

# Maryland Public Service Commission

Electric Universal Service Program  
Evaluation

Final Evaluation Report

May 11, 2007

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## TABLE OF CONTENTS

<b>1.</b>	<b>Executive Summary</b>	<b>1-1</b>
1.1	Overview of EUSP	1-1
1.2	Evaluation Methodology	1-1
1.3	Evaluation Context	1-3
1.4	Process Evaluation Key Findings	1-4
1.5	Impact Evaluation Key Findings	1-8
1.6	Conclusion	1-9
1.7	Overall Funding	1-11
<b>2.</b>	<b>Introduction</b>	<b>2-1</b>
2.1	Overview of EUSP	2-1
2.2	EUSP Background and Logic Model	2-2
2.3	Evaluation Plan Summary	2-6
2.4	Evaluation Context	2-8
2.5	Report Organization	2-10
<b>3.</b>	<b>Process Evaluation</b>	<b>3-1</b>
3.1	EUSP Performance	3-1
3.2	EUSP Outreach and Enrollment	3-16
3.3	EUSP Administration	3-23
<b>4.</b>	<b>Impact Evaluation Key Findings and Recommendations</b>	<b>4-1</b>
4.1	Purpose of the Impact Analysis	4-1
4.2	The Design and Implementation of the Impact Analysis	4-1
<b>5.</b>	<b>Conclusions and Recommendations for Further Review</b>	<b>5-1</b>
5.1	Recommendations	5-2

## Appendices

<b>APPENDIX A:</b>	<b>Process Interview Results</b>	<b>A-1</b>
<b>APPENDIX B:</b>	<b>Demographic Analysis Results</b>	<b>B-1</b>
<b>APPENDIX C:</b>	<b>Retrospective Bill Payment Assessment Results</b>	<b>C-1</b>
<b>APPENDIX D:</b>	<b>Data Collection Instruments</b>	<b>D-1</b>
<b>APPENDIX E:</b>	<b>Survey Methodology and Response Rates</b>	<b>E-1</b>
<b>APPENDIX F:</b>	<b>Results of the Customer Survey</b>	<b>F-1</b>

## 1. EXECUTIVE SUMMARY

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### 1.1 OVERVIEW OF EUSP

Maryland's Electric Customer Choice and Competition Act of 1999, passed by the General Assembly and signed into law by the Governor, established restructuring of the electric industry in Maryland and created the Electric Universal Service Program (EUSP) for low-income electric customers. The purpose of the EUSP as stated in §7-512.1(a)(1) is "...to assist electric customers with annual incomes at or below 150 percent of the federal poverty level." This legislation directed the Public Service Commission (Commission or PSC) to establish the program and to provide administrative oversight to the agency administering the program—the Department of Human Resources, Office of Home Energy Programs (OHEP). OHEP also administers the Maryland Energy Assistance Program (MEAP). EUSP, MEAP, and the Commission sponsored Universal Service Protection Program ("USPP"), all use the same program application.

EUSP includes three main components: bill assistance, arrearage forgiveness, and low-income weatherization. Program participants receive bill assistance that is apportioned over 12 months through the budget billing system of the customer's electric company. Under this system installments where the program pays a portion of the electric bill and the customer pays a portion of the electric bill. Participants are eligible for a one-time arrearage forgiveness grant through the program. The weatherization component of the EUSP is not part of this evaluation.

### 1.2 EVALUATION METHODOLOGY

The Commission hired PA Government Services Inc. and Innovologie LLC (the PA/Innovologie team) to conduct a process and impact evaluation of the EUSP from July 1, 2004, to June 30, 2006. The two year period allowed time to establish a program baseline for the impact evaluation and then to follow participants for an additional year. This evaluation of EUSP includes the bill payment and arrearage forgiveness components of the program but *not* the weatherization component.

#### 1.2.1 Process Evaluation Activities

The following activities supported the process evaluation:

- *Program documentation review and program theory logic model.* To understand EUSP operations and identify issues in need of further investigation, the PA/Innovologie team thoroughly reviewed program documentation. Based on review, the PA/Innovologie team drafted a program theory logic model that systematically describes EUSP operations and expected outcomes. The program logic model was finalized after review by Commission and OHEP staff at the evaluation start-up meeting.
- *Interviews with program design and delivery staff.* The PA/Innovologie team interviewed key members of OHEP's staff and discussed issues with them as needed throughout the evaluation. A census of 23 EUSP local administering agencies (LAAs) and the City of Baltimore were also interviewed in the first year of the evaluation. Finally, evaluators interviewed key Commission staff members about their program oversight role and the future direction of the program in the first and second years of the evaluation.

## 1. Executive Summary. . .

- *Interviews with utility EUSP contacts.* In the first year of the evaluation, the PA/Innovologie team interviewed two to five EUSP contacts at each of the six participating Maryland utilities.<sup>1</sup>
- *Interviews with EUSP stakeholders.* Also in the first year, the PA/Innovologie team interviewed persons at three EUSP stakeholder organizations including the Office of People's Counsel and two local fuel fund managers.
- *Customer surveys with new 2005 EUSP participants and the low-income comparison group.* In the second year of the evaluation, the PA/Innovologie team completed telephone surveys with 387 EUSP participants new to the program in 2005 and 151 households that were part of the low-income comparison group (referred to as near-neighbors, discussed in the next section). Both of the survey groups were randomly selected. Surveys were conducted in January–February 2006.
- *Demographic Analysis.* The PA/Innovologie team completed a demographic analysis for the January 2005 interim report based on analysis of the EUSP Program Year (PY) 2004 database, 2000 Census files, and other secondary information sources as documented in the report. Key information has been updated for PY2005 and PY2006.

### 1.2.2 Impact Evaluation Activities

The primary component of the impact evaluation was a pre-/post-program *bill payment impact assessment based on utility records*. This analysis is of participants new to the program in PY2005, hereafter called new participants. The analysis also included three comparison groups, referred to as: continuing participants, all households, and near neighbors. The four groups are defined below.

1. **New participants** signed up for the program between July 1, 2004, and June 30, 2005 (PY2005) and had not previously participated in the program.
2. **Continuing participants** participated in the program prior to June 30, 2004 and in PY 2005
3. **All households** (nonparticipants) are a random sample of households within the utility service territory.
4. **Near neighbors** (nonparticipants) are households within a few doors of the new participants and who did not participate in the program in PY2005.

The impact assessment design—consisting of both pre- and post-program data and comparison groups—allowed for the assessment of the net impacts of the program on new participants' behaviors and arrearages. The evaluation collected approximately twelve months of pre-program and twelve months of post-program data for the identified sample groups.

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<sup>1</sup> Utilities included in this evaluation are: The Potomac Edison Company d/b/a Allegheny Power (Allegheny), Baltimore Gas & Electric (BGE), Choptank Electric Cooperative, Inc. (Choptank), Delmarva Power & Light Company (Delmarva), Potomac Electric Power Company (Pepco), and Southern Maryland Electric Cooperative, Inc. (SMECO).

In addition, the customer survey conducted as part of the process evaluation included questions about the program's impact on bill payment behavior, arrearage amounts, service disconnection, and overall household condition for new participants and near neighbors.

### 1.3 EVALUATION CONTEXT

Average unemployment rates suggest stable economic conditions in Maryland during the two-year evaluation period. However, energy prices rose dramatically. In just one year, 2005, the price of fuel oil rose 76 percent and natural gas rose 67 percent<sup>2</sup>.

The average retail price of electricity for residential customers remained around nine cents per kWh through this period.<sup>3</sup> At the beginning of the evaluation, no Maryland utility had yet switched to market based retail electric rates. In PY2005 (July 1, 2004–June 30, 2005), Pepco and Delmarva Power made the switch to market based retail electric rates for residential households. A portion of EUSP participants are located in these two utility territories. BGE made the switch to market based retail electric rates effective July 1, 2006, but data collection had ceased at the end of the previous month and is therefore unlikely to include the effects of this increase.

Table 1.1 details EUSP funding and participation levels from program inception in 2001. EUSP participation has continued to climb, while funding levels have remained stable at \$34 million through program year 2006.

**Table 1.1**  
**EUSP Program Funding Inception through Evaluation Period**

Time Period	PY2001	PY2002	PY2003	PY2004	PY2005	PY2006
Program Funding	\$34 million	\$34 million	\$34 million	\$34 million	\$34 million	\$34 million
Program Participation	56,245	58,263	69,781	72,930	80,825	83,233
Average EUSP direct payment grant	\$343 <sup>4</sup>	\$457	\$420	\$393	\$363	\$410

Source: Maryland Public Service Commission, Electric Universal Service Program, Year 1–Year 5 Reports.

OHEP staff report that the average grant (as reported in Table 1.1 above) has not trended down even though more people were served through the program because in PY 2005, OHEP changed the way benefits are calculated to more closely match benefits to household needs. In addition, annual program funds were not fully expended, in other words the program was not fully subscribed until PY 2006, which also explains why average benefits have not fallen to-date.

<sup>2</sup> [www.electricenergyonline.com](http://www.electricenergyonline.com)

<sup>3</sup> Department of Energy, [http://www.eia.doe.gov/cneaf/electricity/epm/table5\\_6\\_a.html](http://www.eia.doe.gov/cneaf/electricity/epm/table5_6_a.html)

<sup>4</sup> For FY 2001 and 2002, the initial average grants were \$270 and \$287 respectively. At the end of the program year a supplemental grant was issued with funds that were unspent. For FY 2001, an average of \$73 was sent and an average of \$170 was issued in FY 2002. Grants were only sent to those households of record at the end of the year. In FY 2001, the supplemental was sent to 53,551 households and in FY 2002 to 52,745 households. The reported average includes both the initial and supplemental grant.

## 1. Executive Summary. . .

In 2006, OHEP received some State General Funds to cover shortfalls in EUSP funding. A final estimate of the amount of those funds is not available at this time. For PY 2007, EUSP funding has been increased by \$3 million. The new EUSP funding amount \$37 million is in legislation as permanent and paid through the ratepayers, specifically, the commercial and industrial rate classes. Additionally, the program eligibility guidelines have been increased to 175 percent of the Federal Poverty Level. Although we believe that this is an interesting caveat this factor is not included in this evaluation.

### 1.4 PROCESS EVALUATION KEY FINDINGS

Process evaluation findings are based on the program documentation review, demographic analysis, customer surveys, and interviews with staff representing the Commission, OHEP, LAAs, utilities, and stakeholders.<sup>5</sup> The key findings from the process evaluation fall into three categories:

- EUSP performance;
- EUSP outreach and enrollment; and
- EUSP administration.

#### 1.4.1 EUSP Performance

- EUSP continues to increase its participation numbers, with rural counties generally capturing a higher percentage of the eligible population than urban counties. Participation has increased 48% since the first program year, PY2001. Additionally, PY2006 saw a record number of applicants.
- From year-to-year, about a third of EUSP participants do not re-apply for the program. When asked in the customer survey about reasons customers had not re-applied to the program yet, the two primary reported reasons were: they haven't had time to apply (18%) and they didn't receive an application in the mail (15%). A positive reason cited by some for not re-applying is because the household is now more financially stable, indicating they have now "graduated" from the program. This appears to be the case for approximately five percent of new participants.
- Several LAAs reported that they see many low-income households that are just over the 150% of the federal poverty eligibility level who have significant need and insufficient disposable income to meet their electric bills. This finding was also discovered in the customer surveys. The program has made changes to address this issue. For PY 2007, EUSP will serve customers at 175% of the federal poverty level.
- EUSP is meeting a need of Maryland's low-income population by reaching participants with high energy burdens and decreasing participants' average energy burden. Further, the customer surveys provide evidence that the program is reaching those in great need of electric assistance. Monthly electric costs are the household expense that participants are the most concerned about meeting on a day-to-day basis, followed closely by heat and shelter.

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<sup>5</sup> It is important to note that interview results represent respondents' opinions and perspectives and may not represent program facts.

## 1. Executive Summary. . .

- The program reached new households in 2005 whose demographics suggest they are less financially stable households that need program assistance:
  - Almost a third of new participants did not have the equivalent of a high school education; two-thirds rented instead of owned their home
  - A quarter owed back rent or mortgage payments
  - Over half of households did not have a member who had paid employment the prior month
  - Two-thirds of households did not have a credit card. Those who did almost all carry a month to month balance.
  - Over a third had significant medical bills
  - Over a quarter did not have either a savings or checking account
  - Almost half reported cutting back on energy consumption, entertainment, and/or food in the last two years in order to decrease their household bills.
- The majority of LAAs and utilities believe budget billing helps households learn to meet and maintain their energy bills on an on-going basis. However, the budget billing structure faces the impediment of households' limited incomes, creates some participation barriers, and contributes to customer confusion regarding their utility bills. The customer survey indicated that budget billing is positive from a participant's point of view. Almost all (94%) of participants said they were satisfied with their experience with a budget billing plan. There is evidence that over time budget billing may be having a positive effect on bill payment behavior.
- EUSP is fairly well-coordinated with the pre-existing Maryland Energy Assistance Program (MEAP), although LAAs and utilities advocate greater consolidation to the extent possible. The program also coordinates with other assistance programs, but to a lesser extent. While new EUSP participants are fairly well-connected to other social programs, there is room for improvement. Over half of new participants surveyed said they participated in Medical Assistance, but less than half reported receiving other kinds of assistance (e.g., food stamps, cash assistance).
- EUSP has significant room to improve its capabilities to help households meet their energy bills through self-help and education strategies. Customer surveys indicated that when customers apply in-person, the program is doing a good job of providing effective energy education. New participants who received energy education through the program were highly satisfied with the information they received. In addition, over half of new participants who received energy education said they had made changes in their energy consumption as a result of the education. However, the majority of applications are processed by mail and these participants do not receive the energy education. This is an area for improvement.

### 1.4.2 EUSP Outreach and Enrollment

- EUSP's increasing participation numbers suggest that outreach is effective. At the same time, continued outreach efforts are needed as a third of new 2005 participants surveyed reported that they had not previously applied to EUSP because they were not aware of the program. LAAs develop and submit outreach plans to OHEP annually. LAAs keep monthly outreach logs that detail outreach activities. OHEP also develops a statewide outreach plan to assist LAAs in their local outreach efforts.

## 1. Executive Summary. . .

OHEP efforts include print materials, press releases, and a toll-free automated number.

- New participants reported that the main ways they learned of the program was through word-of-mouth, agencies, and utility referrals. These are one-to-one contact methods and make clear the importance of getting the “buzz” on the street.
- Several LAAs said there is pressure for them to do more outreach to increase their number of applicants, but they are disinclined to do this because they are already overworked and having difficulty keeping up with the existing case load of applications.
- One utility raised the concern that some households make great sacrifices to maintain their service because they do not know about the program. As noted above, the majority of new applicants come into the program through utility and other crisis assistance referrals (e.g., fuel fund, charities, and other social programs). A broad-based awareness campaign may be most beneficial to those who do not make contacts with these agencies and are not in social networks where they might find out about the program.
- The majority of LAAs deal with repeat participants using a mail application process. This process has its merits in terms of reducing the burden on households for scheduling and attending an appointment as well as reducing administrative costs and helping LAAs cope with the application load, especially as the number of applicants increases. The program would need many more administrative resources without mail applications. However, the mail application has limitations as well. Face-to-face contact offers opportunities to provide energy education and assess needs for other services which are more difficult or impossible to provide by mail.
- The majority of new participants said they filled out an application in-person at a local agency. The majority of these repeat applicants are processed by mail. This is consistent with LAA reports, who say they often will see new applicants in-person and process repeat applicants by mail.
- Participant satisfaction with the program application process was extremely high. Customers were most satisfied with the ease of filling out the application and were least satisfied with the time it took to receive notification of assistance.

### 1.4.3 EUSP Administration

- Overall, the utilities and LAAs report they have established good working relationships with each other although areas for improvement exist. LAAs coordinate with utilities to get required customer consumption information to process applications. Utilities differ from each other in how they provide consumption information, which affects the speed with which LAAs can process applications.
- The most frequently reported problem with utilities is the difficulty customers have in understanding their utility bill. LAAs report that many customers do not understand what portion of their electric bill they are responsible for and this leads to issues with how well the customers follow the budget billing plan set up through the program.
- LAAs report the need for a “feedback loop” in the system in order to keep track of their customers. The feedback loop would provide payment behavior from the utilities

## 1. Executive Summary. . .

to the LAAs after the clients are accepted into the program. At the present time, the information might need to be highly selective as the LAAs have limited resources to deal with the information.

- LAAs and utilities report that OHEP staff is helpful and that communication is at an all-time high. Nevertheless, both groups would like more written documentation concerning program changes and input into policy decisions. Utilities voiced a concern that the program is not consistently administered across agencies and hope written materials will help address this issue. There were also differing views of program goals on the part of LAAs that more written documentation could address. OHEP has updated its program manual and began delivering an annual update training in PY2005.
- LAAs report that EUSP local administration funding is not sufficient and their biggest administrative need is more staff. LAAs report that local jurisdictions are subsidizing the true costs of program administration. This is likely to continue to be an issue with the increasing number of applicants.
- While the current OHEP EUSP information system enables the processing of applications, it has a number of shortcomings. Significant improvements to the system would increase the efficiency of operations and free-up significant amounts of staff time. One key evaluation finding is that there is a substantial under investment of capital in the information system that needs to be remedied. Making that capital investment will release significant human resources that can then be used to address other program needs. A second finding is that there is a need for a full time staff member to manage the day-to-day operations of the system and to support the longer-term development of the system. There is also a need for a person to do trouble shooting for LAAs
- OHEP staff, LAAs, utilities, and stakeholders all said they believe that arrearage forgiveness is an important part of the program. The customer surveys support the need for arrearage forgiveness. Over a third of new EUSP participants reported that they had an arrearage averaging \$496 before participating in EUSP.
- Arrearage forgiveness was also the program component most reported as in need of improvement in PY2005. OHEP has responded to many of the concerns about the arrearage forgiveness component of the program and has made several changes starting in the 2006 program year and continuing in the PY2007 program year<sup>6</sup>. In addition, each LAA now has its own pot of arrearage forgiveness money, based on the prior year application numbers, to distribute at their discretion through the program year. These measures ensure that all Maryland counties and Baltimore City eligible EUSP participants have the opportunity to possibly take advantage of the arrearage retirement component of the EUSP. Although funding is distributed as aforementioned, OHEP and the Commission have confirmed that the need for the arrearage retirement component of the EUSP actually outweighs the benefits. The \$1.5 million dedicated to arrearage retirement usually is depleted within a 90 day period.

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<sup>6</sup> OHEP established an arrearage floor of \$100 and ceiling of \$2,000.

