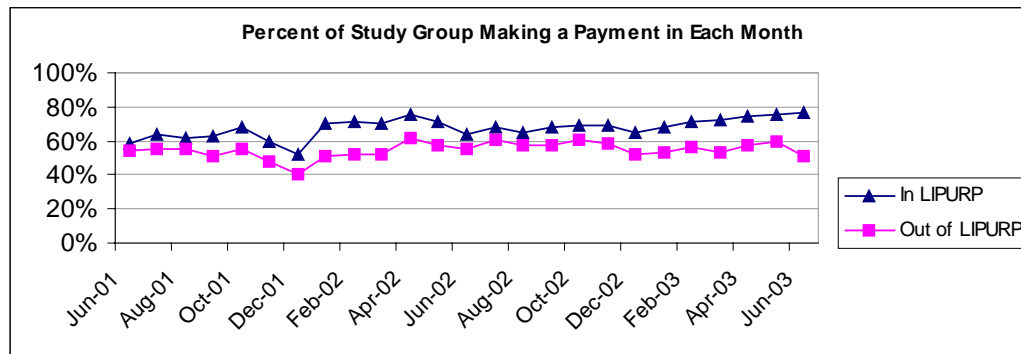
The first graph shows that when customers are in LIPURP, the amount of their retail bills are, on average, higher than during months they are not or were not in LIPURP. (Data for the most recent 2 months shown may not be reliable, due to omission of any disputed bills.)

Figure 3.15 Bills in and out of LIPURP

Several graphs are shown in Figure 3.16. The first shows that payments are more frequent during months customers are in LIPURP. The second graph shows that payments have often been of a lower amount during months that customers are in LIPURP. This is the usual result seen in CAPs: customers respond to lowered payment amounts (and stronger incentives to pay regularly) by paying smaller amounts on a more regular basis.

The third graph shows the amount driving what customers were asked to pay. This is either their budget (when they are on any kind of budget plan) or their actual bill. Because LIPURP is a level payment plan, the line with blue triangles is fairly flat, though it shows a gradual increase in budget amount over the last six months. Because the LIPURP budget is subsidized for approximately 60% of participants, the average budget line is well below the fluctuating actual bill.

The fourth graph shows the percent of the asked amount (from graph 3) that customers actually paid. They paid a higher and increasing portion of the asked amount when in LIPURP. The extra \$5 a month and catch-up payments explain why there are some months with payments over 100% of the budget amount.

Figure 3.16 Account Performance in and out of LIPURP

Thus this study group of customers, during their months in LIPURP, pay more regularly, and pay a higher percentage of the amount they are asked to pay, than they do or did pay during the months they were not in LIPURP. The amount of dollars they pay may be slightly less, but in spring of 2003 this amount is “gaining” on the amounts paid during months out of LIPURP. Payment amounts are much higher in spring of 2003 than in earlier years. 2003 is the first spring collections season when LIPURP functioned as the low income budget plan, instead of an alternative that customers could leave to make another “normal” payment arrangement.

- Additional graphs of month by month account behavior are found in Appendix A. Several graphs show the impact of customers joining LIPURP for the first time. Average payment frequency typically increases, and there is a related slight improvement in service level. Average payments are initially lower than before customers joined the program, but slowly approach their former level. There is a gradual increase in the average balance which then levels off or begins to decline.

Pre-Post Comparison of Account Performance

Since design changes were made to LIPURP in July of 2002, and the account history transferred to RETEC ended in June of 2003, there was less than a full year of history available to analyze for customers experiencing the current program design. RETEC therefore made two pre-post comparisons. The first focused on 221 customers who joined LIPURP for the first time in spring of 2002, when LIPURP was still a membership program. The second analysis compared February to June performance in 2003 vs. 2002, for customers who first joined LIPURP after July 2002 when it became a low income budget plan. Results from these two analyses are quite different, suggesting the budget plan with its constant combination of carrots and sticks is superior to the membership program model. Details of both analyses may be seen in Appendix A.

In the full year pre-post comparison the spring 2002 joiners showed, on average, only a slight increase in payment regularity and a marked decrease in personal payment amount, an increase in bills, and higher shortfall which was largely NOT covered by LIPURP grants. Balances increased overall, even though heating customers increased their use of LIHEAP grants.

RETEC then compared the February to June periods (2002 pre vs. 2003 post) for a larger group of 676 customers who joined the low-income budget plan between August 2002 and January 2003. Results show an increase in average payment frequency, the average payment amount, and the percent of asked amount paid. Total revenue in the period increased even before LIPURP shortfall-covering and reward grants were applied to the accounts. Service level improved. Balances decreased. Because this analysis is more recent, involves more customers, and its post period months all occurred after the July 2002 revisions to program design, RETEC believes this is the most reliable indicator of future program performance. Results are summarized in Figure 3.17 and may be seen in more detail in Appendix A.

Figure 3.17 Summary of Changes as Customers Join LIPURP (5 month period February through June 2003 vs. 2002)

Variable	Heating	General Service
Number of months with payment made	Increased .84	Increased .86
Amount of personal payment	Up \$95.34	Up \$70.69
Percent of retail bill covered by payments	Up 2.5% points	Up 20.7% points
LIHEAP credits applied to account	Up \$8.57	Up \$1.95
Impact on balance	Lowered \$132.43	Lowered \$120.18

This increase in the amounts customers paid is an important result that is rare among CAP programs, where sponsors often see a decrease in revenue from payments. RETEC has found in several evaluations of CAP type programs that (holding collections pressure at a constant level) most payment problem customers are willing and able to pay \$100 to \$120 more per year to obtain level one service (no collections calls or notices), or to obtain an improvement in service level. If customers are requested to stretch much more than \$100 over their pre-program payment level, compliance begins to suffer and the percentage of “successful” customers drops. Thus this recent spring comparison shows LIPURP to be operating close to the maximum obtainable improvement in payment amount. 60% of these customers paid more frequently in spring of 2003, and another 15% paid regularly (4 or 5 payments) in both springs. 36% saw an improvement in service level, 53% had the same service level as before, and only 11% saw a deterioration in service.