## 1.5 IMPACT EVALUATION KEY FINDINGS

The purpose of the impact evaluation was to assess how the payment behaviors of new participants changed before and after their participation in the program compared to changes in behavior of the three control groups with similar before and after data<sup>7</sup>. The impact evaluation examined six measures of behavior:<sup>8</sup>

1. Average payments made during the before or after study period (a monthly average of the amount paid whether or not a payment was made)
2. Average of the payments when a payment was made
3. Average elapsed days from billing to payment. This is an indicator of how long it took a household to pay its bill.
4. Average percent of total billings that were paid (completeness). This is an indicator of what proportion of the total bill the customer actually paid.
5. The regularity with which payment were made. This is the percentage of payments the customer made compared to the number of billings.
6. The continuity with which payments were made. This is an indicator of how consistently payments were made. For example, making nine payments in a row would yield a higher consistency score than making three payments in a row.

A key finding from the impact analysis was that the payment behaviors of new participants did not improve in the approximately one year period following their participation in the program. In fact, on each of the measures, payment behaviors deteriorated, and for five of the six behaviors the changes were statistically significant.

This finding is not surprising. As previously noted from the survey findings, many of these households were in arrears on utility, medical, and housing payments. In other words, these are households that came into the program with a high degree of need, some in “crisis,” and the EUSP payment could only partially meet this need. In fact, the electric relief provided by the EUSP program may have allowed these new participant households to deal with other

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<sup>7</sup> The four groups are discussed in the Evaluation Methodology section above. Briefly, they are new participants (PY2005), continuing participants, all households, and a sample of participants who were near neighbors of the new participants.

<sup>8</sup> For a household that used \$800 of electricity and paid its bills on-time in each of twelve months, the average monthly payment ( $\$800/12$ ) and the average payments made ( $\$800/12$ ) would be equal. Utilities usually expect payment in about 20 days so the elapsed days from billing would be approximately 20 or fewer. The customer would have paid 100 percent of total billings, made 12 of 12 payments, and had a consistency index of one. For a customer who paid \$666 of \$800 and skipped two payments, the average monthly payment would be  $\$666/12$ . The average paid when paid would be  $\$666/10$ . If this customer skipped the 4<sup>th</sup> and 9<sup>th</sup> payments but paid the remainder in 20 days that elapsed time would be 25 days. The completeness would be 83 percent, the regularity would be 83 percent, and the consistency would be .30.

## 1. Executive Summary. . .

equally pressing issues. This may explain why elapsed days increased and completeness of payment decreased. In addition, participants may not have fully understood how the program worked and had not had sufficient time to establish good bill payment habits.

The customer survey asked new participants about the program's effects on their bill payment behavior, arrearages and service connection. While the utility data shows that new participants bill payment behaviors did not improve during the study period, survey results suggest that participants' situation in regards to bill payment, arrearage amounts and service connection would have been *worse* if they had *not* participated in the program.

The good news for the program is that the payment behaviors of continuing participants improved on all six measures, and in five of the six cases the improvements were statistically significant. We attribute this to a least two factors. First, while short term improvements may be difficult for new participants for the reasons discussed above, it appears that sustained participation may allow participants to improve their behaviors. There is evidence of this from other studies as well<sup>9</sup>.

It is also important to note that continuing participants are a subset of their original cohort of participants. Some of the original cohort of participants no longer need the program and have dropped out. Others may have left the program out of need to find alternative living arrangements or for other reasons. This latter group may be households that were less likely to have improved thus leaving those who did improve.

For two of the comparison groups (near neighbor and all households), the payment behaviors changed by a statistically significant amount and in a negative direction indicating overall less good bill payment behavior on the part of these groups. Both of these groups exhibited a statistically significant decline in continuity.

It is also noteworthy that the all households group showed a statistically significant decline in completeness. What this means is that between the two time periods the all household group was less consistent about paying their bills and were paying a smaller overall percentage of their utility bills. Whether this is a short-term aberration or a longer term trend is unclear. With increases in utility rates, there may be a tendency to be less consistent about making utility payments.

### 1.6 CONCLUSION

We draw three basic conclusions from the process and impact key findings discussed above:

1. The program is reaching and helping households with some of the most severe needs.
2. New or recent participants in the program don't exhibit improved payment behaviors and probably cannot respond with improved bill payment behaviors in the short-term because they have other substantial needs as well.

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<sup>9</sup> Wisconsin Focus on Energy, final report of the three year longitudinal evaluation of the Wisconsin Home Energy Assistance Program, PA Government Services, September 2003.

## 1. Executive Summary. . .

3. Participants continuing in the program do show improvements in bill paying behavior.

EUSP is still a relatively new program. All interviewees indicate the program has greatly improved in its first five years of operation.

There are several quantitative indicators of program success including:

- The annual increase in serving eligible applicants, which represents a 48% increase since PY2001
- The program is reaching households in great need of electric assistance as seen by the high average electric burden of participants and the customer survey results showing the needs of these households and their concern with meeting monthly electric costs
- High participant satisfaction with the budget billing and arrearage component of the program as well as the application process
- Improved bill payment behavior on the part of *continuing* participants indicated by the impact evaluation.

These results indicate that the program is making significant progress in meeting its program goals<sup>10</sup>. There is evidence that the program is assisting low-income electric customers to *meet* their electric needs and encourage regular, prompt, and complete payment of electric bills **over time** (e.g., for continuing participants). The demographic analysis and customer surveys show the program is successfully targeting and attracting electric customers with high annual electric burden (home electric costs divided by household income) and need. In the survey, new participants reported fewer service disconnects after participation than before participating suggesting that they are better able to maintain service. The evaluation focused on *participant* behavior. For example, the impact evaluation payment indices did not include EUSP payments. At the *bill* level, a greater percentage of electric bills are being paid as a result of the program and this relates specifically to the program goal of making home electric costs more affordable for low-income individuals.

Several changes have been made to the design and administration of the program during the evaluation period that the evaluators believe have enhanced the program's progress towards its goals. These include:

- Providing more broad-based outreach at the state level and more support to LAAs in completing annual outreach plans
- Revising the arrearage forgiveness component so that funds are no longer distributed on a first-come, first serve basis and establishing an arrearage forgiveness floor and ceiling

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<sup>10</sup> The program goals are, briefly, to: 1) assist low-income electric customers meet their electric needs and encourage positive payment behaviors; 2) assist low-income electric customers maintain electric service; 3) target electric customers with the highest annual electric burden; 4) make home electric costs more affordable for low-income individuals; and 5) increase participant awareness of efficiency/conservation measures that result in more affordable bills.

## 1. Executive Summary. . .

- Distributing program benefits more fairly by changing from a benefits matrix to a benefit formula.
- Increasing program communication and coordination by producing and distributing program procedures and documentation, providing LAA staff training, and holding monthly calls with LAAs
- Expanding program benefits to the “working poor,” a group that was missed when eligibility was limited to 150% of the federal poverty level, by increasing the program eligibility level to 175% FPL for EUSP funds. Recommendations

### 1.7 OVERALL FUNDING

- With the increase in electricity rates, more assistance may be needed and more households may need assistance. We recommend that OHEP monitor the energy burden, the number of households needing assistance, and report this information to the PSC and the Legislature. A positive step forward in funding levels was made for PY2007.
- This program meets significant needs. We recommend that the PSC recommend to that the Legislature provide additional permanent funding as needed.

#### 1.7.1 Program Efficiency, Communication and Functioning

- We recommend that OHEP attempt to find ways to reduce the number of households that drop-out due to transaction costs. Two possible ways of doing this are to mail participants applications that are pre-filled and ask applicants to verify existing information and supply new eligibility information. A second option is to send an abbreviated application that only asks for certain key pieces of information (e.g., income) that need to be re-verified as well as any account or address update information.
- Evaluators recommend OHEP continue efforts to increase the consistency of program implementation by LAAs. We recommend that OHEP conduct annual update training for LAA staff, update the Operations Manual annually, release periodic newsletters with frequently asked questions, and continue current efforts to improve communication between OHEP and LAAs as well as between LAAs.
- We recommend OHEP address issues of equity that have been raised by 1) continuing to recognize the variations in the settings in which LAAs operate, 2) setting consistent goals (e.g., percentage of eligible households served) for LAAs, and 3) allowing LAAs flexibility in meeting these goals. Further, we recommend that agencies that fail to meet their goals be required to submit and negotiate an action plan to improve their performance. Agencies that excel in meeting their performance should be recognized by OHEP.
- Utilities and stakeholders noted that LAAs not only have different management styles, but they also have different understandings of the program. While we believe there is positive value in allowing LAAs flexibility in implementing the program as long as certain rules and guidelines are followed, we recommend that OHEP take steps to establish a clear and consistent understanding of the program’s goals and objectives.

## 1. Executive Summary. . .

- There is need for increased consistency in the way utilities administer EUSP. We recommend that the PSC task the utilities to work among themselves and in conjunction with OHEP, Commission Staff, and the LAAs to develop a uniform way to implement the program.
- We recommend program managers include utilities in monthly teleconferences or on a periodic basis to establish a venue for LAAs, utilities, and OHEP to regularly discuss issues.
- To increase communication, we recommend that utilities be included in the annual program update training as well as LAAs.
- To further increase communication, we recommend that the utilities, the Commission, the Office of People's Counsel, and external organizations such as the Fuel Fund and others receive copies of the updated operations manual and application materials annually

### 1.7.2 Program Outreach

- We recommend that the PSC ask the Legislature to provide funding to establish an outreach and education specialist position in the state OHEP office. The outreach and education specialist should have the proper background (low-income households) to effectively reach and communicate to the low-income population. Examples of types of duties this outreach and education specialist could perform are: coordinate statewide EUSP campaigns in the media, monitor and support LAAs' local outreach efforts, track and coordinate with utility outreach efforts, design consistent templates for LAAs and utilities to use to promote the program to their customers, and support a participant education program as discussed under recommendation 1.7.6, Education and Training.

### 1.7.3 Arrearage Forgiveness

- The evaluation results established the need for arrearage forgiveness and that the amount of arrearage forgiveness has remained fixed while direct bill payment funds have increased for PY2007. OHEP should propose increased funding for the arrearage forgiveness component of EUSP and the PSC should recommend the Legislature fund increased levels of funding for arrearage forgiveness. In addition, the arrearage forgiveness component should be considered for changes that can bring it more in-line with the program's goals of improving customer bill payment behavior. One way to do this would be to include a small arrearage forgiveness co-payment amount such as \$25.

### 1.7.4 Data System Improvements

- Improvements to the data system would increase the efficiency of LAA operations and help to reduce staffing issues. We recommend that OHEP establish a budget for a full upgrade of the data system and that the PSC ask the Legislature to fund that upgrade.
- We also recommend that the PSC ask the Legislature to fund a position for a full-time system manager for the data system.

## 1. Executive Summary. . .

- We recommend that OHEP provide systems training and update training to all LAA staff.

### 1.7.5 Education and Training

- We recommend that OHEP design a basic education program, which will require additional funds, that LAAs can use with EUSP applicants. At a minimum the education program should contain the following content:
  - What budget billing means as an average payment plan and what the expectations for the client to maintaining their portion of the bill;
  - How to read their utility bills, specifically covering what their EUSP bill credit is and what portion of their bill they are to pay each month; and
  - How clients can manage their energy use through behavioral changes and no- to low-cost energy saving measures.
- We recommend that OHEP train the LAA staff to deliver this content. Any other individuals participating in intake should receive the training as well.
- We recommend that all new EUSP applicants receive this education. We recommend the education also be extended to continuing participants. This could be done by having continuing participants sign-up in person at least once every three years so that they can receive the education or by identifying households falling behind in their budget billing payment to receive the education program.
- We recommend that OHEP establish a budget for the design of the education program, LAA staff training on the education program, and the increased administrative costs of providing the training and that the PSC recommend that the Legislature fund the education program and needed training.

### 1.7.6 Benefits Formula

- We believe the establishment of the benefits formula in lieu of a benefits matrix is a positive step. In light of increasing utility rates, we recommend that OHEP review the benefits formula annually to see to what extent it continues to meet the needs of people in the program. We recommend that the PSC recommend an EUSP benefits budget to the Legislature based on the formula and information about the populations expected to be served as supplied by OHEP.

### 1.7.7 Administrative Costs

- We recommend that OHEP develop a budget that adequately covers all administrative expenses including costs now being born by LAAs. We recommend that this suggested administrative budget then be presented to the Legislature by the PSC with a recommendation to adjust the percentage amount allocated to administrative expense based on that budget.

### 1.7.8 Role of EUSP in a Competitive Environment

- This analysis did not investigate the role of EUSP in a competitive environment therefore we will not submit any recommendations pertaining to EUSP and competitive suppliers.

## 2. INTRODUCTION

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The state of Maryland contracted with PA Government Services Inc. and Innovologie, LLC (PA/Innovologie team) to conduct an evaluation of their Electric Universal Service Program (EUSP). This evaluation report presents the results of the process and impact evaluation of EUSP conducted from July 1, 2004 to June 30, 2006.

This Introduction provides:

- An overview of EUSP
- The EUSP logic model
- Evaluation plan summary
- Evaluation context
- Organization of the remainder of this report.

### 2.1 OVERVIEW OF EUSP

Maryland's Electric Customer Choice and Competition Act of 1999, passed by the General Assembly and signed into law by the Governor, established restructuring of the electric industry in Maryland and created the Electric Universal Service Program (EUSP) for low-income electric customers. The purpose of the EUSP as stated in §7-512.1(a)(1) is "...to assist electric customers with annual incomes at or below 150 percent of the federal poverty level." This legislation directed the Public Service Commission (Commission) to establish the program and to provide oversight to the agency administering the program—the Department of Human Resources, Office of Home Energy Programs (OHEP).

EUSP includes three main components: bill assistance, arrearage forgiveness, and low-income weatherization. Program participants receive bill assistance that is apportioned over 12-months through some type of budget or average monthly billing system of the customer's electric company. Under this system the program pays a portion of the electric bill and the customer pays a portion of the electric bill. Participants are eligible for a one-time arrearage forgiveness grant through the program. The weatherization component of the EUSP is not part of this evaluation.

EUSP's program goals<sup>11</sup> are to:

1. Assist low-income electric customers to *meet* their electric needs and encourage regular, prompt, and complete payment of electric bills through bill assistance payments; arrearage retirement assistance; and energy education, conservation, and self-help strategies.

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<sup>11</sup> State of Maryland, Department of Human Resources, Office of Home Energy Programs, Electric Universal Service Program Proposed Operations Plan for FY 2004, submitted to the Maryland Public Service Commission, April 30, 2003.

2. Assist low-income electric customers to *maintain* electric service through bill assistance, arrearage retirement, and electrical energy efficiency (weatherization) services.
3. Target electric customers with the highest annual electric burden (home electric costs divided by household income).
4. Make home electric costs more affordable for low-income individuals through focused programs using available resources and holistic approaches to resolve chronic electric cost issues.
5. Increase participant awareness of efficiency/conservation measures that result in lower and more affordable bills.

## 2.2 EUSP BACKGROUND AND LOGIC MODEL

As one of the first tasks of the evaluation, we completed a program logic model to systematically describe EUSP operations and outcomes. The PA/Innovologie team led PSC and OHEP staff through a review of the draft program logic model at the project initiation meeting. The final program logic model, based on this review and data collected through subsequent process evaluation activities, is presented in this section (Figure 2.1).

The program logic model is a graphical representation of the program that can be used to communicate program activities and outcomes to managers, staff, other program implementers, stakeholders, and evaluators. We are using the program logic model as a roadmap for the evaluation, making recommendations for program improvement, and developing performance measurements.

The logic model summarizes the program's eight core activities (row with lavender background). Each of these eight core activities is described below:

1. **Legislative enabling and oversight.** EUSP is funded by a surcharge from ratepayers collected by utilities. The program is funded on an annual basis. The upper funding limit for the Program was originally established (and for the period of the evaluation) established by statute at \$34 million (See PUC Article §7-512.1(d). At the beginning of each program year, the PSC submits a funding request to the General Assembly, which may approve funding for the EUSP to the upper limit. The PSC is responsible for setting policy, establishing the framework for dealing with the utilities, and approving the plans for the program. OHEP administers the program.
2. **Administrative management.** OHEP is responsible for fiscal management, staffing, program planning, and budget development. The Commission approves OHEP's proposed administrative allowance, which is usually at least 10%. The details of this are worked out with the aid of a working group and lessons learned from prior experience and from other programs in Maryland and elsewhere in the United States.
3. **EUSP program infrastructure development.** Based on the program plans and budget, OHEP develops the program infrastructure needed to support EUSP. This includes: developing and modifying the intake criteria and procedures; developing the tracking systems that are needed to track funds and participants; and monitoring the Local Administrative Agencies (LAAs). The LAAs implement the program at the local

level, and provide application intake, processing, and outreach. The LAAs include county and city social service agencies and nonprofit organizations.

4. **Program marketing and outreach.** A key objective of EUSP is to make all eligible households that need assistance aware of the program. Outreach occurs in a variety of ways. Utilities and social service agencies make referrals when customers and clients seek help. Low-income, faith-based, and community organizations provide information to their members and constituencies. OHEP in conjunction with the LAAs and the utilities also hold expositions and application fairs; produce brochures, flyers, posters and mailings; and advertise through local media such as newspapers and cable.
5. **Intake and application processing.** Members of eligible households who have not previously participated in the program apply at LAAs. There is a standard application form and applicants are required to provide information such as household income, utility details, and information about other household members. Applicants continuing from a previous year may renew their eligibility for the program by submitting information through the mail or in-person. For most LAAs, households who participated in a prior year are sent a mail application and do not need to visit their LAAs.

LAAs are responsible for implementing the Maryland Energy Assistance Program (MEAP), the EUSP arrearage component, and ensuring that customers participate in the Utility Service Protection Program (USPP) as well as EUSP. The programs use a consolidated application form so applicants only need to complete one application to apply for all programs. Applicants' information is entered into a tracking system maintained by OHEP. Through the 2005 program year, applicant need was determined based on a benefit matrix that took into account poverty level and electric usage confirmed from utility records. Beginning in the 2006 program year, applicant need was determined by a formula that takes into account income, household size, and the prior year's energy consumption.

6. **Bill payment and arrearage reduction assistance.** When eligibility is confirmed and the level of benefits determined, the application is processed. On a biweekly basis, utility companies are provided with a hard copy or electronic file identifying households in their service territory that are receiving benefits. This file includes households' utility account numbers and the level of benefits. Within a few days, the utilities receive a check for the total amount of the benefits for households in their service territory. The utility is responsible for assigning the benefits to the appropriate accounts.
7. **Education and self-help strategies.** OHEP would like to do more with education and self-help strategies. Currently, an educational funding component is not included in the EUSP. LAAs reported that some education about budget billing and conservation actions is provided when LAA personnel meet face-to-face with clients or when clients inquire about budget billing. This was confirmed through the customer surveys. Customer surveys implemented with 2005 new participants found that the majority of new participants apply in-person to LAAs and approximately half reported receiving some type of energy or financial education.

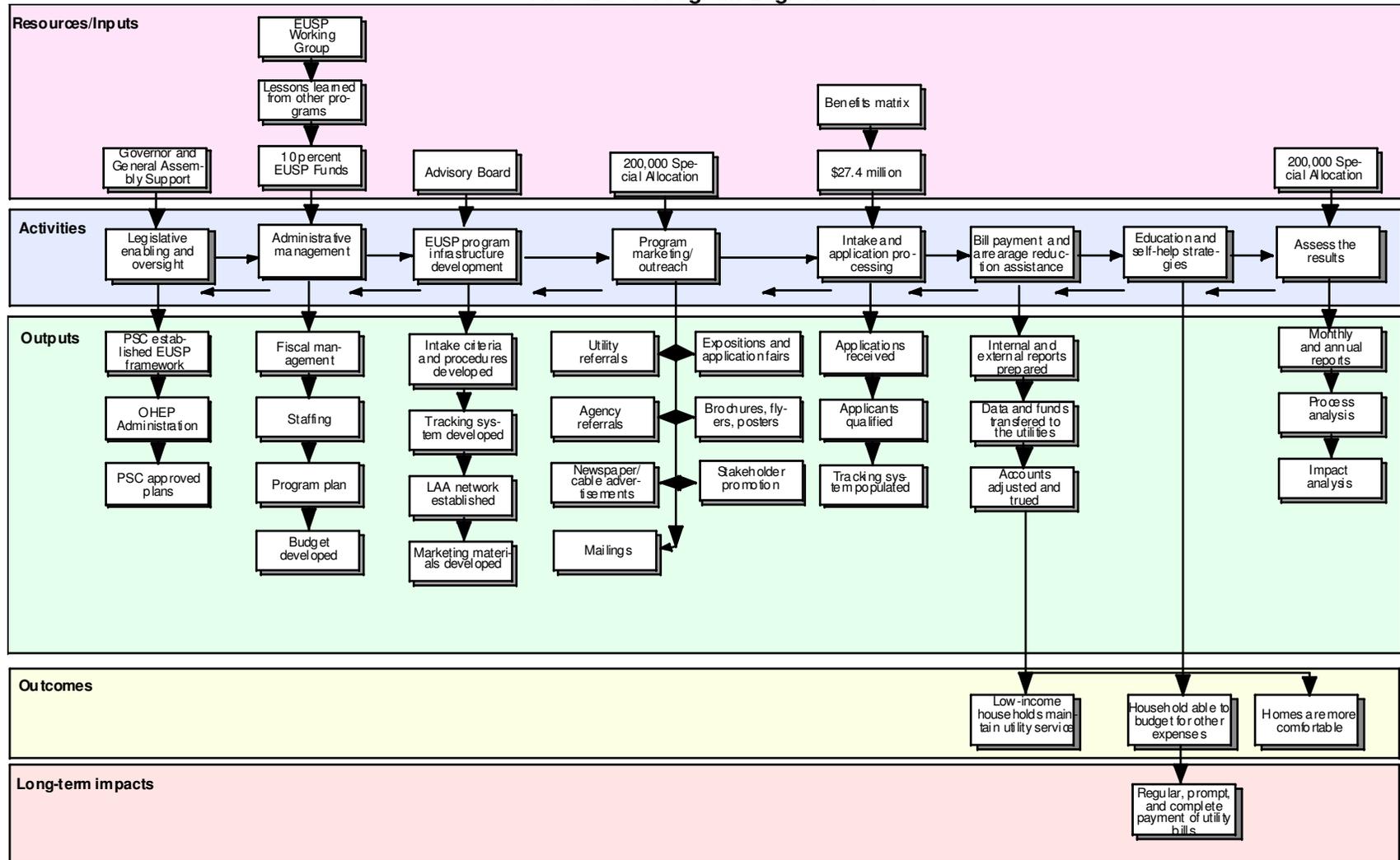
8. **Assessment and reporting.** Program results are assessed through a variety of mechanisms. OHEP produces monthly and annual reports. The utilities also provide annual reports to the PSC. In addition, the PSC has funded this evaluation to provide feedback about the program operations and impacts.

The area that is shaded green in the program logic model represents what happens as a result of the activities of the program. For example, marketing and outreach activities include utility referrals, expositions and fairs, agency referrals, and brochures, flyers, posters, and stakeholder promotions. The intake and application processing activity results in the applicants being qualified to receive benefits and the benefits being processed and entered into the database tracking system. The bill payment and arrearage assistance activities result in appropriate reports being generated, funds being transferred to the utilities, customer accounts being credited, and a truing of the accounts at the end of the year.

The yellow area near the bottom of the logic model represents the intermediate outcomes, which are that households are able to maintain their utility service, that they are able to budget for utility and other expenses, and that they are more comfortable in their homes.

The pink area represents the intended long-term outcomes of the program, which are that participants will modify their behaviors and will make regular, prompt, and complete payment of their utility bills.

**Figure 2.1**  
**Final EUSP Program Logic Model**



## 2.3 EVALUATION PLAN SUMMARY

The PSC in its oversight of the EUSP issued a Request for Proposals (RFP) on April 16, 2004. This RFP invited individuals and firms to submit proposals to provide an evaluation of the EUSP across a two-year time period (July 1, 2004, to June 30, 2006). This amount of time allowed for a baseline to be established and a one-year evaluation against the baseline. This evaluation of EUSP only includes the bill payment and arrearage forgiveness components of the program. It does *not* include the weatherization component of EUSP.

The PA/Innovologie team commenced work on the evaluation on July 1, 2004 (the beginning of the fifth program year of EUSP). This amount of time allowed for a rich evaluation of program policies, procedures, and impacts. The evaluation objectives were to:

- 1) *Identify internal and external areas for program improvements.* Examples of internal issues include EUSP coordination with the Maryland Energy Assistance Program (MEAP) coordination with LAAs; coordination with utilities; outreach efforts and enrollment processes; organizational structure; management effectiveness; administrative procedures; and staff resources. Examples of external issues include customer satisfaction, barriers to participation, and participant response to program interventions. These issues were examined through program documentation review, in-depth interviews with program design and delivery staff and other stakeholders, customer surveys, and a demographic analysis.
- 2) *Quantify the program's impacts.* The primary hypothesized EUSP program impact is changes in utility bill payment behaviors. We quantified changes in bill payment behavior attributable to the program through utility data analysis and customer survey results. We also characterized changes in customer behavior attributable to the program that lead to a reduction in or better management of electric costs.

Data collection activities completed for the evaluation included a combination of primary and secondary data sources. The data collection activities are detailed in sections 2.3.1 and 2.3.2.

The reader is referred to the EUSP Detailed Evaluation Plan (*PA Government Services*, August 9, 2004) for a complete description of the evaluation approach and activities.

### 2.3.1 Process Evaluation

The following data collection activities supported the process evaluation.

- *Program documentation review.* To understand EUSP operations, produce the program logic model, and identify issues in need of further investigation, the PA/Innovologie team thoroughly reviewed program documentation. The review included EUSP operation plans and comments, data and fund expenditure reports, outreach materials, the program application, the EUSP benefits matrix, participation statistics, Maryland Public Service Commission Universal Service Protection Program reports, and the OHEP data system.
- *Interviews with program design and delivery staff.* The PA/Innovologie team interviewed three key members of OHEP's staff and discussed issues with them throughout the evaluation period on an as needed basis. The topics discussed included the roles and responsibilities of the various staff members; the OHEP

information system; the effectiveness of current program features such as targeting and recruitment; management and administration, and marketing; and changes in the program throughout the evaluation period. The PA/Innovologie team also attended key meetings throughout the evaluation period such as monthly OHEP/LAA director meetings and the annual poverty and energy symposiums.

The PA/Innovologie team interviewed a census of EUSP local administering agencies (LAAs) in the first year of the evaluation. Evaluators interviewed twenty LAAs representing all twenty-three Maryland counties and the City of Baltimore. LAAs include Departments of Social Services, Community Action Agencies, local government agencies, and other public service agencies. Issues covered in the interviews included agency organization and structure, EUSP administration, outreach and enrollment practices, interactions with local utilities and OHEP, whether program components are working well or not, and how the program is impacting clients' lives including their ability to sustain payment of home energy bills. Finally, evaluators interviewed two Commission staff members about their program oversight role and the future direction of the program in the first and second years of the evaluation.

- *Interviews with utility EUSP contacts.* In the first year of the evaluation the PA/Innovologie team interviewed two to five EUSP contacts at each of the six Maryland utilities included in the impact evaluation.<sup>12</sup> Topics included EUSP administration, interaction with EUSP customers, the evaluation process, and how the program is impacting clients' lives including their ability to sustain payment of home energy bills.
- *Interviews with EUSP stakeholders.* During the first year of the evaluation, the PA/Innovologie team interviewed persons at three EUSP stakeholder organizations including the Office of People's Counsel and two local fuel fund managers
- *Customer surveys with new 2005 EUSP participants and the low-income comparison group.* In the second year of the evaluation, the PA/Innovologie team completed telephone surveys with 387 EUSP participants new to the program in 2005 and 151 households that are part of the low-income comparison group. Surveys were conducted in January–February 2006.
- *Demographic Analysis.* The PA/Innovologie team completed a demographic analysis for the January 2005 interim report based on analysis of the EUSP 2004 program year database, 2000 Census files, and other secondary information sources as documented in the analysis. The PA/Innovologie team has updated information to include 2005 and 2006 program year information for this final report. The demographic analysis compared EUSP participant demographic information to Census information at the county level. The demographic analysis also characterized a number of socio-economic indicators at the county level to provide a fuller understanding of the different circumstances of the counties and how these circumstances may be affecting EUSP participation.

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<sup>12</sup> Utilities included in this evaluation are: The Potomac Edison Company d/b/a Allegheny Power (Allegheny), Baltimore Gas & Electric (BGE), Choptank Electric Cooperative, Inc. (Choptank), Delmarva Power & Light Company (Delmarva Power), Potomac Electric Power Company (Pepco), and Southern Maryland Electric Cooperative, Inc. (SMECO).

### 2.3.2 Impact Evaluation

In the first year of the evaluation, the PA/Innovologie team completed a retrospective description of bill payment status based on utility records. The PA/Innovologie Team selected a sample of EUSP, MEAP, and Arrearage Program participants whose participation in these programs predated July 1, 2003, and continued through July 2004. Participants were mutually exclusive (i.e., one participant could not be in two samples). EUSP individuals sampled could be MEAP and/or arrearage participants but individuals within the MEAP sample could not have participated in EUSP or the Arrearage program. The retrospective study was designed to demonstrate that it was possible to calculate and describe the behavioral measures. The retrospective study did not attempt to assess effects by comparing behaviors before or after participation and compare those to a control or comparison group.

In addition, the customer survey conducted for the process evaluation included questions about the program's impact on bill payment behavior, arrearage amounts, service disconnection, and overall household condition. The results of the retrospective bill characterization are included in the appendix to this report.

The primary component of the impact evaluation is a pre-/post-program *bill payment impact assessment based on utility records*. This analysis is of participants who were new to the program in the 2005 program year (July 1, 2004–June 30, 2005, hereafter called “new participants”) and three comparison groups. The comparison groups are:

- Continuing EUSP participants
- A nonparticipant near neighbor sample (described in more detail below)
- A random sample of all residential customers

The impact assessment design—consisting of both pre- and post-program data for the participant and comparison groups—allows the assessment and comparison of the impacts of the program on new participants' behaviors and arrearages. The evaluation collected a minimum of twelve months of pre-program and twelve months post-program data for participants and the same amount of information for the comparison groups based on an assigned participation date.

Evaluators provided four Maryland based investor-owned utilities (IOUs), and the two larger Maryland based Cooperatives with a sample of participants and their account numbers and asked the utilities to provide billing and bill payment data. The PA/Innovologie team identified a near neighbor nonparticipant group based on ZIP+4 codes. Evaluators matched the near neighbor group to the latest program information from OHEP to eliminate participants from the near neighbor sample. Utilities randomly selected a sample of all residential customers and supplied it to the evaluators. The continuing EUSP participants were sampled from data available from the retrospective bill payment characterization discussed below.

## 2.4 EVALUATION CONTEXT

Prior to presenting the evaluation results, we present a brief summary of Maryland's economic, electric, and program characteristics for the evaluation period.

Average unemployment rates suggest stable economic conditions in Maryland over the two-year evaluation period. Maryland's unemployment rate averaged just over four percent in

## 2. Introduction. . .

2004 and 2005, a slight improvement over prior years. However, there was considerable variation in the average unemployment rate by county. For example, the City of Baltimore had an eight percent unemployment rate in 2004, which dropped to just above 7 percent in 2005.<sup>13</sup> Unemployment rates held steady in the first half of 2006.

Energy prices rose dramatically over the two-year evaluation period. Between 1999 and 2005, natural gas prices increased a total of 400 percent; fuel oil prices increased 300 percent; and coal prices rose 150 percent. In just one year, 2005, the price of fuel oil increased 76 percent and natural gas, 67 percent<sup>14</sup>. This was in large part due to the impact of the hurricanes at the end of the summer in 2005 that translated into extremely high natural gas and oil prices. While EUSP is an electric only program, changes in the prices of other fuels impact the ability of household to pay all of their bills because many households depend on propane, gas, and oil as their primary heating source.

The average retail price of electricity to residential customers remained around 9 cents per kWh throughout the evaluation period.<sup>15</sup> At the beginning of the evaluation, no Maryland utility had yet switched to market based retail electric rates. In program year 2005, Pepco and Delmarva Power made the switch to market based retail electric rates, although the majority of EUSP participants are not in these utility territories. We will break out key impact results for Pepco and Delmarva Power to see how the switch to market based rates affected program participation. BGE made the switch to market based retail electric rates in July 1, 2006 but the effect of this switch will not be seen in the evaluation results, which run through June 30, 2006.

Table 2.1 details EUSP funding and participation levels since the program began in 2001. EUSP participation has continued to climb, while funding levels have remained stable at \$34 million through program year 2006.

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<sup>13</sup> Office of Labor Market Analysis and Information, Bureau of Labor Statistics, <http://www.dllr.state.md.us>, Jan 2005.

<sup>14</sup> [www.electricenergyonline.com](http://www.electricenergyonline.com)

<sup>15</sup> Department of Energy, [http://www.eia.doe.gov/cneaf/electricity/epm/table5\\_6\\_a.html](http://www.eia.doe.gov/cneaf/electricity/epm/table5_6_a.html)

**Table 2.1**  
**EUSP Program Funding Inception through Evaluation Period**

<b>Time Period</b>	<b>PY2001</b>	<b>PY2002</b>	<b>PY2003</b>	<b>PY2004</b>	<b>PY2005</b>	<b>PY2006</b>
Program Funding	\$34 million	\$34 million	\$34 million	\$34 million	\$34 million	\$34 million
Program Participation	56,245	58,263	69,781	72,930	80,825	83,233
Average EUSP direct payment grant	\$343 <sup>16</sup>	\$457	\$420	\$393	\$363	\$410

Source: Maryland Public Service Commission, Electric Universal Service Program, Year 1–Year 5 Reports.

OHEP staff report that the average grant (as reported in Table 2.1 above) has not trended downward as more people are served because OHEP changed the way benefits are calculated to more closely match needs and benefits beginning with PY2005. In addition, annual program funds were not fully expended, in other words the program was not fully subscribed until PY 2006, which also explains why average benefits have not fallen to-date.

In 2006, OHEP did receive some State General Funds to cover any shortfalls in EUSP funding. A final estimate on that is not available at this time. For PY2007, the EUSP funding has been increased by \$3 million and will be paid through the ratepayers, specifically, the commercial and industrial classes.

## **2.5 REPORT ORGANIZATION**

The remainder of this final evaluation report consists of three chapters and supporting appendices. Chapter 3 presents key findings of the process evaluation. Chapter 4 presents key findings of the impact evaluation. Chapter 5 presents the evaluation's conclusions and recommendations for further review.

The supporting appendices provided in a separate document are:

- Appendix A provides detailed process interview results.
- Appendix B presents the demographic analysis results.
- Appendix C provides the results of the retrospective bill payment assessment from the first year of the evaluation
- Appendix D provides all data collection instruments including interview guides and the customer surveys
- Appendix E details the customer survey methodology and response rates
- Appendix F presents detailed results of the customer survey

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<sup>16</sup> For FY 2001 and 2002, the initial average grants were \$270 and \$287 respectively. At the end of the program year a supplemental grant was issued with funds that were unspent. For FY 2001, an average of \$73 was sent and average of \$170 was issued in FY 2002. Grants were only sent to those of record at the end of the year. In FY 2001, the supplemental was sent to 53,551 households and in FY 2002 to 52,745 households. The reported average includes both the initial and supplemental grant.

### **3. PROCESS EVALUATION**

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This chapter summarizes key process evaluation findings and recommendations. Process evaluation findings are based on the program documentation review, demographic analysis, customer surveys, and interviews with staff representing the Commission, OHEP, LAAs, utilities, and stakeholders.<sup>17</sup> We present key findings in the following three categories:

- EUSP performance
- EUSP outreach and enrollment
- EUSP administration.

#### **3.1 EUSP PERFORMANCE**

This section of the report summarizes key process evaluation findings that relate specifically to EUSP's stated goals in the following areas:

1. Participation rates and barriers to increased participation.
2. The program's ability to reach the neediest of the population, specifically those with high energy burdens.
3. The budget billing component of the program.
4. Coordination with MEAP and other assistance programs.
5. Customer education and self-help strategies.

##### **3.1.1 Participation rates and barriers to increased participation**

Participation in EUSP continues to increase with rural counties generally capturing a higher percentage of the eligible population than urban counties. However, the program may be encountering customer-perceived barriers that thwart the ability to serve a higher proportion of the eligible population.

PY 2006 saw a record number of applicants—83,233—as summarized in Table 2.1 in the Introduction. EUSP program participation has increased 48% since the first program year, 2001.