Increasing Monthly Bills in LIPURP

It appears that the longer a customer remains in LIPURP, and the more their payment amount is lowered, the more their average bill will increase. By their third or fourth plan year in LIPURP, most customer's average monthly bills have increased about \$10 *per month* over the amount estimated when they made the earliest LIPURP plan RETEC could find for them in the account history. Increases are smaller for customers asked to pay their full bill. The direction of this change is not surprising. If there is any price elasticity to demand, we would expect a subsidy to result increase consumption. The magnitude of the change is surprising, because electric consumption typically has low price elasticity. One explanation is that under LIPURP's level payment plan, the amount customers pay is decoupled from the bill at least during the plan year. Those paying a below-budget bill do not pay for increased use even in the longer term. So most LIPURP customers are facing zero marginal cost for increased usage.

Figure 3.18 Bill Amounts Increase Over Time for LIPURP Participants**Increase in average monthly bill in LIPURP**

(Difference between June 03 average bill and average bill coming into earliest LIPURP budget plan detected)

Percent of bill current budget asks LIPURP customer to pay:	Increase in monthly avg. <i>Number of LIPURP budgets in record</i>			Annualized result <i>Number of LIPURP budgets in record</i>		
	2	3	4	2	3	4
less than 30%	\$11.51	\$8.37	\$27.82	\$138	\$100	\$334
30%to 60%	\$9.15	\$12.96	\$11.08	\$110	\$156	\$133
60%to 95%	\$2.49	\$10.17	\$8.57	\$30	\$122	\$103
Over 95%	\$6.84	\$8.52	\$5.82	\$82	\$102	\$70

	Average Monthly Bill		Increase per Month	Increase per Year
	Earliest Plan	June 03		
Rate 101	\$55.97	\$62.48	\$6.51	\$78.12
Rate 105	\$79.86	\$88.21	\$8.36	\$100.26
Rate 108	\$121.37	\$128.60	\$7.23	\$86.73

Our analysis of month by month account history also showed this increase for the entire study group of customers who were in LIPURP in June of 2003. RETEC did not find such large increases in the random sample of other accounts, suggesting that this increase is largely the result of program participation. RETEC also compared LIPURP usage to average usage figures for all residential customers. These averages also increased during the same period, but increases were roughly twice as large for general service and water heat LIPURP customers. RETEC speculates that since they face no marginal cost, these customers may have increased their use of electricity for supplementary heating in winter months.

Collection Activity Avoided for LIPURP Participants

To gauge the impact of LIPURP upon collections activity, RETEC studied collections history for over 1400 customers (drawn from both samples) who had a full year of history in LIPURP by June 2003 and who also had 365 days of history before their first LIPURP join date. In this case RETEC compared a rolling pre-post period defined as 365 days before and after each customer's joining period (we excluded the days immediately before and after joining from the analysis.) Obviously, this analysis excluded the many transient customers who had less than the 25 months of continuous account history required, and many other customers who joined LIPURP for the first time in the last year (2/3 of current participants). For the customers studied, RETEC found there were, in the electronic account management history:

- 4 fewer letters sent
- 3.1 fewer incoming calls received
- 2 fewer outgoing calls
- and .95 fewer field visits made

Given the costs Allegheny estimates for each of these events (see Appendix A), the apparent total savings were at least \$24.37 per account per year. This offsets the marginal per-participant administrative cost of LIPURP. RETEC found no evidence that terminations for nonpayment decreased. There was a slight increase in the terminations noted for the stable customers used in the collections activity analysis, from .5 per year per hundred customers to 1.8 per hundred customers.

RETEC then conducted the same analysis for more transient accounts with less than 365 days of continuous history before they joined LIPURP. Projecting annual rates from the available days of pre-LIPURP history, RETEC found highly similar results. Observed terminations for this more transient group increased from 2.1 to 2.8 per hundred customers per year. However, we could not discern how many of these customers were terminated at their former account, so the actual number of terminations might have decreased.

4. Other Universal Service Programs

4.1 How Many Customers Have Participated in Universal Service Programs Recently?

According to Allegheny's report on Universal Service Programs in 2002, in that year:

- 1,273 households received services from LIURP;
- 824 households participated in CARES;
- 1,477 Allegheny customers received a Hardship Grant;
- 6,036 customers received a LIHEAP cash grant.

A minority of the LIHEAP grant recipients are in LIURP, suggesting that many households eligible for LIHEAP use that program and cover their bill without any significant payment problems.

4.2 LIURP

Our analysis of program records (see Appendix A) shows that about half the customers with two or more years in LIURP and high or extreme levels of use have already and recently been treated by LIURP- yet their average annual use remains high in June 2003. This led us to question the effectiveness of the LIURP intervention.

RETEC's quick review of LIURP results provided by Allegheny suggests that this program may not be a cost-effective use of rate payer dollars. Figure 4.1 shows that Allegheny itself has found no net reduction in bills for electric heat or baseload customers.

FIGURE 4.1 LIURP UTILITY BILL IMPACTS FOR PROGRAM YEAR 2001

	Electric Heating	Electric Water Heating	Baseload
Number of Jobs in Analysis	107	521	25
Estimated Annual Bill Reduction	No Savings	\$20	No Savings
% of Billings Paid in Pre Period	88%	85%	91%
% of Billings Paid in Post Period	103%	99%	101%

Source: Analysis by Allegheny Power

While any cost is high when net savings are zero, the per job costs of LIURP suggest that savings should be substantial. Figure 4.2 shows RETEC's analysis of 2002 LIURP costs reported to the PUC.