In PY 2004, EUSP served approximately 29 percent of the eligible Maryland low-income population when compared to 2000 Census information. In PY 2005, this increased to an estimate of 32 percent of the eligible low-income population and in PY 2006 to 33 percent of the eligible population. Additionally, the demographic analysis (detailed in the appendix) shows that rural counties consistently serve a higher percentage of their low-income population than do urban counties. Personnel in rural counties attribute the difference to being able to make better use of word of mouth and knowledge of their clientele over a period of many years.

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<sup>17</sup> It is important to note that interview results represent respondents' opinions and perspectives and may not represent program facts.

### 3. Process Evaluation. . .

The percent of the eligible population served is most likely an underestimate, as it does not exclude households that would not be eligible for EUSP for reasons other than income (e.g., electric account not in applicants' name).

Furthermore, this number should be viewed in context of the percent of the eligible population served by other similar programs in similar states. For example, LIHEAP, the federally-funded heating assistance program, has the same income eligibility guidelines as EUSP and relies upon the same local delivery infrastructure, but has been in operation for over 30 years. LIHEAP provides heating assistance to 16.9 percent of the eligible population in Delaware, 24.2 percent in the District of Columbia, 19.3 percent in New Jersey, 14.1 percent in Virginia, and 22.6 percent in Pennsylvania<sup>18</sup>.

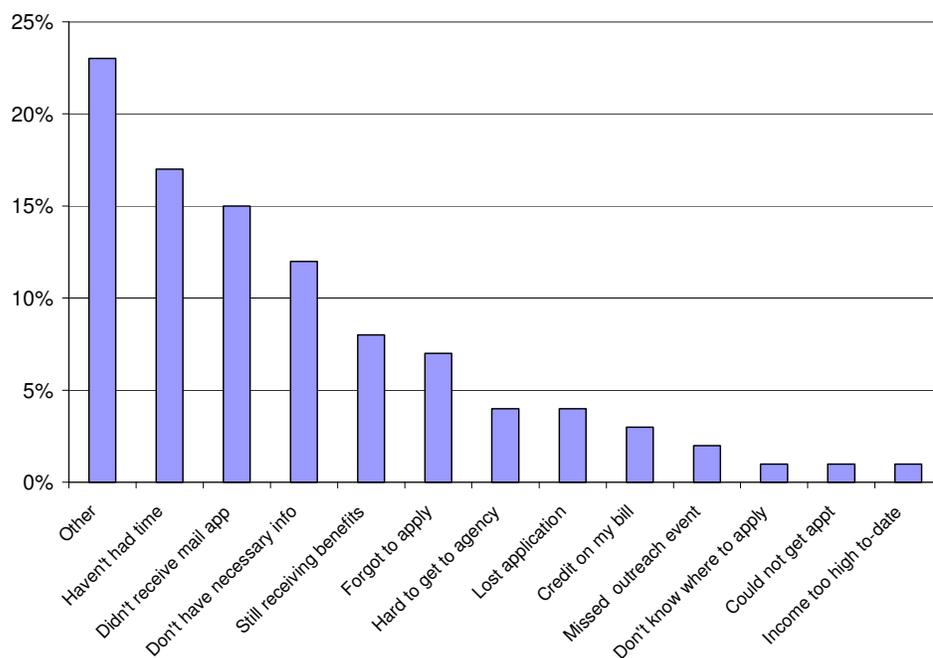
To some extent, the eligible population served through the program is a function of customer self-selection. Those who most need the program because of their high electric burden are more likely to search out and apply for the program. Households with more affordable electric bills relative to their income may chose not to apply even though they are aware of the program. Another interesting aspect about the number served is that from year-to-year, almost a third of EUSP participants do NOT re-apply for the program. For example, only 64.5% of 2005 program participants re-applied for program benefits in 2006 as determined through analysis of the OHEP program databases. Therefore, the number of unique households served *throughout the program years* is much closer to the Census number of low-income households served in *one single program year*.

The customer surveys further support the customer self-selection hypothesis. Forty percent of new 2005 participants said they had not re-applied for the program yet in 2006 at the time of the survey (January 2006 – February 2006). Over a third (36%) of the participants who had not yet applied for the program in 2006 reported they are not likely to reapply to EUSP. The main reasons for this are: they haven't had time to apply (18%), they didn't receive an application in the mail (15%), and other reasons as seen in Figure 3.1 below.

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<sup>18</sup> Mark Wolfe, "National Energy Assistance Directors' Association Issue Brief The Low-Income Home Energy Assistance Program Providing Heating and Cooling Assistance to Low-Income Families," Table 7 Total Eligible Households Receiving 2003 LIHEAP Heating Assistance.  
[http://www.neada.org/LIHEAP\\_Issue\\_Brief\\_01.pdf](http://www.neada.org/LIHEAP_Issue_Brief_01.pdf)

**Figure 3.1**  
**Why Customers Had Not Yet Reapplied (yet planned to reapply) TO EUSP**  
**(N=135)**



Source: new 2005 participant survey, February 2006, Question NP1A

Approximately three percent of respondents in the “other” category said that they were not planning to apply to the program because their household is now more financially stable. Households ‘graduating’ from the program because they are better off is a positive result.

In addition, another 9% of new participants said they were not planning to reapply to the program. Of these, about a third (39%) said they were not going to reapply because they felt their household was more capable. Six percent felt their bills were lower and they were able to pay them and 18% did not think they were eligible because their income was higher.

Many of these respondents reported getting jobs since applying to the program.

*“Right now I am okay financially, I'd rather that somebody who needs it, uses it.” –new 2005 EUSP participant not planning to re-apply in 2006*

*“I got a job and can make it on my own now.” –new 2005 EUSP participant not planning to re-apply in 2006*

Other reasons reported for not reapplying is the perception of the program as a welfare program or not worth the hassle or time involved in applying.

*“It is just like applying for welfare. It is not worth the money they would give me.” –new 2005 EUSP participant not planning to re-apply in 2006*

### 3. Process Evaluation. . .

LAAAs also reported they think customer perceptions affect whether households participate in the program. LAAAs said that some of the elderly view EUSP as a ‘welfare’ program and public housing occupants perceive the program benefits to be too small to be worth the hassle of applying (supporting the above self-selection into the program hypothesis)<sup>19</sup>.

Finally, several LAAAs also questioned whether the program is missing an important part of the low-income population—*“the working poor.”* These LAAAs reported that they see many low-income households that are just over the poverty level criterion but have significant need and not enough disposable income to meet their electric bills. This was also reported in customer surveys. One respondent who went to re-apply was not eligible because they were \$15 over the income limit.

Suggestions to address this issue are to allow deductions for medical and child care expenses. It was also suggested to change the income limit. For example, the unemployment benefits for single and temporarily unemployed individuals are just above the program eligibility threshold making these people ineligible for the program.

This issue is being addressed. For PY 2007, EUSP will serve customers up to 175% of the federal poverty level. OHEP will also use state general funds to serve customers to 200% of the federal poverty level.

#### 3.1.2 Program’s ability to reach the neediest of the population

EUSP is meeting a need of Maryland’s low-income population by reaching participants’ with high energy burdens and decreasing participants’ average energy burden. Furthermore, program participants report high levels of concern with meeting their monthly electric costs.

LAAAs, utilities, stakeholders, and customers all report that there is a significant need for low-income electric assistance provided by EUSP. Furthermore, this need has only continued to increase with rising energy prices.

*“This is a good program that has solved a lot of problems.” –LAA*

*“It’s a wonderful program. Lots of people wouldn’t have their electric on without the program.” –Stakeholder*

*“EUSP really helps people to come to ground zero with their electric bills and then move forward.” –Utility*

*“I’m glad this program is out there and I got the help. It saves me a lot of worrying.” –2005 EUSP participant*

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<sup>19</sup> Each year, OHEP staff update a Benefits Matrix based on annual electric consumption and three categories of poverty level (Level 1 (0 to 50%), Level 2 (51 to 100%), Level 3 (101 to 150%)) and a fourth category for customers living in subsidized housing. Households in subsidized housing receive a grant that averages approximately 28% of their electric usage, level 1 households receive a grant that averages approximately 80% of their electric usage, Level 2 averages 55% of usage, and Level 3 averages 40% of usage.

The reported need is supported by the quantitative analysis of program year 2004 and 2005 participants' average energy and electric burdens. One of the primary indicators of a household's ability to meet its energy needs is energy burden<sup>20</sup>. Energy burden is the percentage of income a household spends on energy (for example, electric usage plus natural gas usage). Research has shown that, on average, low-income households' energy burdens are significantly higher than those of median-income households. An expert consensus is that energy burdens greater than ten percent pose serious affordability issues to households<sup>21</sup>.

The average energy burden for EUSP participants was 25.0%.<sup>22</sup> The average electric burden was 15.7% (Table 3.1). These are well above the ten percent level. While the combined Maryland Energy Assistance Program (MEAP) and EUSP benefits decreased the average<sup>23</sup> energy burden 4.4% and EUSP benefits alone decreased the average electric burden 6.4%, participants' average energy and electric burdens still remain high at 20.6% and 9.3% respectively.

**Table 3.1**  
**EUSP Participants' Average Energy and Electric Burden<sup>24</sup>**

	<b>2004 Average Percent Energy Burden</b>	<b>2004 Average Percent Electric Burden</b>
<b>Without Program Benefit</b>	25.0%	15.7%
<b>With Program Benefit</b>	20.6%	9.3%

Source: OHEP Program Year 2004 and 2005 MEAP/EUSP Data System, Maryland Electric and Gas Rates published by the Department of Energy.

The customer surveys provide further evidence that the program is reaching those in great need of electric assistance. Customers were asked to rate their concerns about meeting a number of household expenses on a 5-point scale (1=no concern, 5=very concerned). Monthly electric costs was the household expense that participants were most concerned about meeting on a day to day basis (Table 3.2), closely followed by winter heating costs, medical and health expenses, and shelter (mortgage or rent). Participants were significantly

<sup>20</sup> Energy burden is not a comprehensive indicator of a household's ability to meet its energy bills because it does not take into account poverty level. For example, a family of four with the same income as a family of two will have a lower poverty level because poverty level is based on income and household size. Therefore, a family of four with the same energy burden of a family of two would most likely have more difficulty meeting their energy bill because their poverty level is lower.

<sup>21</sup> Colton, R. (1993), *Methods of Measuring Energy Needs of the Poor*.

<sup>22</sup> Due to data limitations, energy burden is only calculated for participants whose heating fuel source is natural gas. Customers who use bulk fuels for their primary heating source (i.e., fuel oil) are not included in the analysis of energy burden—approximately 20% of the EUSP population. All participants are included in the calculation of electric burden.

<sup>23</sup> Energy and electric burdens represent the proportion of recipients' income that are dedicated to these costs. The burdens are calculated by dividing the annual heating and electric costs by annual income. Average percent burden is the mean burden for all recipients from who cost and income data is available.

<sup>24</sup> Based on the PY2004 demographic analysis, detailed in the appendix.

more concerned about all household expenses than nonparticipants. This also supports the hypothesis that households who are in most need of the program are those that are applying.

**Table 3.2**  
**Customer Concern with Household Expenses**  
**(1=no concern, 5=very concerned)**

	Participants (N=387)		Nonparticipants (N=151)	
	Percent concerned (4 or 5)	Average (mean) concern	Percent concerned (4 or 5)	Average (mean) concern
Monthly electric costs	83%	4.4	57%	3.5
Winter heating costs	82%	4.3	62%	3.7
Medical and Health expenses	79%	4.2	61%	3.6
Mortgage or rent	75%	4.1	53%	3.3
Food expenses	66%	3.8	46%	3

Source: EUSP participant and nonparticipant surveys, January – February 2006, Question H1

Finally, the program reached new households in 2005 whose demographics suggest they are less financially stable households in need of program assistance (Table 3.3). For example,

- Almost a third of new participants do not have the equivalent of a high school education,
- Two-thirds rent instead of own their home,
- A quarter owe back rent or mortgage payments
- Over half of households did not have a member who received paid employment the prior month
- Two-thirds do not have a credit card; of those who do have a credit card almost all carry a balance from month to month
- Over a third have significant back medical bills
- Over a quarter do not have either a savings or checking account

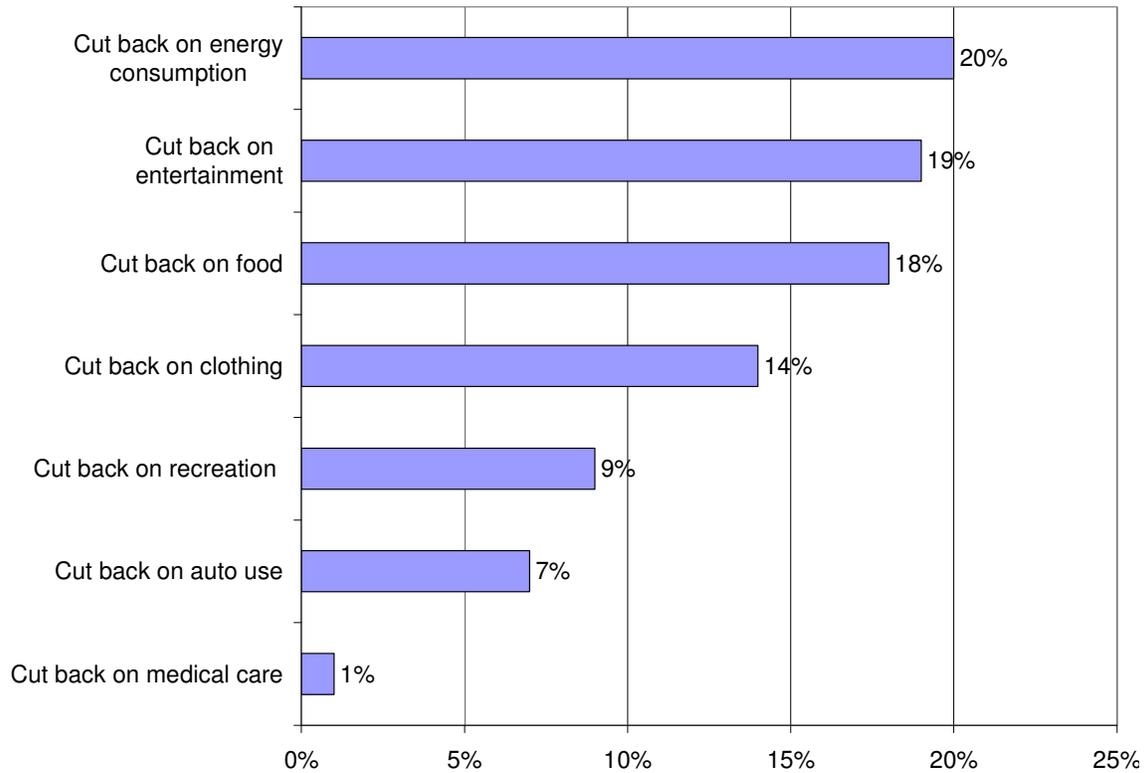
**Table 3.3**  
**New 2005 EUSP Participant and Nonparticipant Demographics**

Characteristic	Percent of Participants (N=387)	Percent of Nonparticipants (N=151)
Do not have a high school diploma or equivalent	30%	21%
Rent instead of own home	64%	28%
Owe back rent or mortgage payment	25%	5%
No member of household received paid employment the prior month	61%	61%
Do not have a credit card	65%	29%
If have a credit card, carry a balance of more than \$500 from month-to-month	56%	68%
Owe more than \$250 for medical bills	36%	20%
Do not have checking or savings account	26%	10%

Source: EUSP participant and nonparticipant surveys, January – February 2006, D series questions

Finally, over half (56%) of new participants reported making lifestyle reductions in the last two years in order to decrease their household bills. Of those who made changes, a fifth reported cutting back on energy consumption and entertainment closely followed by food.

**Figure 3.2**  
**Lifestyle Reductions Made in Last Two Years**  
**to Decrease Household Bills (N=387)**



Source: EUSP participant and nonparticipant surveys, January – February 2006, D series questions

### 3.1.3 Budget billing component of the program

The majority of LAAs and utilities believe budget billing helps households learn to meet and maintain their energy bills. However, budget billing makes it difficult for households’ to juggle priorities, creates some barriers to participation, and contributes to customer confusion regarding their utility bills. Nevertheless, the customer survey indicates budget billing is positive from the customer’s point of view.

The majority of LAAs and utilities are in favor of EUSP’s budget billing component because they believe this program component helps customers get into the habit of budgeting for and paying their utility bill each month.

*“I think budget billing does help bill payment behavior and extend people’s money. Of course there are people who are truly interested in managing their money better and the program has the best results for these people.” –LAA*

### 3. Process Evaluation. . .

*“There are many people who are using the program to maintain stable bills they can pay and are then paying their bills orderly. They depend on bill assistance to manage their electric bills.” –LAA*

*“The intent of the program is to educate customers to make payments so budget billing is necessary for them to have responsibility for this.” –Utility*

A very positive aspect to budget billing for many interviewees is that it forces customers to keep up with their bills each month so they are not then faced with a high utility bill which they cannot pay.

*“The program makes people know they have to pay their bill every month and keeps them aligned with their bill instead of having a large bill in the end they can’t handle.” –LAA*

The most commonly reported problem with budget billing is that the EUSP population faces severe resource constraints. Agencies, stakeholders, and state staff felt that even with EUSP assistance, many households are not be able to make their budget billing payment every month. As discussed later, this is in fact the case.

*“Budget billing is good to a degree if you can come up with an amount that’s reasonable for the income. I see households with billing plans where they have \$500 of monthly income and a \$200 monthly payment. This doesn’t make sense. We’ll see them right back because they can’t make it.” –LAA*

*“Budget billing has good objectives, but our customers are really stretched on where their dollars go, especially with rents so high here. Utility costs are a real hardship for them. What tends to happen is there has to be a selection of what they can pay that month. Sometimes they will pay to keep a roof over their head, but then have their utilities shut-off as a result. It’s a real catch-22.” –LAA*

LAAs overwhelmingly agreed that budget billing was a barrier to participation when the program first began. Budget billing is still perceived as a barrier to participation at some agencies, while other agencies feel they have successfully overcome this barrier.

*“Customers are not crazy about budget billing and we had a hard time getting people to sign up for it, especially the elderly.” –LAA*

*“People want the benefit, but not budget billing. We explain to them that this is not a give away, that they have to take responsibility for their bills. Very few people actually end up not wanting to stay on budget billing. EUSP has come to the point people are learning how to pay their bill.” –LAA*

The staff of one of the larger LAAs reports that as many as 30 percent of their clients question budget billing. However, LAAs report that few people actually walk away from EUSP because of budget billing. There is near universal agreement among the LAAs that taking time to explain budget billing to clients new to the program is the key to acceptance. Unfortunately because of the volume of applications, there is little opportunity to do this according to LAAs.

A state staff member reported that LAAs do not always understand budget billing or may oppose it in theory. This can also lead to it being a participation barrier. For example, this

3. Process Evaluation. . .

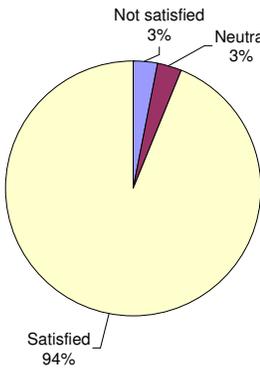
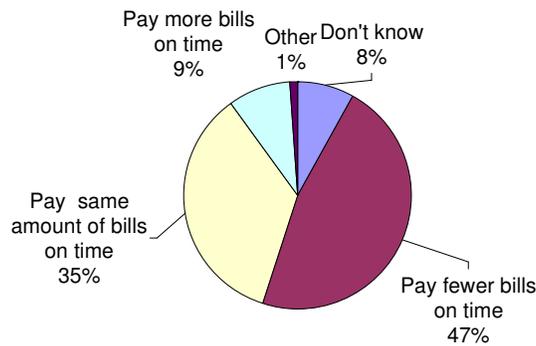
state staff person reported hearing LAA staff at application fairs saying to customers, “you don’t want to sign up for EUSP because it puts you on budget billing.”

Finally, LAAs reported that customers are confused by utility bills that include budget billing amounts. Utilities are working to educate customers on this matter. Many customers do not understand how to find the EUSP credit on their bill or the amount they need to pay. As a result, they may not pay their bill. LAAs reported that they often do not know about these problems until it is too late to intervene. Utilities report that they educate customers about how to read their bills and believe they have made significant progress in customers’ understanding of their bills.

*“Their bills are confusing to me. I have a hard time understanding them as well.” –LAA*

The customer survey indicates that budget billing is not a negative aspect of the program. Almost all (94%) of participants said they were satisfied with the requirement for a budget billing plan (Figure 3.3).

In addition, participants feel that the program has helped improve their bill payment behavior. Half (47%) of new participants said they would have paid fewer bills on time without the program (Figure 3.4). As will be discussed in detail in the impact evaluation section, there is evidence that the program’s budget billing requirement does help improve customer bill payment behavior over time.

<p align="center"><b>Figure 3.3</b>  <b>Customer Satisfaction with Requirement to Participate in a Budget Billing Plan (N=387)</b></p>	<p align="center"><b>Figure 3.4</b>  <b>Customer-Reported Bill Payment Behavior Without the Program (N=387)</b></p>
 <p>A pie chart illustrating customer satisfaction with the requirement to participate in a budget billing plan. The chart is divided into three segments: a large yellow segment representing 'Satisfied' at 94%, a small blue segment representing 'Not satisfied' at 3%, and a small red segment representing 'Neutral' at 3%.</p>	 <p>A pie chart illustrating customer-reported bill payment behavior without the program. The chart is divided into five segments: a large maroon segment representing 'Pay fewer bills on time' at 47%, a yellow segment representing 'Pay same amount of bills on time' at 35%, a cyan segment representing 'Pay more bills on time' at 9%, a blue segment representing 'Don't know' at 8%, and a small purple segment representing 'Other' at 1%.</p>
<p>Source: EUSP new 2005 participant survey, January – February 2006, Question P05e_7</p>	<p>Source: EUSP new 2005 participant survey, January – February 2006, Question B5</p>

### 3. Process Evaluation. . .

#### 3.1.4 Coordination with MEAP and Other Assistance Programs

##### a. COORDINATION WITH MEAP

EUSP is fairly well-coordinated with the pre-existing Maryland Energy Assistance Program (MEAP), although LAAs and utilities advocate greater consolidation. The program also coordinates with other assistance programs to a lesser extent.

Applicants apply for MEAP, EUSP, and USPP at the same time using a consolidated application form. In prior years, applicants had to check a box for each program. OHEP changed the application in 2005 so that participants are enrolled in all three programs unless they specifically request not to be. By making this change, OHEP expects to increase coordination between MEAP, EUSP, and USPP.

Those we interviewed believe MEAP/EUSP coordination is working well for both customers and LAAs. Given that the programs use the same application and similar guidelines, the coordination is practical from an administrative and customer perspective.

*“They have the same applications, same guidelines. When they wrote EUSP they really tried to bring it in-line with MEAP so it was as close as possible to avoid customer confusion. Most people get it now.” –LAA*

*“It is easy for the customer because they can do it all at one time.” –LAA*

*“EUSP is a very good complement to MEAP. MEAP is to reduce the cost of heating, but EUSP deals more comprehensively with energy needs.” –LAA*

Utilities also said the program is easier for them to administer because of its coordination with USPP.

*“This has been a fairly simple program to administer because it mirrors USPP.” –Utility*

At the same time, LAAs reported that they are often questioned why their MEAP and EUSP numbers differ. LAAs said while they do promote EUSP, there are some differences in eligibility criteria, such as having to have an electric account in the applicant’s name, and that explains why people do not participate in both.

*“It’s not that we’re not trying to push the program, there’s more to it than that. Sometimes they’re eligible for MEAP but not EUSP.” –LAA*

There are some aspects of coordination between EUSP and MEAP that are difficult for administrators, LAA personnel, and clients. EUSP operates on the state’s fiscal year (July 1–June 30) and MEAP operates on the Federal fiscal year (October 1–September 30). EUSP clients who apply for MEAP before the Federal fiscal year begins and the funds are in hand can receive EUSP benefits but must wait until the Federal funds are in hand to receive MEAP benefits. LAA personnel say that it is sometimes difficult to explain this to clients.

LAAs report that the different MEAP and EUSP program cycles increase their administrative burden, primarily because they have to certify the programs at separate times. This means that applications have to be revisited in the data system, which is a time consuming process.

### 3. Process Evaluation. . .

Potentially, the LAAs could mass certify MEAP participants who were previously certified for EUSP when the program begins after October 1.

*“MEAP and EUSP coordinate well because there are the same income guidelines and application. But MEAP is for heating and it’s not available at the same time. It’s a big pain for us because we have to re-certify all the applications for heating once MEAP is available. It’s double the work.”—LAA*

The different timeframe tends to confuse customers who apply for benefits prior to October 1. EUSP grants can be awarded as early as July 1, whereas MEAP grants cannot be awarded until October 1. Customers often do not understand why they can’t find out what their MEAP grant is at that same time as the EUSP grant. One LAA said they try to overcome this confusion by explaining to customers that EUSP is *“to help them turn their lights on,”* and MEAP is *“help them stay warm”* and will be there when heating season begins.

Another source of customer confusion is that utilities change the budget bill amount for customers with electric heat when they receive their MEAP grant. LAAs report that this causes customer confusion because customers think they are supposed to be paying the same amount each month for a year and then they see the amount change.

Utilities also would like to know the amount of EUSP/MEAP assistance at the same time so that they can best serve the customer and decrease their administrative burden. They mentioned that the adjustment to the budget bill amount is difficult both from a customer service and administrative perspective.

*“We’d very much like to see the MEAP/EUSP payments consolidated. We’d like to know what is the total package for this customer.”—Utility*

#### b. COORDINATION WITH OTHER ASSISTANCE PROGRAMS

EUSP coordination with other social service programs is important, especially in the event clients have needs outside the program’s capabilities. To impress the importance of this issue, OHEP requires that, “each LAA must maintain a list of alternative energy assistance providers for referral purposes if the OHEP grants are not adequate to meet the need of the applicant<sup>25</sup>.”

LAA practices appear to be meeting this OHEP requirement. Many LAAs report that MEAP/EUSP is their program with the largest clientele and they refer EUSP participants to other programs where applicable. For other LAAs, cash assistance programs are their largest programs and are a good source for identifying customers in need of MEAP and EUSP. Many LAAs report that EUSP is the program of first resort. Clients are sent there first and then their eligibility for other programs is addressed.

MEAP and EUSP also receive referrals from fuel fund managers who report that they refer customers to MEAP and EUSP before they will assist them with fuel funds.

*“We piece together all of the programs including MEAP and EUSP to meet people’s needs. We won’t even see someone until they have gone to apply for MEAP and*

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<sup>25</sup> OHEP Operations Manual, November 1, 2004.

### 3. Process Evaluation. . .

*EUSP. We have to do lots of education about the programs. There are a lot of people who don't know about the energy assistance network. We then work with people to see how we can work with what's left over.” –Stakeholder (Fuel Fund)*

EUSP also coordinates with other programs in the event customers experience an emergency situation. Since EUSP is not an emergency program, LAAs refer clients that face an emergency situation to MEAP crisis assistance. When MEAP crisis assistance is not sufficient, some LAAs have local emergency funds they can use. LAAs also refer customers to other programs such as their local fuel fund and local charities and organizations that each LAA develops.

*“We have information on other programs so we are active in referrals and trying to get them on the right track.” –LAA*

Interviewees representing LAAs, utilities and stakeholders feel there is a breakdown in how the program is able to work with other state assistance programs. Several respondents expressed a desire to see a more integrated approach to assisting people through all the applicable state programs. They believe this will best assist in creating sustainable households. It was recognized, however, that this is something that would require coordination at the state-level in the Department of Human Resources (DHR) and is outside of OHEP’s direct control.

*“The state has to connect its various agencies to streamline the administrative procedures.” –Stakeholder*

Some of the interviewees also felt that there needs to be greater coordination with local agencies and that customers should be able to obtain all possible assistance in one stop. This would require that agencies defer some of their decision making to a single agency.

The customer surveys support these opinions. While new EUSP participants are fairly well-connected to other social programs, there is room for improvement. Over half of participants said they participated in Medical Assistance, but less than half received all other kinds of assistance (Table 3.4). However, to some extent, the other social programs may have different target populations and program requirements than EUSP.

**Table 3.4  
New 2005 Participant Participation in Other Social Programs**

<b>Type of Social Program</b>	<b>Percent of Participants Receiving Assistance (N=387)</b>
Medical Assistance	58%
Food Stamps	46%
Housing Assistance	22%
WIC	20%
Cash Assistance	10%

Source: EUSP new 2005 participant survey, January – February 2006, Question H3

### 3.1.5 Customer education and self-help strategies

EUSP has significant room to improve its capabilities to help households meet their energy bills on an on-going basis through self-help and education strategies. However, customer surveys indicate that when customers apply in-person, the program is doing a good job providing effective energy education to customers.

As shown in the EUSP logic model in the Introduction, EUSP policy favors self-help and education strategies but very little is actually taking place. What is being done is inconsistent and varies considerably across LAAs and even staff within LAAs. Interviews suggest this is due in large part because almost all LAAs serve the majority of their customers through mail applications and because LAAs are understaffed and do not have the necessary resources to provide customer education through the program.

The majority of new participants (64%) complete applications in-person at a local agency (discussed more under the EUSP administration section of this chapter). In contrast, LAAs report that the majority of repeat participants complete applications via the mail. The majority of new participants (66%) reported receiving information on how to reduce their energy use. Most participants (79%) said the energy education they received consisted of being given a brochure to read through that has energy conservation tips. Half (48%) said a staff member discussed energy use with them.

Only a fifth of new participants reported receiving budget or financial information through the program. The majority of these (85%) said that they were given a packet of information to read through. Over half (56%) of those receiving budget or financial education said that a representative discussed with them ways they could better manage their money.

<p align="center"><b>Figure 3.5</b> Percent of Participants Receiving Energy Ed (N=387)</p>	<p align="center"><b>Figure 3.6</b> Percent of Participants Receiving Financial Ed (N=387)</p>																
<table border="1"> <caption>Data for Figure 3.5</caption> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Received energy ed</td> <td>66%</td> </tr> <tr> <td>Did not receive energy ed</td> <td>28%</td> </tr> <tr> <td>Don't know</td> <td>6%</td> </tr> </tbody> </table>	Category	Percentage	Received energy ed	66%	Did not receive energy ed	28%	Don't know	6%	<table border="1"> <caption>Data for Figure 3.6</caption> <thead> <tr> <th>Category</th> <th>Percentage</th> </tr> </thead> <tbody> <tr> <td>Did not receive financial ed</td> <td>72%</td> </tr> <tr> <td>Received financial ed</td> <td>20%</td> </tr> <tr> <td>Don't know</td> <td>8%</td> </tr> </tbody> </table>	Category	Percentage	Did not receive financial ed	72%	Received financial ed	20%	Don't know	8%
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Did not receive financial ed	72%																
Received financial ed	20%																
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<p>Source: EUSP new 2005 participant survey, January – February 2006, Question OP2</p>	<p>Source: EUSP new 2005 participant survey, January – February 2006, Question OP3</p>																

There are several indicators that the education customers received was effective (Table 3.5). However, it is important to note up front, that customer self-reported opinions and behaviors about education may be bias because customers report what they believe is the 'socially desirable' response. And in fact Table 3.6 shows that participants do not differ

Participants were asked how useful the information was that they received on a 5-point scale (1=not at all useful, 5=very useful). The majority of participants said it was useful and the average (mean) usefulness was above a four. In addition, over half of those who received energy education said that they had made changes based on the information they received. The most reported change was turning off lights when not in use. Other types of reported changes included using energy efficient light bulbs, turning off and/or unplugging appliances when not in use, keeping curtains closed, sealing windows, weather-stripping, more moderate thermostat settings in winter and summer, water conservation, and changes in laundry practices.

**Table 3.5**  
**Indicators of Effectiveness of Education Received**

	Percent that found useful (4 or 5 on 5-point scale)	Average (mean) usefulness of info provided	Percent that made changes based on info received
Energy education (N=252)	80%	4.2	59%
Financial education (N=76)	82%	4.2	38%

Source: EUSP new 2005 participant survey, January – February 2006, Question OP2 and OP3 series

However, EUSP participants were no more likely than nonparticipants to report taking energy savings actions. All EUSP participants and nonparticipants were asked if they took certain energy saving actions. While a similar percentage of participants and nonparticipants reported taking most actions, significantly more nonparticipants reported lowering their water heater thermostat and washing laundry in cold water. This suggests areas for improved energy education through the program.

**Table 3.6**  
**Energy Efficient Actions Taken**

	Participants	Nonparticipants
Lowered heating system thermostat	82%	83%
Lowered water heater thermostat	38%	52%*
Washed laundry in cold water	56%	66%*
Used drapes or window coverings	79%	79%
Used air conditioning less or used fans more	63%	66%
Turned off appliances when not in use	96%	94%
Turned off lights when not in use	99%	97%

\*statistically significant at the 95% confidence level

Source: EUSP new 2005 participant survey and nonparticipant survey, January – February 2006, Question E1

Furthermore, respondents indicate a great deal of interest in receiving education – particularly energy education - through the program. Customers who did not receive information were asked on a 5-point scale how interested they would be in receiving education through the program (1=not at all interested, 5=very interested). The majority said they are interested in receiving energy education or financial education through the program (Table 3.7).

**Table 3.7  
Interest in Receiving Education through the Program**

	<b>Percent interested in receiving ed through program (4 or 5 on 5-point scale)</b>	<b>Average (mean) interest in receiving ed through program</b>
Energy education (N=124)	84%	4.4
Financial education (N=300)	66%	3.7

Source: EUSP new 2005 participant survey, January – February 2006, Question OP2 and OP3 series

According to a state staff person, EUSP was initially designed to be part of a greater DHR one-stop shopping initiative that would provide comprehensive education. When this approach did not go forward, the role of education in EUSP was not further addressed. The staff person said this was because it was deemed unfair for ratepayers to bear all of the social service education costs through EUSP when it should be shared among all social programs.

Providing customer education more consistently could address specific issues relating to EUSP and its goals. Specifically, customer education about budget billing and budgeting strategies would support the program goal of having clients make timely and consistent payments on their utility bills. Additionally, customer education about conservation strategies would speak to EUSP’s goal of increasing participant awareness of conservation measures resulting in lower and more affordable bills.

Many of those interviewed agree with the importance of offering some sort of customer education. One stakeholder believed that EUSP was most in need of improvement in the area of customer education, especially in regard to skills needed to maintain budget billing payments. Utilities agreed with this perspective.

*“The biggest problem with EUSP right now is that people don’t understand budget billing or how to read their bills and the staff don’t spend time trying to explain these to people.” –Stakeholder*

*“There is customer confusion about how it shows up on their bill. Customers are looking for the lump sum payment. They don’t have a clear understanding of how the benefits are applied.” –Utility*

Many LAAs agreed that their customers do not adequately understand budget billing and they wish they could do more to explain it clearly to them. Some LAAs reported trying to educate customers about reading their bills and understand budget billing, but this is often reactive when a customer calls to complain instead of proactive education.

LAAs also raised the need for budget counseling, as well as the need for energy conservation education. Budget counseling would focus on working with households to understand their resources and how to manage them to maintain their electric bills with EUSP assistance. Energy conservation education would help customers understand how they use energy and ways they can reduce their energy consumption.

### 3. Process Evaluation. . .

Several LAAs commented that they were bothered by their lack of capability to better educate their customers and provide them with the tools they need to progress toward energy self-sufficiency. These LAAs said they would like the program to explore options to provide additional funding for more intensive client education or case management.

*“We don’t have the capability to talk about energy usage and conservation. We aren’t offering any education or counseling and this is a piece of the puzzle that is missing.” – LAA*

*“Case management should be part of this program, but there’s no money there for this. There should be energy management classes to train individuals.” –LAA*

## 3.2 EUSP OUTREACH AND ENROLLMENT

This section of the report summarizes key process evaluation findings that relate specifically to EUSP outreach and enrollment practices. Specifically, this section discusses:

1. EUSP’s current outreach strategies.
2. Mail versus in-person application processes.
3. Customer experience with the application process

### 3.2.1 EUSP’s current outreach strategies

The increasing participation numbers indicate that program outreach has been effective. At the same time, continued outreach efforts are needed as a third of new participants reported on the customer survey that they had not previously applied to EUSP because they were not aware of the program.

LAAs develop and submit outreach plans to OHEP annually. LAAs keep monthly outreach logs that detail outreach activities. OHEP also develops a statewide outreach plan to assist LAAs in their local outreach efforts. OHEP efforts include print materials, press releases, and a toll-free automated number.

Some LAAs reported that they would like greater centralized outreach support from OHEP. These LAAs feel that while they are good at more personal outreach, but they need assistance in more professional advertising. For example, one LAA suggested that OHEP organize statewide Public Service Announcements about the program as these can be “*slicker*” than what they can do at the local level. However, one utility raised the concern that while more consistent, professional marketing of the program is needed, they do not think that OHEP itself is equipped to do this..