If we make the generous assumption that LIURP installed improvements have a 20 year lifetime and a 3% annual decay rate¹¹, each kWh saved in year one translates into a lifetime savings of 15.2 kWh. At a generation cost of about four cents each, Allegheny can supply the same stream of “kWh savings” for 61 cents. Thus to be a more cost effective alternative than generating power and giving it away free to low-income customers, each dollar spent on LIURP should result in at least 1.6 kWh of first year savings. If we multiply the fully loaded average job costs by this factor, we get a number of kWh that should certainly be discernable in a before after comparison. The fact that savings are not readily evident suggests this emperor has no clothes. RETEC recommends that Allegheny assess what energy savings potential remains in the market, and consider developing a more targeted and/or lower cost approach to deliver those savings. Otherwise, the dollars are better not spent or should be targeted to additional subsidies.

Figure 4.2 LIURP Costs and Expected Savings if Cost Effective

Cost analysis for 2002 LIURP			
	heating	water heat	baseload
number of jobs	331	901	41
average cost	\$2,464	\$566	\$420
total cost	\$815,584	\$509,966	\$17,220
job- related costs	\$1,342,770		
total program cost	\$2,217,965		
Inferred administrative cost	\$875,195		
Fully loaded average job costs			
	heating	water heat	baseload
	\$4,069.99	\$934.91	\$693.75
Cost effective number of kWh per dollar spent	1.6	1.6	1.6
Expected FY savings	6,512 kWh	1,496 kWh	1,110 kWh
	.063 per kWh		
Expected FY savings	\$410	\$94	\$70

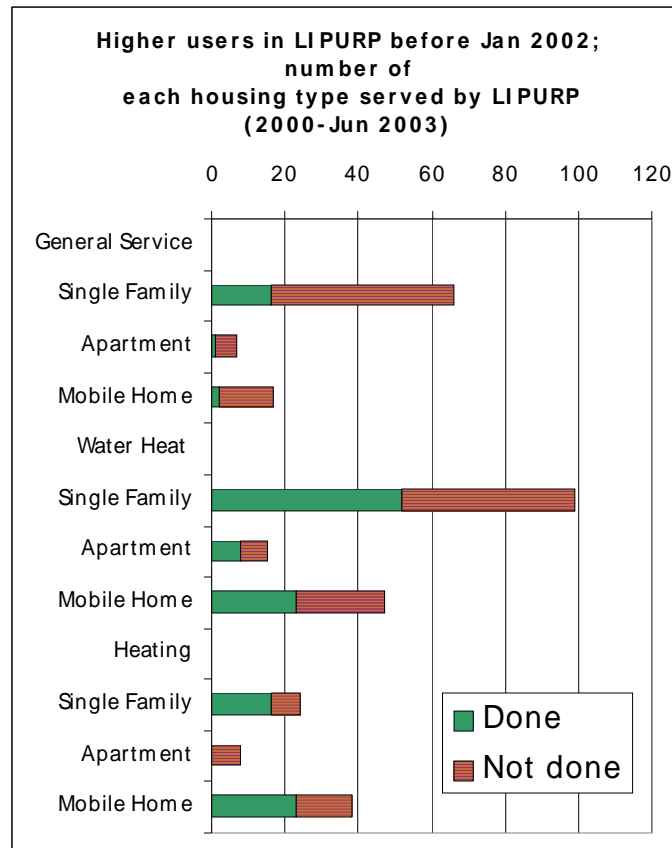
4.3 Linkage

Universal Services refers all high use customers for LIURP services, and staff report that many customers are eager to receive their visit and call to follow up if one is not scheduled quickly. However, RETEC found that a substantial number of high use customers are not being quickly served by LIURP. This may be because they were already served in the last seven years, or because of the year-long residency requirement typical of LIURP programs. Figure 4.3 shows

¹¹ These assumptions are indeed generous. RETEC conducted research on measure persistence for a residential low-income energy conservation program funded by Connecticut Natural Gas and found that many measures are not longer in place five years later. Low-flow shower heads and aerators were removed, and some houses were vacant, demolished, or had burned down. The “missing measures” were no longer contributing to a stream of savings.

that about 50% of the high use LIPURP customers have been served, with a higher percentage for home owners and heating customers.

Figure 4.3 Percent of High and Extreme Users served by LIPURP since 2000



4.4 LIHEAP

RETEC analyzed LIHEAP revenue for heating customers joining LIPURP at various times in the last three years. We counted the number of heating customers with incomes low enough to qualify for LIHEAP, and looked at utilization rates as well as total dollars received. There has been a marked increase in the number of heating customers obtaining LIHEAP and the total dollars received as customers join and stay in LIPURP. However, one third to one half the eligible heating customers in LIPURP are not yet using LIHEAP. Details are shown in Appendix A. We suggest that Allegheny reduce its subsidy contribution by an amount estimated equal to the amount of LIHEAP grants the customer can obtain, in situations where the Allegheny contribution alone would cover the gap between the payment amount and the retail bill. As a result, any eligible heating customer failing to use LIHEAP would see their balance rise. This would provide a talking point during recertification, and a motivation to use LIHEAP.

5. Recommendations

RETEC finds LIPURP to be a smoothly run, customer-friendly program that reaches its intended market and operates with low administrative costs. These recommendations are offered to optimize performance of a program that is already running well. They are also offered from the evaluator's perspective. While Allegheny appropriately strives to run an efficient helpful program that complies with regulatory guidelines, the evaluator looks at the entire energy assurance system in the state, and seeks ways to improve it better balancing the varied needs of low income participant customers with the needs of the other ratepayers who ultimately provide the subsidies. In an economy where the median income has dropped two years in a row, and all but the very rich have lost purchasing power for years, many of these ratepayers are also struggling to make ends meet.

While RETEC has made some of these recommendations to other utilities, some are unique and reflect lessons learned in this evaluation. For instance, LIPURP demonstrates that many arrangement-seeking households with incomes below 150% of poverty can pay their bills with no subsidy (at least in a service area where rates are low). A percent of bill discount plan would have given them a subsidy that some of them arguably did not need¹². This caused RETEC to re-examine the percent of income approach, and develop modifications that overcome the objections we have often expressed towards it. Also, LIPURP makes shortfall-covering credits contingent upon customers paying their share, but allows for catch up payments. This combination of incentives and flexibility has resulted in a very high percentage of LIPURP customers paying their asked amount¹³.