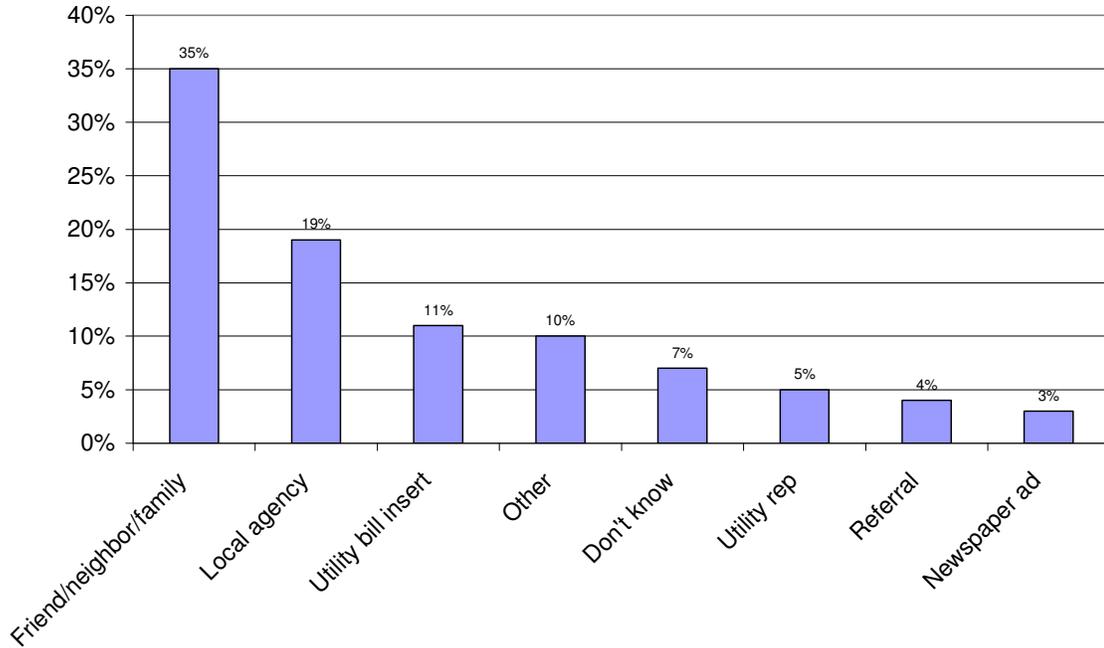
*“They [OHEP] doesn’t have a department for customer communications to make sure the customer can understand the message. I’m not sure they are effectively communicating to the customer.” –Utility*

Another utility said they believe the different LAAs outreach campaigns resulted in an inequitable distribution of benefits across the state and that an overarching campaign led by OHEP as well as more specific guidance for LAAs was needed to address this concern.

*“There is no outreach guidance from the top.” –Utility*

LAA reported that the majority of their applicants learn of the program through word-of-mouth. This is confirmed through the customer surveys and is consistent with what we know about other types of social programs. New participants reported that the main way they learned of the program was through word-of-mouth (Figure 3.7). Various forms of word of mouth are family and friends, referrals at local service agencies, utility referrals, and referrals in general. The utility bill insert and newspaper ads that are broadcast methods were mentioned by just 14 percent of the participants. Newspaper ads appear not be effective.

**Figure 3.7**  
**How Participants Learned of EUSP (N=387)**



Source: EUSP new 2005 participant survey, January – February 2006, Question P05a

LAA believe the best way to further word-of-mouth communication is through visiting outreach sites such as senior citizen centers, apartment buildings, and public housing as well as working closely with other social programs. Some LAA believe it is most effective to provide potential applicants with the contact information, rather than taking an application to the site itself. They feel some people are resistant to completing an application in a public setting.

*“We don’t take applications out because of pride. But we give them info and who to call and go from there.” –LAA*

In other settings, such as those where there is a language barrier, LAA report it is important to do applications on-site so that customers have the necessary support (such as an interpreter) to complete the application.

Urban counties report holding application fairs and expos. The LAA holding these events said while these are high profile events for the program, they question whether these events are truly cost-effective. They think the dollars spent in promoting and running the fairs and

### 3. Process Evaluation. . .

expos are a very expensive way to get more applications and believe that a substantial percentage of attendees are now repeat participants. Less than one percent of new EUSP participants reported learning of the program through an Application Fair or Expo suggesting that these events may have limited usefulness as an outreach tool.

The fairs and expos generate enrollment problems for the sponsoring LAAs. LAAs report that applications collected at fairs and expos have a high error rate as people do not bring the correct information with them. In addition, the fairs create a huge backlog in applications that must be dealt with and may interrupt or slow the processing of regular applications and applications of “walk-ins” who have emergencies. The LAAs deal with this by screening the applications received at the fairs and expos with the most pressing needs and deal with them first. Rural LAAs said that fairs and expos would not work for their counties.

Other types of local outreach efforts that LAAs have used with mixed success are direct mailings, printed materials, media, speaking engagements, visits to housing developments, and the use of local service agencies and churches. In some instances, persons in local organizations are trained to take applications. In others, they act as referring agencies.

Several LAAs made the point that there is pressure for them to do more outreach to increase their number of applicants, but they feel a disinclined to do this because they are already overworked, have insufficient administrative funds, and have difficulty keeping up with the number of applications. Some of this burden is a direct result of an inefficient data system.

*“We are not able to do much. We only have two employees and it takes them full time to run the office. We used to have a ½ time outreach person but we had to let them go because of lack of funds.” –LAA*

Utilities also reported doing a variety of outreach activities for the program including utility bill inserts, Call Center referrals, and funding special events. Bill inserts appear to be somewhat effective. Utilities reported that they believe what they do to promote the program is considerable and they think the program should pick-up more of the outreach activities.

One utility raised the concern that there are low-income households that need, but do not know about the program. These households manage to keep up with their utility bills by making sacrifices. They believe this because the majority of new applicants come into the program through family utility and other crisis assistance referrals (e.g., fuel fund, charities, and other social programs). Evaluators believe that a broad-based program campaign would be most beneficial for this segment. Such a campaign needs to be very targeted, reaching out through the most effective channels with effective messages. It is important to remember that the goal is not one of reaching a large general population in the hopes of increasing market share by a few percent but one of reaching customers with very particular characteristics who may be somewhat isolated socially and widely dispersed.

#### **3.2.2 Mail versus in-person application processes**

The majority of LAAs instituted a mail application process for their repeat participants in the hope of decreasing administrative burdens. This process has its merits, as well as its limitations in comparison to in-person applications.

### 3. Process Evaluation. . .

All but three LAAs process the majority of their applications by mail.<sup>26</sup> These LAAs report that it is essential they do the majority of applications through the mail as they do not have the staff or resources to see the majority of applicants in person. In-person applications are generally reserved for new applicants, those with termination notices, those needing emergency assistance, or those who apply at outreach sites. One of the larger LAAs reports that a high percentage of those receiving mail applications actually go to one of their locations to complete the application. They cited a variety of reasons for this, including distrust of mail procedures and language or literacy barriers.

Applications are usually mailed starting around July 1. One problem associated with the bulk mailing of applications is that LAAs can get extremely backlogged at the beginning of the program year and are not able to process applications in a timely manner. The OHEP Operations Manual states, *“In general, it is recommended that applications be entered into the data system within 2–3 days of receipt of the application.”* At the beginning of the program year, LAAs report their backlog is often several weeks, much beyond the recommended 2–3 days. LAAs said this backlog is exacerbated by the OHEP data system, which can be very time-consuming and burdensome for LAA staff to enter application information (discussed later in this section).

Several of the LAAs said they get around their mail application backlog by mailing applications to previous year applicants on a rolling basis. Other LAAs reported that while they have tried this, they abandoned it because it resulted in too many concerned customer calls from previous year applicants who knew their neighbor had received their application and wanted to know why they had not.

Two smaller LAAs request that all EUSP applicants who are able apply in-person. They decided to process the majority of applications in-person for several reasons. First, they do not believe that mail applications significantly reduce their workload because they have to follow up with so many mail application customers because of incomplete information. They said by processing applications in-person, they can make sure they have all of the information they need. Second, these LAAs want the opportunity to provide more education to customers. Both LAAs who see the majority of their applicants in person believe this is having a positive effect on their customers’ ability to maintain utility payments. They also believe in-person visits are more effective at helping new clientele better understand the program.

*“We tried to do mail outs but we found we were not able to do the counseling we wanted to. People were not receptive to EUSP because they didn’t know what it was or understand it.” –LAA*

*“Our EUSP participation has really grown because of the one-on-one interviews. We’ve also seen a decrease in our terminations.” –LAA*

Both LAAs who encourage in-person applications acknowledged that it does increase their staffing constraints and they have to work hard to efficiently, *“move people through the system.”*

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<sup>26</sup> One of these LAAs is Baltimore City, who processes the largest number of EUSP applications, and reports only about a third of their applications are mail.

While none of the interviewed utilities or stakeholders specifically said that they wanted LAAs to conduct fewer applications via mail, there were many proponents of LAAs doing more education about budget billing than currently. As noted above, in-person applications result in more education being delivered to customers.

### 3.2.3 Customer experience with the application process

New participant satisfaction with the program application process was extremely high (Table 3.8). Customers were asked on a 5-point scale how satisfied they were with various aspects of the program application process (1=not at all satisfied, 5=very satisfied). The majority of new participants were satisfied with all aspects of the application process. Customers were most satisfied with the ease of filling out the application and were least satisfied with the time it took them to receive notification of their assistance.

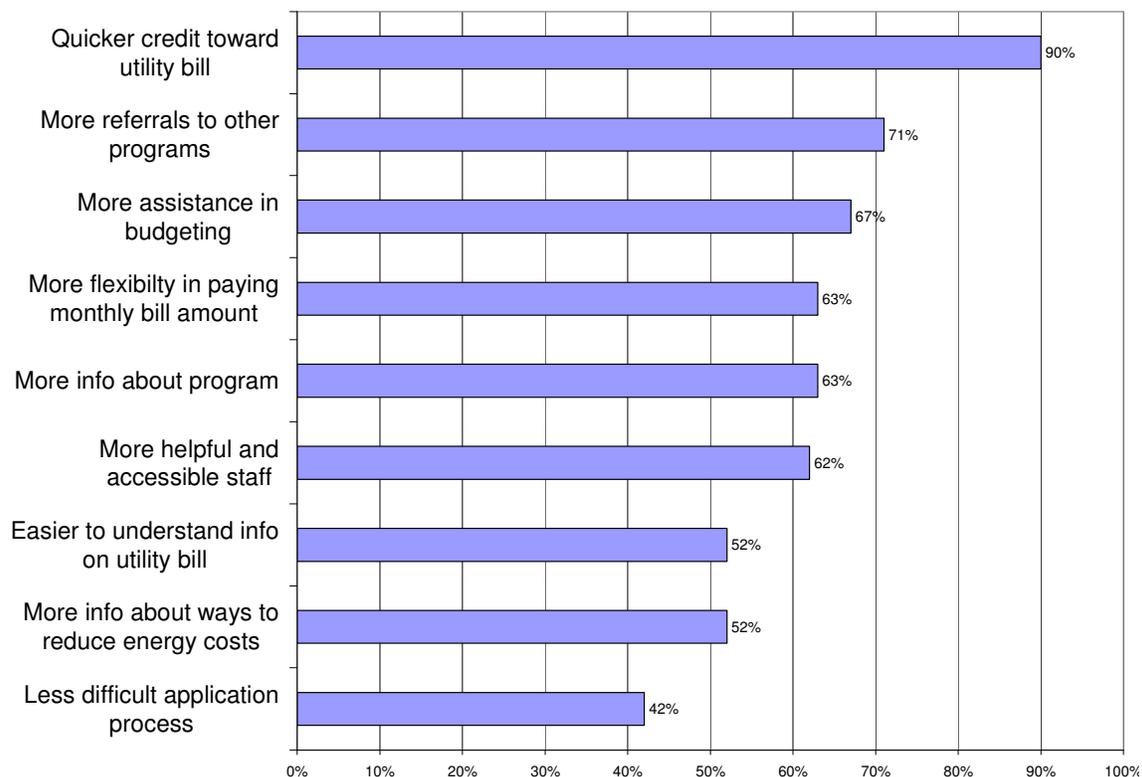
**Table 3.8**  
**Customer Satisfaction with Application Process (N=387)**

	Percent satisfied (4 or 5 on 5-point scale)	Average (mean) satisfaction
Ease of filling out the application	96%	4.7
Helpfulness of staff in completing application	91%	4.6
Information received explaining the program	91%	4.5
The way average monthly payment is shown on electric bill	89%	4.4
Time it took to notify that you received assistance	85%	4.3
<b>The program overall</b>	<b>93%</b>	<b>4.7</b>

Source: EUSP new 2005 participant survey, January – February 2006, Question P05e

If customers were not satisfied with any aspect of the application process (3 or less on the 5-point scale), they were asked what could have increased their satisfaction. Almost all of the dissatisfied participants (90%) said that a quicker credit toward their utility bill would increase their satisfaction.

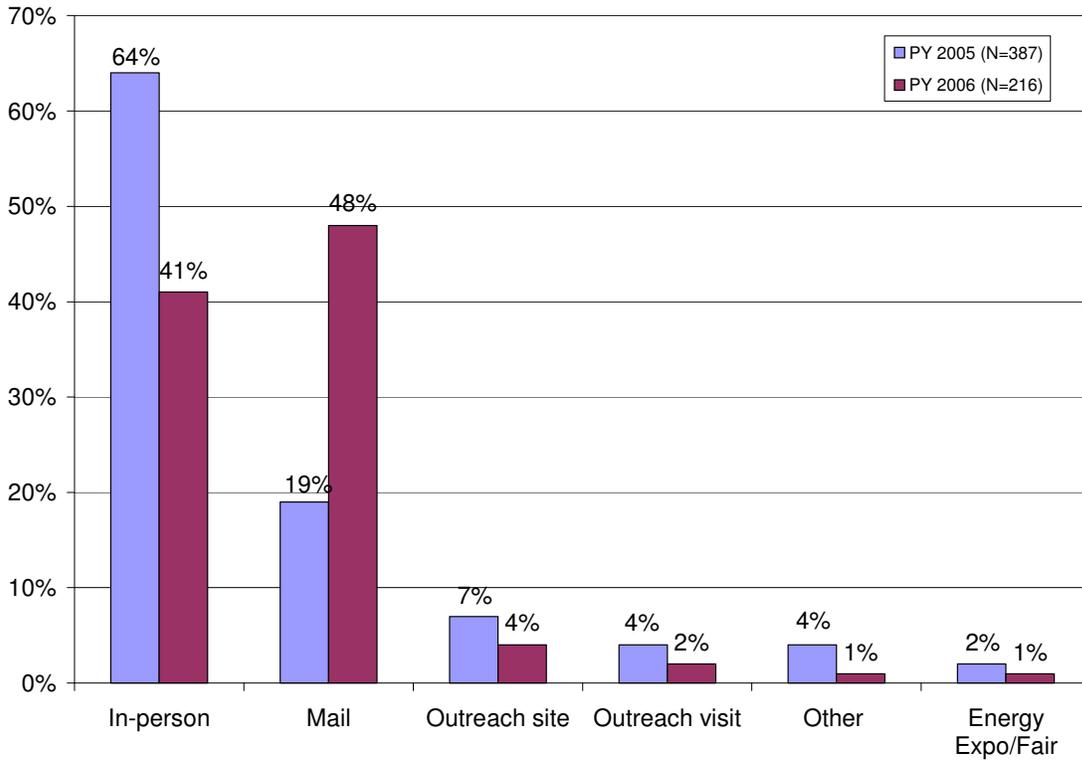
**Figure 3.9**  
**Types of Program Changes that Would Have Increased Satisfaction if Participant Not Satisfied**  
**(N=120)**



Source: EUSP new 2005 participant survey, January – February 2006, Question P05f

While customer survey results show that new participants were quite satisfied with the program application process, this mainly represents applications completed in-person at LAAs. The majority of new participants said they filled out an application in-person at a local agency (Figure 3.8) Program Year 2005. In contrast, the majority of EUSP participants complete mail applications as discussed in the previous section. However of those participants new to the program in 2005 who re-applied to the program in 2006, more submitted their application via mail than in-person at an agency (48% versus 41%).

**Figure 3.8**  
**How New EUSP Participants Applied to the Program in Program Year 2005 and Program Year 2006**



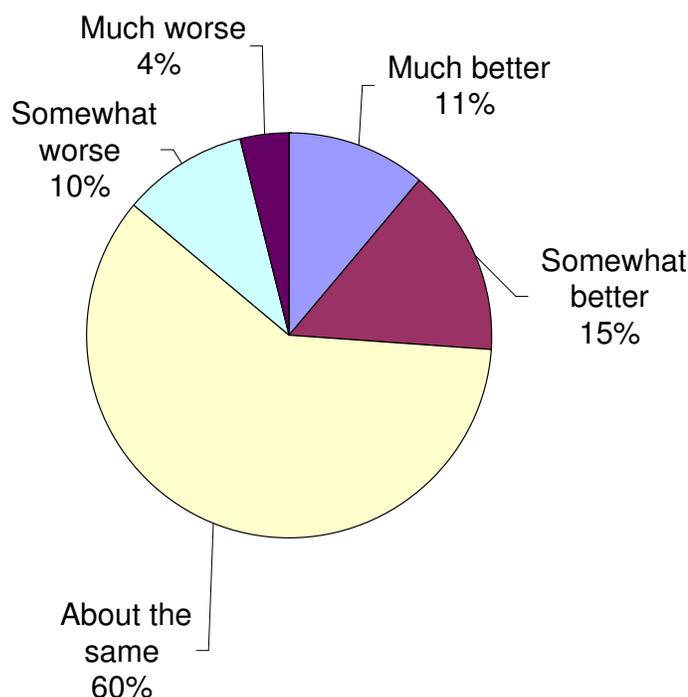
Source: EUSP new 2005 participant survey, January – February 2006, Question P05d

Customers who had re-applied to the program in 2006 were asked how their experience with the program compared to 2005 (Figure 3-10). While over half of participants said their experience was about the same, a quarter (26%) said their 2006 experience was better, and fifteen percent said their 2006 experience was worse.

Figure 3.10

**Was your experience with the program in 2006 year much better, somewhat better, about the same, somewhat worse or much worse than the first year you participated? (N=216)**

Source: EUSP new 2005 participant survey, January – February 2006, Question P06c



### 3.3 EUSP ADMINISTRATION

This section of the report summarizes key process evaluation findings that relate to EUSP's administration. Specifically, this section discusses:

1. The relationship between LAAs and utilities.
2. Communication and documentation passed from OHEP to LAAs and utilities.
3. EUSP local administration funding.
4. EUSP data information system issues and requirements.
5. Arrearage forgiveness component of EUSP.

#### 3.3.1 The Relationship Between LAAs and Utilities

Overall, utilities and LAAs report having established a good working relationships with each other, although areas for improvement were identified.

LAAs coordinate with utilities to get required customer consumption information to process applications. Utilities differ in how they provide consumption information, which affects the

### 3. Process Evaluation. . .

speed with which LAAs can process applications. For example, two Maryland utilities have an interactive website where LAAs can access consumption information directly. LAAs report that the interactive websites are a positive development that have greatly assisted them in more efficiently processing their applications.

*“They’ve done tons to be cooperative and helpful. Their interactive website is great.” – LAA*

*“We have very minimal issues in working with the agencies. We have a co-worker atmosphere with local agencies.” –Utility*

Another utility provides their LAAs with the consumption information for all previous year’s applicants. The LAAs report that this also greatly assists them in more efficiently processing information.

LAAs report that the response time for other utilities to provide consumption data can often be slow, but they recognize that utility staff are trying to be more responsive. LAAs report that their most common difficulty is interacting with utility Call Center staff, who they feel are often not properly trained and do not know about the program. One LAA staff member said she frequently just keeps calling the Call Center until she gets a representative that knows about EUSP. The utility representatives insist that staff are trained and that they are given refresher training as needed. The issue appears to be one of different understandings about how the program works and utilities have different procedures and rules for dealing with customers in arrears.

LAAs who work with municipal utilities said that this is often a problem for them because they believe municipal utilities function under different rules and LAAs aren’t kept abreast of what these rules are. These rules, and how LAAs believe administration of EUSP is affected by these rules, will be further explored in subsequent evaluation efforts.

*“They [municipal utilities] have waivers, but we don’t know what they are in order to negotiate on behalf of our clients.” –LAA*

The most frequently reported problem with utilities is the difficulty customers have in understanding their utility bill, which can often lead to a series of serial interactions between LAA staff, the customer, and the utility. One LAA said she tried to proactively address this by having a day where the utility representative comes to their office to explain bills to customers. She informs all of her customers about this day and invites them to come to the office to meet with their utility representative. She believes this is an effective way to educate customers about reading and understanding their utility bill.

LAAs also reported that they would like to receive customer status updates from the utilities. Currently, once the customer is accepted into the program, LAAs do not receive further communication about the customer’s payment habits. They also do not know if the customer moves and whether the benefits go with the customer. They expressed a need for a “feedback loop” in the system in order to track their customers.

*“Once we process the application, we never hear back from the utility so we don’t know how our customer is doing on budget billing. We don’t even know if the client has been kicked off budget billing or not.” –LAA*

### 3. Process Evaluation. . .

The lack of continued communication is a concern for some LAAs because they believe they need to continue working together to help the customer meet their energy bills on an on-going basis.

*“We [LAAs and utilities] need to be working together to teach clients to be responsible.”  
–LAA*

Along these lines, one LAA said their utility is not willing to work with them to establish a payment plan for the customer that they can afford and maintain. This is a case where the customer continued to have problems even with EUSP assistance.

Four LAAs said they were concerned that their utilities are not administering the program correctly. Three LAAs were under the impression that some utilities do not terminate customers from budget billing if they are not keeping up their payments but wait until all of the EUSP credit is used up at which point the customers have an arrearage.

*“My understanding of how the program works is customers should be kicked off if they don’t make a budget bill payment, but this is not happening.” –LAA*

Issues also arise when those who are not meeting their payment obligation attempt to negotiate a payment agreement with the utilities. LAAs and utilities agree on whether a payment agreement can be negotiated. Situations were reported where agreements would facilitate maintaining a customer’s service. Another LAA said they believe one of their utilities is not implementing the program correctly because one of the utilities is using EUSP bill assistance funds for past amounts owed. This LAA believes that EUSP bill assistance funds are only to be used for future budget bill payments.

#### **3.3.2 Communication and documentation passed down from OHEP to LAAs and utilities**

LAAs and utilities report that OHEP staff are helpful and that communication is at an all-time high. They said that at the beginning of the program, there was turnover in the state OHEP office, which weakened the program’s leadership and communication. Overall, utilities and LAAs believe state OHEP staff are working very hard to support the program and be responsive to their needs.

*“OHEP staff are responsive and supportive.” –LAA*

*“The new director has been instrumental in making changes for the better.” –Utility*

Most particularly, LAAs mentioned they appreciate the newly implemented monthly teleconferences that the state OHEP director and staff hold with them.

*“The monthly teleconferences are fantastic. We are all able to get on the same page and not travel. The communication is better now than it ever has been.” –LAA*

LAAs, utilities, and stakeholders all believe that more consistent, updated written information about program procedures is needed from OHEP. Some of the stakeholder groups are particularly concerned about the lack of clear written policy guidelines and the inconsistencies with which the program is implemented. LAAs felt that they needed the documentation to ensure they are implementing the program correctly and consistently across the state. OHEP produced an updated Operations Manual in November 2004, but many LAAs would like the

### 3. Process Evaluation. . .

manual to be updated annually and be accompanied by training. OHEP staff agreed with the need for annual update training and began delivering these in program year 2005.

*“We need to have things in writing that we can hang our hats on.” –LAA*

*“We receive very little information about the program and program changes from OHEP or the agencies. I didn’t even know about arrearage retirement opening up again. If we know what they’re communicating then we’re in a better position to educate the customer.” –Utility*

Several LAAs also said that they do not always feel fully involved in OHEP’s and the PSC’s policy decisions and think LAA input is critical before program policy changes are made. Utilities also voiced this opinion.

Many rural LAAs reported that while they appreciate OHEP’s support, they feel that OHEP provides more support to urban counties. These LAAs mentioned that it would be helpful to have meetings focusing on rural issues because they feel urban issues dominate the agenda. It was also mentioned that program meetings are held in the City of Baltimore or Baltimore County. They would like to see meetings held throughout the state so that it can be easier for them to attend meetings on a periodic basis. Two of the utilities mentioned these as areas of concern as well. OHEP staff reported they were aware of this latter issue and were responding by planning meetings throughout the state beginning in January of 2005.

*“It would be great to go to a meeting with a group of counties with similar populations and issues so we can talk about those issues.” –LAA*

LAAs and utilities also reported that, while they know OHEP staff try to be as responsive as they can, they think that OHEP is understaffed and therefore not adequately equipped to provide the type of support needed for this program.

*“They are willing to be responsive, but they are so overwhelmed and have limited resources.” –Utility*

#### 3.3.3 EUSP local administration funding

LAAs report that EUSP local administration funding is not sufficient and their biggest administrative need is more staff. LAAs report that the true costs of program administration are subsidized by other programs or entities that may provide office space, staffing resources, outreach resources, receptionist help, and application in-take. Several of the programs utilize seniors who are employed through a work program for seniors. At least one of the programs uses unpaid student interns.

*“Our policy is we won’t take a program if it doesn’t pay for itself. This one doesn’t, but it’s important so we do it and figure out how to subsidize its administrative costs through other programs and overhead.” –LAA*

By far the largest identified need for LAAs was more staff to take and process applications. Several LAAs pointed out that while their application numbers have increased exponentially, they have had no increase in administrative funding to keep up.

### 3. Process Evaluation. . .

*“In the past we’ve done okay, but we’re feeling the pinch now. Our caseload has increased, applications are up so we’re busier. We’re operating, but not as efficiently.”*  
–LAA

*“We could use more staff. It is hard for us.”* –LAA

*“We really need a file worker, but we are not able to get one because of the budget.”* –LAA

*“We are running and working over time. Our plates are so full.”* –LAA

Some utilities also expressed concern that LAAs may not have sufficient resources to do their jobs efficiently. One utility and LAA reported that they had worked together to help alleviate the LAA’s constraints by the utility paying for a seasonal worker to process applications.

*“Does OHEP check to see if the agencies have adequate staffing for these programs?”*  
–Utility

Finally, there are compensation issues with LAAs that relate to the Department of Social Services (DSS) and between DSS and other agencies. Counties set salaries for DSS, not OHEP. Some DSS staff, because of their location and the cost of living in the area, tend to have higher salaries, which they report exacerbates the shortage of funds because allocations are based on a fixed rate per application. As a result, LAAs with higher salaried personnel are unable to allocate as many personnel. OHEP staff do what they can to provide additional funds or temporary assistance to ameliorate these problems. These differentials have not gone unnoticed by the local agencies and some hard feelings about the salary differentials and the allocations were reported between personnel in different agencies.

#### **3.3.4 EUSP data information system issues and requirements**

While the current OHEP EUSP information system enables the processing of the applications, it has a number of shortcomings. These shortcomings, if eliminated would significantly improve the efficiency of operations and free significant amounts of staff time.

The OHEP information system was created in a very short timeframe with fewer resources than were needed. EUSP legislation was passed in May of 1999. The administrative requirements and components for EUSP were not resolved until December of 1999. The OHEP data system was mandated to be on line by July 2000. Thus, there was only a six-month window in which to bring the new data system on line.

In addition, the contractor that implemented the system had personnel with culture, language, and availability issues that created problems with understanding system design needs and with implementing the system. The system was designed in a rapid prototyping mode without adequate analysis and documentation of concept, system, and functional requirements. While many of the more serious early issues have been resolved or mitigated, the system still has significant performance issues.

### 3. Process Evaluation. . .

Everyone that we interviewed during the first year of the evaluation agreed that there were problems with the system. We either observed or had described to us a number of problems. Some of the key problems are:

- Data entry screens are not laid out for efficient entry.
- This system is generally slow, especially with respect to locating and retrieving historical records.
- Applications for the three programs have to be certified separately rather than on one screen.
- The system does not support many of the administrative functions that the larger LAAs deem to be critical to managing their operations such as application tracking or workload analysis.
- The reporting function is weak and it is difficult or impossible for people to generate useful reports.
- There are no manuals or training for the system. Training on the use of the system is done on the job.
- Many of the LAAs have developed work-arounds to problems with the system. Unfortunately, there have not been opportunities to share these work-arounds between the LAAs.
- The hardware at many of the LAAs needs upgrading. This was being addressed as we completed our interviews and the new computers with Windows XP software have now been installed at all LAAs.
- The system has failed on numerous occasions and at critical times. Some of the more recent occurrences of these problems have resulted from viruses.
- While there is a contract for server maintenance, there is no hardware back-up for the server on which the DBMS is mounted or the router that connects that server to the web servers.
- Although it is not in their job descriptions, LAA staff obtain IT support from local IT personnel.
- Network connections need to be modernized. Two LAAs now have virtual private network (VPN) connections but some LAAs are still being served with ISDN.

While the LAAs are quite aware of the problems, they also recognize and appreciate the continual improvements OHEP makes to the system and are unbelievably patient and tolerant of the difficulties.

*“It’s been through tough times, but they’re always working to improve it.” –LAA*

While evaluators gathered data for this study, the OHEP staff was in the process of distributing new client hardware to the LAAs. This was a slow process because OHEP was unable to obtain a contract or support for installing the hardware. As a result, OHEP staff had to initialize the systems and deliver them to the LAAs. This activity had to fit into the already busy schedules of the staff who were not trained to provide this kind of support.

### 3. Process Evaluation. . .

Evaluators also observed that OHEP needs staff to help manage the system. The IT department that is supposed to support the OHEP system is also understaffed and, as a result, OHEP staff often found themselves attending to the day to day problems of managing and running an information system. OHEP would like to have technician who could service and maintain equipment in the field.

The Gartner Group, acting outside these evaluation activities, was engaged by OHEP to complete a study of the system. The key findings from that study were that:

- The current servers are more than adequate to support the loads on the system.
- The software was written so that a number of the processing tasks are distributed to the clients rather than being completed on the server that requires the exchange of a substantial amount of data and significantly slows the system.
- The software needs to be rewritten to take advantage of the ORACLE DBMS and the power of the existing servers.
- There needs to be a functional analysis of the system requirements.
- And perhaps the most important finding, the productivity of users could be increased by 50 percent by upgrading the system.

The observations of the evaluation team support the Gartner Group's finding that the existing servers are adequate to handle the loads. Improvement to the software system could result in significant improvements in productivity, although evaluators' expectations for improvement are more modest than those of the Gartner group.

Since those interviews, OHEP has moved forward. Microsoft.net has been installed. The web servers, as opposed to the data servers, have been replaced and VPN capability has been added. However, the underlying system has not been improved. OHEP is in the process of awarding a new data systems contract. Once that is in place, OHEP will begin to address some of the basic issues.

One key evaluation finding is that there is a substantial under investment of capital in the information system that needs to be remedied. Making that capital investment will release significant human resources that can then be used to address other program needs.

A second finding is that there is a need for a full time staff member to manage the day-to-day operations of the system and to support the longer-term development of the system. There is need for a person to do trouble shooting for LAAs.

#### **3.3.5 Arrearage forgiveness component of EUSP**

In the first year of the evaluation, arrearage forgiveness was the program component most reported in need of improvement by LAAs, utilities and stakeholders. OHEP has revised the arrearage forgiveness distribution in an attempt to address concerns raised by interviewees.

LAAs, utilities and stakeholders all said they believe that arrearage forgiveness is an important part of the program.

### 3. Process Evaluation. . .

*“It’s been great being able to have some people come out with a clean slate and being able to explain to them if they keep making their payments they won’t be in the hole again.” –LAA*

The customer surveys support the need for arrearage forgiveness. Over a third (38%) of new participants reported that they had an arrearage before they participated in EUSP. Per customer surveys, of those with an arrearage, the amount averaged \$496.

Problems identified in Program Year 2005 include:

1. *Arrearage benefits distribution.* LAAs, utilities, and stakeholders overwhelmingly agreed that the first come, first serve distribution of benefits used through PY 2004 did not result in an equitable distribution of arrearage benefits.

*“I would like to divide it up as evenly as possibly between the counties instead of saying here’s the pot—quick, grab it. We would like to do it at our own pace.”*

OHEP held a special meeting with LAAs in 2005 to brainstorm different ways to distribute the arrearage benefits more equitably. In PY 2006, each local agency has been given their own pot of money to allocate at their discretion.

2. *Customer communication.* LAAs, utilities and stakeholders all reported that there are substantial difficulties in communicating with customers about arrearage forgiveness causing dissatisfaction with this program component. Many customers do not understand that they can only receive arrearage assistance once. Customers are sometimes informed they have received an arrearage award only to find out that it’s not available because the funds have run out.

*“The program needs to be monitored so that all of the people promised money get it.” – Stakeholder*

3. *Arrearage threshold.* In the first program year, LAAs reported that arrearage forgiveness was sometimes used for small arrearages such as amounts under \$100. Many interviewees believed that the money should not be used for arrearages at this level since customers will not be disconnected for an arrearage under \$100 and they can only receive the benefit once. Other interviewees believed there should be a minimum arrearage forgiveness amount, and that customers could receive arrearage forgiveness more than once as long as total assistance didn’t exceed this amount. One state staff interviewee pointed out that establishing a minimum threshold, however, could provide an incentive for customers to accrue larger arrearages. Some LAAs recommended having an arrearage forgiveness maximum to discourage customers building up large arrearages.

OHEP responded to these comments and established an arrearage floor of \$100 and arrearage ceiling of \$2,000 starting in PY 2006.

4. *The role of arrearage forgiveness in EUSP.* There is considerable disagreement among interviewees about what role arrearage forgiveness should play in EUSP.
  - Some interviewees believe that arrearage forgiveness should complement budget billing and the program’s goals of helping customers maintain their energy bills by

### 3. Process Evaluation. . .

building in a program component that requires customers to be proactive in making payments in order to receive arrearage forgiveness.

*“I am a firm believer that if we are going to make them become more self-sufficient, we shouldn’t forgive arrearages unless they’ve made some payment in the last 90 days. We don’t help them if we let it build up. We must make people more accountable in the arrearage program. I’ve worked in social services for 29 years and I really believe we need to help people become self-sufficient.” –LAA*

- Other interviewees believe that arrearage forgiveness is under funded and that a much larger percentage of EUSP monies should go to arrearage forgiveness instead of budget billing because the affordability issues these households face are too great to overcome.
- Many interviewees are advocates of participants only being able to receive arrearage forgiveness once in order to give them a clean slate, which they can then maintain with budget billing. Others feel that it is impossible for customers to maintain this clean slate because of high energy costs and the resource constraints these households have. Some LAAs point out that the arrearage forgiveness component provides an incentive for households to build up an arrearage so they can receive a larger program benefit.

*“It used to be an arrearage of \$500 was high, but now I see arrearages of \$2,000 about twice a week. This situation will only get worse under deregulation.” –LAA*

## 4. **IMPACT EVALUATION KEY FINDINGS AND RECOMMENDATIONS**

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### 4.1 **PURPOSE OF THE IMPACT ANALYSIS**

The purpose of the impact analysis was to determine if the EUSP program has influenced participants to change their utility bill paying behaviors. The EUSP program goals include assisting clients in meeting their utility bills so that they will have a safe and more comfortable household, help to stabilize the household financially, and to assist participants to improve their billing paying behaviors. The objectives are to help participants increase the amount they pay, the consistency with which they pay, the percentage of the bill that they pay, and the overall amount that they pay.

### 4.2 **THE DESIGN AND IMPLEMENTATION OF THE IMPACT ANALYSIS**

The design of this study involved four key components:

- Four samples of participants and nonparticipants
- Six measures of behavior
- A pre- and post-program measurement design
- Construction of the measures

#### 4.2.1 **Analysis Groups**

The impact analysis is based on two participant groups and two nonparticipant groups. The four groups are:

- A random sample of **new participants** who signed up for the program between July 1, 2004, and June 30, 2005 (PY2005) and had not previously participated in the program. The sample was drawn from a list of approximately 28,000 new participants in PY2005 that was provided by OHEP. Care was taken to make sure that these participants had participation dates distributed throughout PY2005. This was done to avoid bias in the sample as those who sign-up early, for example, in August, September, and October, may tend to differ from those who sign up in April, May or June.
- A random sample of **continuing participants** who participated in the program prior to June 30, 2004 and who had at least 12 months of billing data prior to that date. This sample was drawn from the list of participants provided by OHEP that had participated in the program in PY2004 or earlier. This list had previously been used for the descriptive analysis that was completed in April 2005.
- A random sample of **all households** (nonparticipants) within the utility service territories. The list for these households was randomly drawn by the six investor owned utilities and provided to the evaluators.
- A random sample of **near neighbors** (nonparticipants) who were within a few doors of the new participants and who did not participate in the program in PY2005. This list was created by identifying all of the ZIP+4 codes in Maryland with EUSP participants. The list was then sent to a commercial data supplier who provided a list

#### 4. Impact Evaluation Key Findings and Recommendations...

of all addresses in these ZIP+4 codes. From 5 to 10 addresses were typically received for each 9-digit ZIP code. Participants in EUSP in PY 2005 were removed from the list through a matching procedure. A random sample of nonparticipants was then drawn that was proportionate to the number of participants in the ZIP code. In other words, if there were multiple participants in the 9-digit ZIP code, an attempt was made to draw the same number of nonparticipants from that ZIP code. For 9-digit ZIPs where there were insufficient nonparticipants, a near neighbor household was substituted from another ZIP code.