Assess the costs of change

Allegheny has a program that functions smoothly, with low administrative cost, and manages 20,000 customers many of whom have grown accustomed to its procedures. Any changes other than slight course adjustments could be somewhat painful to make. RETEC perceives several possibilities for improving program design and operation, however, only some of these have enough clear value to outweigh the costs of change. Our recommendations could therefore be triaged as follows:

¹² Appendix A includes a comparison, for nine hypothetical non heat customers, of the subsidies they receive under LIPURP vs. the subsidy they would receive in Duquesne's discount plan.

¹³ RETEC is aware of only one other program that has struck this balance, the 3-way payment plan developed by Connecticut Natural Gas for heating customers, who must pay up their amount by a fall and spring deadline to receive matching funds from the utility. Allegheny's approach is probably superior because customers always have an incentive to catch up and are less likely to fall into delay they ultimately cannot afford.

- 1) low hanging fruit- modifications that we believe to be improvements, that could be incorporated relatively quickly without much disruption to other aspects of program operation;
- 2) high value modifications worth considering but likely to affect other aspects of program operation, advisable only with careful planning and possibly implemented with other changes in an integrated way;
- 3) low value modifications- paths not taken that might be of interest to another company copying Allegheny's program design, but are unlikely to provide enough benefit to Allegheny to be worth the effort of changing them.

Because Allegheny staff is more familiar with workflow and with computer algorithms than we are, they can better assess implementation difficulty and may therefore perform this triage differently.

Fine-tune current program design

In this section RETEC has listed some changes that we classify as improvements that could be implemented fairly quickly without interfering with the program basic design and workflow. In some cases, these changes could be temporary improvements until more complex changes are made.

Adjust percent of income scale for family size

Revise the calculation matrix used by the program to determine customer budget amounts. The current "amount to pay" slope is too steep- customers lose benefits too quickly as their household size rises. Adjust the "percentage of income to pay" for household size with the goal that payment amounts for larger households will not increase faster than bills increase as a function of family size. Generally reduce the "amount to pay" slope thus increasing benefits for many participants with high use in the 75% to 120% range. This change will provide more subsidy dollars for some households, and reduce the number of households who receive no budget reduction. (See a sample adjusted scale for heating customers in the Appendix.) It will also increase the need for shortfall-coverage credits¹⁴. However, for heating customers eligible for LIHEAP, the available credit should be reduced by the likely amount of the LIHEAP grant.

The goal is not to obtain a subsidy for everyone with incomes below 150% of poverty! Now that LIPURP manages all low-income payment arrangements, it has a sizable minority of customers who in the past would have eventually paid their way out of debt without a subsidy. And if subsidies were offered to everyone, some customers who never needed payment arrangements will eventually come forward to obtain the subsidy.

¹⁴ RETEC believes this is a superior alternative to another strategy of giving all participants at least a 20% budget reduction. Households over 100% of poverty with low and modest bills may not need these discounts. And households with extreme use may need more than a 20% reduction.

Eliminate shortfall credits for full bill payers

Consider dropping the practice of applying credits in high use months to the accounts of customers who are paying the full budget amount (unless doing so throws an irascible wrench into computer routines). If they come out of winter with their budget deficit paid off by Allegheny credits, they will be more tempted to opt out of the program in the summer time, and less inclined to apply for energy assistance. If they opt out of the program or move, Allegheny will have paid down their balance for them and they will escape paying this amount themselves. Should they close their account with a balance, Allegheny ratepayers are no worse off paying for a write off later instead of a credit earlier. Since the current system is working and not very expensive, this is may be a low priority or “path not taken” suggestion.

Raise minimum payment amounts

RETEC perceives two issues related to minimum payment amounts. First, we believe minimum payment amounts are too low. They are typically lower than the amounts households routinely spend on phone and cable. (36% of LIPURP budget amounts are less than self-reported telephone bills.) They cover only a small fraction of the bill for high users, promoting or allowing poor energy/housing choices by customers. RETEC believes that it is appropriate for utility ratepayers to fund subsidies up to 50% of the bill, but inappropriate for ratepayers to provide much deeper explicit subsidies for long periods¹⁵. Major housing affordability initiatives are needed, but they should not be funded through utility residential rates (a regressive funding mechanism).

The second issue related to minimum payment is the substantial gap between the minimum payment amount and the available subsidy credits for high and extreme users, even if LIHEAP cash grants are applied by heating customers.

Some alternatives to consider:

- a) With warning and as customers recertify, raise minimum payments to \$25 for general service, \$30 for water heat, and \$45 or \$50 for heating accounts. These amounts approach 50% of an average-use bill.
- b) (Also) Require subsidy-receiving customers to pay at least as much for electricity as they pay for cable TV. Obtain their cable TV account number and permission to verify their cable bill.

¹⁵ Those customers who wish to have only level 3 or 4 service can already obtain long-term, deep subsidies from fellow ratepayers.

- c) Require customers to pay at least 50% (40%?) of their anticipated annual bill. At the same time, allow credits sufficient to cover the remainder.¹⁶ This will eliminate the current coverage gap that exists for high use customers and can drive their balance higher. RETEC prefers a 50% (60%?) subsidy limit to the absolute dollar limits specified by the PUC. Utilities have high fixed costs, and the marginal (total societal) cost of providing additional kWh is about 50% of the bill. From this viewpoint, the absolute dollar subsidy limits are unfair to those with extreme high use. We can afford to subsidize 50% of an astronomically high bill, if the person assisted is paying their half and therefore covering the marginal societal cost of the energy they use. Another drawback of the subsidy limits suggested by the PUC is that there is no intermediate limit for water heat customers between the \$560 specified for general service customers and the \$1,400 PUC limit for heating customers. Judging by relative size of average bills, water heat customers should be allowed a \$700 subsidy if the absolute limits continue to be used.

Allow for short periods when customers do not make their full co-payment

Allegheny reports that the PUC is now expecting utilities be fairly aggressive in collecting CAP amounts. RETEC believes the desire to collect the full CAP payment obligation should be balanced by the recognition that many low income households pass through periods of several months when they cannot pay their budget amount (especially if and when the budget amount deemed affordable entails no discount or only a slight discount!).

With higher minimums, there may be times when customers cannot pay their bill in full. There is a lot of flexibility already in the system of protections in Pennsylvania that allows customers to not pay or underpay for periods of several months. Many LIPURP customers currently are making fewer than six payments a year. Allegheny allows customers to receive shortfall-reduction credits when they catch up missed payments, a wise flexibility feature in LIPURP. If even more flexibility is needed Allegheny might create a special fund that could provide additional one-time short term credits (3 to 6 months) while a customer moved, took in a boarder to share expenses, etc. These would complement Dollar Energy grants that are not available year round, and are only available AFTER one fails to pay. However, the alternative of adding to the balance is not a bad one. Allegheny could temporarily exempt from collections activities LIPURP customers who have paid at least \$25 in the last month, and staff could counsel customers facing difficulties to pay at least that much until they can catch up on their co-payment amount.

Revise the prompt payment reward

Instead of forgiving 20% of the remaining pre-plan balance, forgive 20% of the full balance at the time the award is won OR 20% of the original pre-plan balance, whichever is the larger. This will

¹⁶ In practice, credits should be reduced in anticipation that eligible customers will use available LIHEAP funds to cover part of the gap.

help customers whose high use and low budget caused their balance to rise during the program year. This could be an interim change; elsewhere RETEC suggests replacing the end-of-year reward with a monthly prompt-payment credit.

Provide budget counseling

For 36% of current LIPURP customers their (reduced) budget is lower than their telephone bill. We suggest that Dollar Energy go on a crusade to get LIPURP customers using low cost and subsidized telephone plans.

Many LIPURP customers could benefit from budget counseling sessions or workshops (if they perceived a benefit in attending). This is part of the program design that has received little attention as the program ramped up to manage 20,000 customers. One possibility is for Dollar Energy to publish and mail 4 times a year a little newsletter with tips for “Managing on a Shoe String”. Customers could be paid \$20 for every tip they submit that is published. The most recent issue could be sent to each new applicant along with any forms they need to sign. Another possibility is to offer spendthrift customers a coupon good for a budget counseling experience. It costs nothing if customers aren’t interested, but it might prompt others to participate.

Counsel high use customers.

Accounts with exceptionally high useage absorb a large portion of LIPURP shortfall-covering credits. Extreme use causes rising balances for some of LIPURP’s poorest participants. An energy educator who can visit once in seven years is not a sufficient resource for dealing with LIPURP customers with extreme use. RETEC suggests that Allegheny use a residential energy expert to study ten to fifteen cases of extreme use, determine what appliances and practices account for this use, and then consider designing a programmatic response. Some possibilities to consider

- a) re-institute the customized energy-focused interview and print-out that Dollar Energy staff offered when the program was smaller, but do this only for high use customers who appear interested, starting with the extreme users and starting with a small pilot project. Perhaps designate and train one or two staff as the high use experts, and funnel high-use applicants and re-certifying customers through them.
- b) add a computer program that flags sudden increases in use and prepares a daily or weekly report of accounts with soaring usage. Customers focused on paying a level budget bill may not notice a spike in kWh / actual bill that might be due to a water heater leak. Call or write flagged customers, alert them, and find out what is going on.
- c) create a position for a high-use variant of the CARES rep, who is very knowledgeable concerning homes and appliances, good at talking with people, and available to travel as needed.

- d) authorize replacement of inefficient air conditioners for indigent customers with medical conditions requiring air conditioning.

Verify and target needs

Stigmatize participation

Having a little social stigma to participating erects a gentle barrier so that customers who do not need assistance will not apply. It is better if the LIPURP subsidies are not considered an entitlement like a Senior Discount.

Consider changing the subsidy component of the LIPURP program name to "Helping Hand", to emphasize that neighbors are helping neighbors. Ask folks applying how long they think they will need help with their bill. Let them tell you how long they will need help. Some may request less than a year's assistance.

Customers with a budget reduction of more than \$100 per year (currently about 50% of the caseload) could be required to send back to Allegheny a signed document with a print out of the major income sources and expenses they estimated during their phone call, acknowledging that Allegheny has the right to make visits to their residence to audit this information, and giving Allegheny permission to contact with their gas, telephone, and cable provider to verify expenses. They could supply account numbers for those providers. The form could also give Allegheny the right to sue to recover any subsidy amounts given them based on inaccurate information. This request should not bother someone who truly needs the program's help, but it may, at minimum expense, discourage those applicants who can afford to pay their bills from claiming subsidies they do not need.

Use more face to face verification

Allegheny relies heavily upon self-reported financial information. PPL social agencies found in 1997 and in 2002 that one third of customers who reported themselves eligible on the telephone were found to be ineligible when they came to a face to face interview at a local agency. PPL agencies felt that keeping face to face verification was very important. RETEC interviews with LIPURP customers found at least one third who have substantially more income than was revealed to Dollar Energy.

To monitor the accuracy and completeness of self-reported information, RETEC suggests that Allegheny require face to face verification at a collaborating agency (or in the home, for the homebound) for a randomly selected 5% of customers. Results should be monitored carefully, and the percentage to verify face to face can be raised or lowered depending upon results. Results may also suggest certain "red flags" that should prompt staff to request face to face verification.

Consider requesting face to face verification interviews for all customers who will receive more than \$X in credits, but target these required interviews only to households that meet certain "red flag" conditions. Allegheny could set this threshold amount high at first, say at \$500 per year,

then possibly lower it as time allows and in response to results from the random verifications described above. Candidate “red flag” conditions include:

- Un-allowed expenses over \$100, or cable bills or telephone over \$50
- Income below 120% of poverty, but no use of food stamps in last six months (this might be verified electronically)
- Income below 120%, no use of LIHEAP by heating customers
- Adults in household who have no preschool children, no disability, and are not over 65. If these potential workers are required to spend some of their own time to qualify for a subsidy, some will decide to skip the process.

This might be implemented with a two-step enrollment process. Customers could be given an immediate budget plus 5 agreement, until they verify their eligibility for a pending reduction in budget amount via a face to face interview. Then customers who did not show up for the interview would already be on an arrangement.

RETEC recognizes that face to face verification requirements adds administrative cost, and is inconvenient for customers. This is why we recommend a selective, flexible approach that focuses on certain customer groups and takes advantage of available information concerning customer participation in LIHEAP and other programs administered by the PA Department of Welfare¹⁷.

Allow for LIPURP plans of varied length

Ask customers needing a subsidy how many months they think their family will need assistance. Set the recertification interval to 3, 6,9,12, or 18 months (or any number between 3 and 18) depending upon the financial situation.

There are many reasons for this: some unemployment is seasonal, many lay offs or waiting periods last less than a year, many are “looking for work” and may find it. At least one third of the comments noted in LIPURP applications suggest a need of 3-6 months. It is silly to automatically subsidize an entire year of energy if less help is needed. Customers who still need the program will take action to recertify. Those who do not will quietly lapse into normal payment arrangements. When their LIPURP subsidy expires, it might be nice to have a letter telling them to either a) call LIPURP if they still need a special Helping Hand, or b) call ###-###-### to make a regular payment arrangement, so they aren’t shocked by suddenly having a huge balance to pay. Implementing plans less than a year in length might require a reworking of the computer programs that manage the subsidy bucket.

¹⁷ To the extent that Allegheny accepts payments at a number of locations in the service area, arrangements might be made for customers enrolled in the food stamp program to show or swipe their food stamp card or other DPW identification at those remote payment locations, to verify their continued participation in DPW programs.

Link to LIURP

Require an expert high-use assessment for extreme users before making a long term subsidized payment plan with them. Allegheny does prioritize these customers for LIURP treatment. Here is another use for a 3 month plan length. Duquesne will not even start a CAP plan until a high user has a LIURP visit.

Record keeping and administrative reporting

Information on each LIPURP Plan

It would help evaluation, monitoring, and planning for LIPURP and other account management strategies and payment formulas, if one or another database stored, in a readily exported format, data for each arrangement and budget plan, including the variables shown in the lists shown below.

Desired Variables for Tracking of Payment Plans

Account Number	Budget payment amount (if level amount set)	Family size
Customer Number (carries across changes in account)	"Plus" amount asked each month	Number of children
Social Security Number	Plan length/recert date	Gross Income
Date of payment plan or budget	Plan close date	Net Income
Type (LIPURPL, other)	Plan fate (completed, recertified, modified, customer died, moved, etc)	Housing Expense
AR balance when plan made		Unreimbursed medical expense
Avg. bill amount when plan made		Other Social Security numbers in household

Allegheny does retain customer financial statements in its collection system, and should back up this tape quarterly to support long term analysis of payment behavior and payment plans for low-income customers.

Tracing customers over time

Whenever the customer management system is overhauled, RETEC suggests adding a customer number identifier that can travel with a customer when they move. LIPURP should collect social security numbers for all household residents.

Administrative reporting

Dollar Energy could add to its Monthly LIPURP Collection Report the number of customers receiving forgiveness grants and shortfall credits, as well as the total amount of those credits. This gives a good indication of payment regularity. (This information is tracked on another company report.)

Dollar Energy should develop a formal ongoing method to assess how many customers get through on the first call, etc. Allegheny call center supervisors no doubt have sufficient expertise to help design a telling set of metrics.

Help customers leave LIPURP

Now that LIPURP is a low-income budget plan, and no longer a membership program, all low-income customers needing a payment arrangement or subsidy come to Universal Services. More than half of these customers will sooner or later have incomes above 150% of poverty. LIPURP staff has been focused on the challenge of getting customers into the program. However, it is also important to have smooth ways to help customers wean themselves from LIPURP. The current “outplacement” routine is to ask customers to recertify, have them not respond, then the customer receives a bill showing their entire balance as the amount due. This can cause some consternation! Allegheny should give some thought as to how to ease the transition out of LIPURP, with the goal of keeping many customers on an average budget payment plan. Some alternatives to consider:

- Allow LIPURP staff to make “Plus \$15” budget arrangements for alumni during the recertification dialog.
- Have LIPURP plans automatically adjust to normal budget arrangements when they expire, and tell customers this will happen.
- Send recertification/call-us letters from the customer service system instead of from the collections system. They may get more attention from customers, since all notices from the collections system look like termination notices.

If there are very smooth ways to manage customers as they cross 150% line, the company will be all the more able to provide LIPURP plans of shorter duration. The original CAP model assumed low income households had stable incomes and could be recertified annually. This is true for only about one third to one half of likely LIPURP participants. Others have fluctuating circumstances.

Shorten the script

When customers make a LIPURP agreement, Universal Service Reps recite a list of 6 obligations, including to abide by any changes the program might make, remain in the program for 12 months, recertify every year, etc. The script has been approved by the PUC. Customers are asked if they agree to these aspects. RETEC believes this perfunctory exercise delivers little value. Instead, stress the benefits of paying regularly or catching up on missed payments.

Consider Major Changes in Subsidy Plan

Consider alternative subsidy determination formulas

RETEC believes that an affordability program should target subsidies to households whose energy use is high relative to their ability to pay their bills for necessities. In short, the most help should go to households with the highest bills and the least resources to pay them. This ability to pay is a function of income and expenses. By taking family size into account, formulas that reference poverty levels take into account one major variant in household expense. It is possible to take several additional variables into account, without attempting the complete cash flow analysis that Pennsylvania utilities no longer perform concerning about 20 different expense categories.

There are three different approaches to calculating subsidies:

- 1) Asking participants to pay a percent of income (which should be adjusted for family size. RETEC has included in the Appendix a sample matrix for heating customers showing the effect of such an adjustment);
- 2) Asking participants to pay a percent of their retail bill (the percentage to pay should be adjusted by poverty level). (Poverty level is already adjusted for family size, though not quite as much as it should be.)
- 3) Asking participants to cover the marginal societal cost of providing the kWh they use, plus make a sliding scale contribution toward fixed costs, with the sliding scale contribution based on net poverty level.

Any of these three general approaches could, in turn, be applied in three ways:

- a) *one size fits all*, no modifications for households circumstances other than number of members in household.
- b) *general formula modifications*. Modify these formulas based on general payment-predictors such as number of children in household, renter status, medical expenses, or wage income. For example, reduce the percent to pay by a half percent for each child in the household, and by another half percent if households rent. If using gross income, adjust the percent to pay by 1% if most of the household income is earned. RETEC formulated several alternatives for a program in Louisville, Kentucky, basing the

modifications on the factors that we found to be empirically related to payment difficulties.

c) *family specific calculations.* Take specific family expenses into account. This approach has long been used to determine food stamp benefits. RETEC has developed an illustrative algorithm that uses this approach to determine energy subsidies, taking into account LIHEAP (and thus holding customers financially responsible for failure to use LIHEAP.) This approach would deliver smaller subsidies to those lucky enough to rent in subsidized housing or own their home with a paid-off mortgage, and larger subsidies to those with large un-reimbursed medical and child care expenses. This approach gives customers an incentive to document a few critical expenses that can be easily verified. No one has to make value judgments about another 20 less important expense categories. (See end of Appendix A.)

A look at expenses that vary significantly among households for reasons of bad luck is especially important for Allegheny given that all low income customers now come to LIPURP for agreements. Many but not all low income households have the ability to pay their full electric bill if they manage their expenses wisely. When LIPURP was a membership program, customers had to take some initiative to apply for assistance from a special program, and this effort, plus some stigma of asking for help, formed a semi-permeable membrane that led to some of the households to self-select out of the application process. Now 100% of the low income households with payment difficulties land on LIPURP's doorstep. So Allegheny needs a formula or approach that gives some low-income customers a full bill and gives others the subsidy they need.

The issue of extravagant or un-allowed expenses deserves closer consideration. In the recent drive to simplify CAP programs, the baby of "ability to pay" may have been lost along with the bath water. So we have LIPURP participants purchasing a \$3,800 large screen TV or a 2003 spanking new GM truck (financed at \$600 per month). In a world with long waiting lists for subsidized housing, how to help those afflicted with bad luck, without subsidizing folly? Utilities have largely abandoned the calculation of ability to pay, thinking it expensive and too complex. But there may be lessons to learn from the Food Stamp Program. The Food Stamp program has been in business a long time and distributes significant per-month subsidy amounts to large numbers of households, using formulas that make adjustments for a few important, verifiable expenses that can vary significantly from household to household. The calculation is computerized. It has an assets test to make sure households exhaust most of their savings before providing them with subsidies. Perhaps LIPURP should require those eligible for food stamps to get them before they receive a subsidy for energy.

One approach would be to have a two-level subsidy program. Offer all low-income customers a prompt payment credit of \$5 per month, and/or a 10% rate reduction. Offer a deeper subsidy to households on welfare or receiving Food Stamps, because these programs (unlike LIHEAP) look at expenses and assets as well as income. Offer the possibility of a deeper subsidy to other participants—calculated by more complex formulas that take more information into account, but make this determination available only to households willing to do face to face verification.

Allegheny should study these alternatives and model their impact on current participants. RETEC suggests that the most likely first step will be to modify the current percent of income calculation to reduce slope and bias against large households.

Conservation incentives / subsidy delivery mechanisms

The way a subsidy is packaged determines whether the cost of short-term consumption increases (and the savings from conservation) go to the company, or the customer, or are shared.

Currently, subsidized LIPURP customers have little incentive to conserve, because the company covers the rest of the bill (or adds it to the balance) when customers make their co-payments.

One alternative to consider is to provide a **fixed credit** in selected months, so that the remaining portion of the bill is the customer's responsibility, and is affordable in each month. RETEC evaluated a Louisville Kentucky affordability program that successfully used this approach with both budget and non-budget customers, by projecting monthly usage for specific accounts to determine monthly credits for the non-budget customers. In short, they predicted the gaps and provided a payment-contingent credit to cover the predicted gap between bill and the customer's payment, rather than waiting for the gap to occur then covering it. This would, however, result in a slightly fluctuating amount for customers to pay each month. It also places the burden of extreme weather on the customer. Nor is it clear how this would work with LIPURP's catch-up provision. Another alternative, used by Duquesne, is to charge the customer a percent of their bill each month. Then short-term savings are shared between the customer and the utility.

Another alternative is to limit the subsidy credits available, based on anticipated/appropriate usage and the customer co-payment. Tell the customer, "We expect you to pay \$## per month and use LIHEAP (if you are a heating customer). We will supply enough credits to cover the rest of the bill, *assuming that the weather is normal and you cut your usage by 5%*. If your usage goes up, the credits will not cover all of your bill, and the balance will go up." (In cases where there was extreme weather across the service territory, Allegheny could, on an ad hoc basis, add additional funds to each customer's supplemental bucket.) If their usage and balance increased, this would be a talking point when the customer recertified.

Payment incentives

Encourage but do not insist on regular prompt payments. Realistically, low income customers can pay more on an intermittent basis than they can with near perfect regularity. Therefore, at least 80% of any subsidy delivered should NOT be contingent upon prompt regular payment. However, payment responsibility should be emphasized, and subsidy credits can (as LIPURP now does) be granted only when customers catch up on any co-payments they have missed.

Because the Pennsylvania energy assurance system is sorely lacking in prompt payment incentives, it is appropriate that up to 20% of any subsidy delivered could be contingent upon on-time customer payments.

The current prompt payment incentive (at end of plan year, earn 20% forgiveness of balance if paid on time 10 months out of 12) has the following shortcomings:

- a) awkward to administer, and/or unfair for customers who move before a full year;

- b) customer balance could grow each year or never be reduced to zero;
- c) the incentive value is temporarily lost once a customer has failed in three months- there is no point in trying again until next year;
- d) the incentive works only for customers with a balance (although, those without a balance do not NEED any more incentive to pay on time. They are already doing an adequate job of paying.) These shortcomings may or may not outweigh the costs of change. Here are some alternatives to consider:
 - 1) each on-time payment earns a credit calculated as 2% of the amount the customer owed when they first entered LIPURP, or 2% of the balance when they started their current plan, whichever is higher. For customers who pay regularly and remain eligible, this will eliminate a balance over a four-year period.
 - 2) customers with no balance, or a prompt payment amount less than \$5, could receive a \$5 prompt payment credit each month to be used first against any remaining balance, then reducing the amount of their next month's co-payment. Given that the majority of intermittent payers in LIPURP are already catching up on their obligations, it may not be worth paying this much for increased payment regularity.
 - 3) Another expensive alternative would be to have each on-time payment lead to a \$5 credit held on the customer's behalf until December, when the total of these credits would be applied toward the customer's payment obligation that month. This has the same operational challenge of keeping track of on time payments across a possible mid-year change in address. Perhaps the credits could be applied when the customer moved, or in December, whichever came first.

Balances should not be quickly reduced (i.e. wiped out, or reduced in one or two years) because

- 1) this might encourage customers to let them grow again, and 2) some customer's financial plight is temporary and they can eventually afford to pay off balances on their own.

Recommendations for Pennsylvania

These recommendations are broadly applicable, at least to all electric company CAPS, possibly to all CAPS. Some require changes by the PUC, other state departments, or the legislature. Others could be implemented by Allegheny on its own.

Eliminate regressive taxes on impoverished customers

The Legislature could exempt bills charged to CAP participants from the PA Gross Receipts tax and reduce the "starting point" rate for CAP calculations accordingly. This will deliver a 6% discount "off the top." Utilities may be double taxed if they pay gross receipts taxes on "ghost" revenue that was billed to CAP participants but never received, then paid for in revenue billed other customers.

Use net instead of gross income to calculate eligibility and subsidies/co-payments

The current practice is unfair to working households, who have taxes and work-related expenses to pay. The nation-wide Food Stamp program immediately reduces any earned income by 20% before making calculations of benefit amounts. CAPs should do likewise. This initiative is recommended to all utilities and to the Bureau of Consumer Services.

Force Cable TV companies to offer a low-cost, minimum service package, or a 50% discount on their basic package

This initiative could be championed and perhaps implemented by the PUC. Many customers in the Allegheny area need cable to get any decent reception. Many are paying more for cable than for their Allegheny-subsidized electric bill. The cable industry keeps the cost of their basic package relatively high. The PUC should require that cable companies offer, at least to low-income households, a lower cost more limited package of channels than is now available, OR offer low-income customers a 50% reduction on the cost of the basic package.

Modify or drop Percent of Income formulas to calculate co-payments/subsidies

There is no empirical research supporting the notion that customers can afford to pay escalating percents of their income for energy. In fact, as families become less poor, they pay a *lower* percent of their income for energy. Empirical research shows that bill as percent of income is a poor predictor of bill payment behavior, and that percent of income calculations are unfair to large families *unless there is an adjustment for family size*. The PUC should drop Percent of Income altogether or add a family size adjustment.

Coordinate verification of eligibility

Statewide, have customers applying for Energy Assistance write on the LIHEAP application their electric company and account number as well as their main heating supplier. (This would require a revision to the application form?) The state can then electronically notify both LIHEAP-receiving fuel sources AND the electric companies when a customer has been found eligible for Energy Assistance. Electric utilities so notified might provide a \$10 credit to participating customers to create incentives for this registration process. There could even be a check off box for applicants to fill in if they want this benefit.

Consider electronic file sharing with the Dept of Public Welfare to identify food stamp and Medicaid recipients. Customers applying for LIPURP can be told this will happen, and/or sign a waiver permitting it. PECO arranged such a file transfer in the mid 1990s to reduce verification costs. RETEC has discussed with Department representatives the possibility of a state-wide program of electronic file sharing to coordinate verification for CAP program energy benefits. The department is receptive. Welfare verifies financial conditions with their food stamp recipients every six months, and has an aggressive fraud detection unit at work. Given economic

constraints, Pennsylvania cannot afford inefficient verification systems. Utilities dispensing modest subsidies of a few hundred dollars a year cannot afford to mount a large verification effort, but welfare subsidies ten to twenty times as large already support a major effort at verification and fraud prevention. It makes sense for utilities to match computer tapes to verify continued eligibility for their CAP customers.

Consider a “short form” LIPURP referral/application that could be filled out on a postage-paid folded post card, by DPW caseworkers whenever their clients are not already in LIPURP and are found eligible for food stamps, welfare, or Medicaid. The VNA might use this form as well.

Drop the year-long residency requirement for LIURP

Statewide, drop the requirement for one-year residency to receive LIURP treatment. Transient customers and the structures that house them are a large part of the nonpayment/high use problem; the one-year residency rule excludes customers and structures that most need LIURP. Evaluators can deal with some cases where the same customer has not been in a structure for a full year, or can exclude those cases, or make the building the focus of their evaluation, instead of the customer household.

Conduct longitudinal studies of low-income households

This initiative could be coordinated by the PUC or by several utilities working together in western Pennsylvania. Work with a local school of social work to conduct confidential in-home interviews over a period of 5 to 10 years with 20-30 low income different households currently enrolled in CAPs or having difficulty paying their bills. The goal would be to document the ups and downs of these households, their moves and changes and spending habits, and their interactions with utilities and social agencies.