The utilities were asked to provide credit and payment data for these four groups. This was done to differentiate credits and debits so that the focus of the impact analysis would be on the customer's bill paying behavior. For instance, some utilities supply appliances or services to customers in addition to energy. Debits that were unrelated to electric energy consumed or the delivery of electric energy were removed from the analysis. Likewise, payments that were received for non-energy services that were received on behalf of the customer but not paid by the customer were removed as well. This included contributions or benefits received from EUSP, a social agency or a church, if those could be identified

Utility billing systems are quite different with respect to the billing and payment data they maintain. Some have extensive categories for credits and debits while others have a much more limited set. For all of the utilities we were able to differentiate the EUSP payments. However, it was not always possible to differentiate payments that came from other nonhousehold sources and some of those payments may have been attributed to the client. Every effort was made to keep the data as consistent as possible but there were some variations.

The payment data were collected from the utilities in two waves. This was done to facilitate the collection of "current" data before it was removed from utility information systems. Utilities have different procedures for maintaining billing data. Some hold several years of data and some hold just 12 months. Those that maintain data for shorter periods have storage mechanisms for older data. A fair amount of effort on the part of the utilities is required to retrieve the older data. In one case, we successfully worked with a utility to recover older data from a print image format. One utility had updated its billing system during the period of interest, which meant that they had retrieve data from two different systems.

The first wave was a request for 24 months of retrospective data immediately following the closure of PY2005. The second wave of data was collected in July of 2006. This enabled us to capture a full year of data following conclusion of the 2005 program year.

##### a. *BEHAVIORIAL INDICES*

Six indices were constructed to capture the different elements of bill paying behavior. The six indices are as follows:

- Two measures of average payment were calculated – one based on the number of billing cycles and the other on the number of billing cycles in which a payment was made. These two averages get at the size of the payments that the participants and nonparticipants make.
  - The ***average period payment*** is the sum of the payments divided by the number of months in the analysis whether or not a payment was received. For example, if there were 12 billing periods in the analysis period and a participant paid \$100 in

each of the periods, the average period payment would be 100. If the participant made 10 payments of \$100 in each of twelve months then the average period payment would be \$83.33.

- The **average payment when a payment was made** is the sum of the payments divided by the number of periods in which a payment was actually made. As an example, if a respondent made a payment of \$200 in each of six months during a 12 month period, the average payment when a payment was made would be \$200 (whereas the average period payment would only be \$100).
- **Promptness of bill payment** is the average number of elapsed days between a billing date and the date when the customer made the next payment. This gets at the dimension of timeliness. A reduction in the average number of elapsed days means that customers are becoming more timely with their payments. Typically, utilities expect customers to make a payment within 20 days of the billing. If a customer always paid exactly on the due date they would have promptness of payment index of 20. If a customer immediately paid their bill upon receiving it, the promptness of payment index would likely be four or five days, which is the amount of time it took to receive the billing and the amount of time it took the payment to be received.

As an example of how this index is calculated, the elapsed time to payment for a household that is billed on February 1 and that makes a payment on February 20 is 19 days. However, if there is no payment in February, another billing on March 1, and then a payment on March 15, the elapsed time for the February billing is the number of days between February 1 and March 15 or 42 days and the elapsed time for the March billing is 14 days (15 minus 1). The two values are averaged to obtain an elapsed time index, which in the case of the example is 28 days.

The elapsed time index may underestimate the actual elapsed time. If a payment is not made for one or more of the last billings in a study period, the elapsed time will only be calculated through the end of the last billing period even though a payment may not be made until much later. This may also result in some variance in the accuracy of the estimate of the elapsed time because some participants may have made a payment during the last billing period while others may not.

- **Completeness of bill payment** is the amount of the customer's bill that is paid by the customer. Customers may not pay their utility bills frequently or consistently but over time they may pay a substantial portion of a bill if not the entire bill. Thus, they may be late but they did pay. Completeness of bill payment captures this.

The completeness index was calculated over a set of billing cycles by summing the customer's credits and the customer's debits after removing unrelated credits or debits. The sum of the credits was then divided by the sum of the debits to obtain an index that generally varies between zero and one. In some instances, the actual completeness index can exceed one because a customer may have paid an outstanding balance or there may be more credits than debits because the billing and data collection cycles do not correspond exactly. Also, for someone who consistently paid, the index might be slightly below one because a payment for a debit was not due or may not have been received until after data collection was completed.

- **Regularity of bill payment** is the number of billing months in which customer makes a payment divided by the number of months in which a payment is due. If 12 billings were sent to a customer and the customer made six payments the regularity of bill payment index would be 0.5 (6/12). This index captures the frequency of payments but not the consistency of payments (see below).
- **Continuity of payment** is the consistency with which a participant made payments during a study period. A participant making nine of 12 payments during a study period could do so in several ways. A participant might make the payments in nine consecutive months missing three payments at either the beginning or the end of the year. Alternatively, the participant might make eight payments, skip a payment, make a payment, and skip two payments. Another alternative is that the participant makes three sets of three payments separated by a missed payment with a missed payment at either the beginning or the end of the study period. The index was developed so that customers with longer strings of payments would have higher continuity scores. From a continuity perspective, it is preferable for a customer to have nine payments in a row as opposed to three sets of three payments with missing payments between.

The continuity index is the sum of the square of payments made in sequence divided by the square of the number of billings in the study period. Thus, if a participant makes 12 payments in a row and there are 12 billing periods then the continuity index is  $12^2 / 12^2$  or one. This means that the participant consistently paid the electric bill. The continuity index is structured so that the more payments that are made in sequence, the higher the continuity index. A household that made 9 of 12 payments in contiguous months would have a continuity index of  $9^2 / 12^2$  or 0.56. A household that made 9 of 12 payments where four and five of the payments were in sequence, would have a continuity index of  $(5^2 + 4^2) / 12^2 * 100$  or 0.28. The three missed payments could have been dispersed at the beginning, middle, or end of the study period; have all been at the beginning, middle, or end; or in some other combination. A final illustration is that nine payments made in clusters of 3 would result in a continuity index of  $(3^2 + 3^2 + 3^2) / 12^2$  or 0.19. The continuity index captures how payments are made in sequence.

#### 4.2.2 A Pre-/Post Program Measurement Design

The study is a pre/post comparison group design. Table 4.1 shows how this was done for a given behavior. For example, for new participants we calculated a value for elapsed days for each respondent before the respondent participated in the program and we calculated elapsed days from the point at which the customer began participating in the program until the end of the monitoring period.

We chose the certification date for new participants as the break point between pre and post behaviors. The certification date is the date when a participant in the program completed all of the paperwork and was certified by the LAA as meeting eligibility requirements for the program. Once a customer is certified, the appropriate utility is notified that the participant is eligible and receives the annual payment for that person. As noted previously it may take approximately two weeks from certification until the payment is applied to a customer's account.

For the other three groups, the idea was to mirror the pre and post periods of the new participants. Continuing participants had a certification date that pre-dates the study period but we wanted to see if their behaviors changed before and after a date during the study period. The question is, did their behaviors change over time and if so, did the payment behaviors improve? Likewise, with the near neighbor nonparticipants and all customer nonparticipants, we wanted to see how their behaviors changed before and after a date within the study period. Thus, the households in these three groups were assigned a pseudo participation date.

A list of the certification dates for the participants was prepared and one of the dates on the list was randomly assigned to each continuing participant and each nonparticipant. The result was that continuing participants, near neighbor nonparticipants, and all household nonparticipants were assigned a participation date in PY2005 just as if they had participated in the program.

**Table 4.1**  
**Study Design to Be Applied to Each Behavior**

Study Period (Approximately July 2004 to June 2006)				
	Treatment	Pre-treatment behaviors	Treatment	Post-treatment Behaviors
New participant (NP)		NP <sub>b</sub>	X	NP <sub>a</sub>
Continuing Participant (CP)	X	CP <sub>b</sub>		CP <sub>a</sub>
Near-neighbor nonparticipant (NNNP)		NNNP <sub>b</sub>		NNNP <sub>a</sub>
All customer nonparticipant (ACNP)		ACNP <sub>b</sub>		ACNP <sub>a</sub>

The red “X” indicates when the participants were certified. The subscript “b” stands for “before” and the subscript “a” stands for “after.” We say “approximately July 2004 to June 2006” because in many instances we had pre-participation data that predated July 2004 and because of the way in which billing dates slide we may not have had complete data for some subjects for June 2006.

Table 4.2 illustrates how the effects are determined. For each group and each of the behavioral measures the post treatment effect is subtracted from the pre-treatment effect for each of the groups.

**Table 4.2**  
**The Calculation of the Effects**

Study Period (Approximately July 2004 to June 2006)	
Effects	
New participant (NP)	$NP_e = NP_b - NP_a$
Continuing Participant (CP)	$CP_e = CP_b - CP_a$
Near-neighbor nonparticipant (NNNP)	$NNNP_e = NNNP_b - NNNP_a$
All customer nonparticipant (ACNP)	$ACNP_e = ACNP_b - ACNP_a$

#### 4.2.3 Construction of the Measures

The construction of the measures was a fairly complicated multi-step process.

The first step upon receiving the data was to do an initial quality screening and to produce the raw input data. The purpose of the initial quality screening was to identify any problems with the data. In most cases, quality issues that were encountered could be addressed through additional processing steps. Most of these issues were related to reformatting data so that it was consistent across the utilities. In three instances we had to return to the utility supplying the data to seek additional information or to have a corrected set of data provided. We are grateful to the utilities for their patience in regard to this matter.

The second step was to create the raw input data files that could be fed to an analysis program. We created a data file that contained a record of all billings and all credits for each customer for as many months of data as were available. This file consisted of records made up of four items.

1. An unique customer identification number
2. A transaction date
3. A transaction amount
4. A transaction code indicating whether the transaction represented a customer payment, a payment or credit from another source, a billing for electric energy related charges, or a billing related to non-energy charges. The payment and billing codes from the utilities were used to identify into which of the categories a transaction fell.

#### 4. Impact Evaluation Key Findings and Recommendations...

At this point, each record was assigned a certification date, a group identifier, and a utility identification. The records were then sorted into 48 separate files representing utility, pre or post data, and group. Because of its design, the program to calculate indices had to be run by group, by pre or post, and by utility.

Each of these 48 files was sorted by customer, transaction date, and transaction code. A specially written visual basic program to calculate the indices was run on each of the files. The program operated in two stages. The first stage produced an interim file with a set of interim values. The second step processed the interim values to produce a file with the actual indices for each account.

The files with pre and post data for the same accounts were merged and the utility, group and certification date were added. At this point, any account that had fewer than 11 observations in either the pre or post period was removed from the analysis. At least 11 observations are needed to calculate a reasonably reliable value for the behaviors. Indices calculated with fewer observations might be biased by observations representing only winter or summer months when bill payment behaviors might differ because of the shut-off rules or other factors.

The data were then organized and loaded into SPSS for analysis.

#### 4.2.4 Findings

The analysis consisted of constructing pre and post averages for each of the behavioral measures by group. In addition, we calculated the differences before and after the participation date / pseudo participation date and then the averaged differences for households by group and by measure.

Before describing the results, we might think about what we would expect. The goal of the EUSP program is to assist households to meet their utility bills and to assist them to improve their bill paying behaviors. All households and near neighbor households (low income) are not program participants. We would not expect their behaviors to change in response to the program although they might change in response to other factors such as weather conditions, changes in the economy, changes in energy prices. Participants would be subject to these same factors as well. The hope is that new participants would change their behaviors in certain ways. First, we might expect to see the two average payment measures decline, the first because these households are now receiving EUSP benefits and the second because changes in behavior result in participants having to pay less even when they miss a payment. With respect to elapsed days, we would expect to see average elapsed days to payment decline. With respect to completeness, regularity, and continuity, we would expect to see participants improve. In other words, we would expect to see participants pay a higher percentage of their bill, pay bills more often, and pay with more consistency.

For continuing participants, the expected pattern is nearly the same but not quite. Because these households have a longer history in the program we might expect to see their average payments increase. We would expect to see their elapsed days decline, and their continuity and completeness indices increase.

Table presents the average pre and post values and the differences between them for each measure and all groups. The pre and post values of the indices and the differences between the indices are presented in the columns. The rows represent the groups of participants.

#### 4. Impact Evaluation Key Findings and Recommendations...

When comparing the before participation average period payment for each of the groups, the all households sample had the highest average period payment (\$143.50), near neighbor households the next highest (\$101.20), new participants the next highest (\$85) and continuing participants the lowest (\$55.90). These average period payments make sense. The all households sample would include larger dwellings with more appliances. We know that near neighbor households are low-income households that tend to be more stable (see the next section). Continuing households are households that have remained in the program but because of program dropouts from the program, represent a subset of their original cohort. These are stable households with limited means who need the support and have continued to participate. The new participants likely represent a broader range of households than do the continuing households because of the dropout rate for continuing households.

When we compare the pre and post periods for the average period payment we see that the average period payment for new participants declined by a bit more than \$19 and the average period payment for all households and near neighbors declined by about \$10 and \$3 respectively. If nothing changed between the pre and the post period, then the differences would be zero. The decline in average period payment for new participants is statistically different than zero (significant) while the decline for all households and near neighbor households is not. The average payment for continuing participants increased and the difference is statistically significant.

We would expect that the average period payment of new participants to decline because some of their utility bill is being paid by EUSP so there is a smaller amount to be paid. The completeness index suggests that they were also paying a smaller percentage of their bill than in the before period. One interpretation of this is that new participants were financially quite marginal and upon receiving support shifted their funds to other necessities. One interpretation of the increase in the average actual payment of continuing participants is that they were able to pay more in the post period. If we look at the completeness index we see that continuing participants are paying a higher percentage of their bill although the increase is not statistically significant.

The second set of columns presents average actual payments. The all households sample had the highest pre-period average actual payments (\$188.10), new participants the next highest (\$145.60), followed by near neighbors, and continuing participants. The average actual payments increased between the pre and post period across all groups. The increases for continuing participants and near neighbors were the largest and second largest and both of these increases were significant. The increases for new participants and all households were not significant and therefore could not be distinguished from zero.

Another way of looking at this information is to look at the ratio of the average actual payments to the average period payments. For example, new participants had an average actual payment of 145.6 but the average period payment was \$85.20. Thus, when they paid, they paid about 1.7 times the average period payment. The same ratio for continuing participants is 2.5, for all households 1.3, and for near neighbor households 1.4. What this means is that when they did pay, continuing participants and new participants paid much larger amounts compared to what they would have paid if they had paid on a more consistent basis compared to all households and near neighbors. This pattern is consistent with households under financial duress that are managing expenditures to optimize funds to keep food, medicine, rent, and necessary services available.

The third set of columns is averaged elapsed days. This index is the average days from billing to the next payment. The utilities would like payments to be received within 20 days of billing. Prior to joining the program new participants had an average elapsed days from billing to payment of about 33 days, continuing participants 53 days, all households 22 days, and near neighbors 26 days. On average all households and near neighbors were close to the desired utility average. Continuing participants had the longest elapsed time. After the program participation date, we see that the average elapsed days increased for the new participants and dropped for continuing participants. Both of these changes were statistically significant. There was no significant change for the other two groups.

Thus, new participants' behaviors moved in a direction inconsistent with what was desired but the behaviors of continuing participants improved substantially. It is perhaps not surprising that new participants were less prompt. They may have perceived that the EUSP payments gave them some "breathing" room and used the "breathing" room to deal with other aspects of their lives. We noted in earlier sections that there was some confusion among new participants about how credits appeared on bills and how the budget billing worked. The improvement of the continuing participants is consistent with improvement as a result of the longer-term effects of the program and the fact that many of the less financially able households may have dropped from the program. The residents of such households may have been absorbed into other households, have obtained service in some other way, or moved from the service territory.

The completeness index is an indicator of the percentage of the total bill for which the household was responsible that was paid during the before and after periods. This is an approximate measure because of the way in which the billing periods align with the study periods. If someone paid all of their bills, you would expect them to have a completeness index of 100. However, they might have made have payment or a large payment for some past due amount near the beginning of the study period or might not yet have paid a bill at the end of the period. In the first case the completeness index might exceed 100 and in the second it might fall short of 100 percent.

Scanning down the column for the before period, it is apparent that all households (97 percent) and near neighbor households (103 percent) essentially paid 100 percent of their total bills in the before period. New participants paid about 84 percent of their responsibility and continuing participants about 74 percent. Continuing participants increased the percentage of their bills that they were responsible for paying in the after period although this was not statistically significant. The other three groups exhibited a pattern of paying a declining percentage of the total bills for which they were responsible in the post participation period. The decline for the near neighbors was not significant. The declines in percentage for new participants (10 percent) and all households (5 percent) groups were significant. Overall there was a slight decline in the completeness index. The decline for new participants runs somewhat counter to what one might expect. Partially, this decline could be part of a more general trend. That would be consistent with the overall decline and the decline for all households. Another possible explanation is that new participants had not fully adjusted their expectations about the levels of support provided by the program.

The overall pattern for the regularity index is nearly identical to that for the completeness of payment except that the changes in regularity were statistically significant in each case. Continuing participants had improved regularity while for all other groups there was a decline. The decline in regularity scores for all households and near neighbors may be a short term aberration or it may represent the beginnings of longer term trend as utility rates increase.

#### 4. Impact Evaluation Key Findings and Recommendations...

The continuity index assesses the consistency with which customers make payments. The before column shows that all households had the highest level of consistency, followed by near neighbors, followed by new participants and then continuing participants who were the least consistent. Going back to the discussion of the average payments the reader may recall that continuing participants had a high ratio of average actual payments to average period payments. Clearly the reason for this is that the consistency of their payments was very low in the before period.

In assessing the differences in how continuity changed between the before and after period we see that the changes in continuity are significant for all groups. In particular we see a decline in the continuity scores for new participants as well as the scores for all households and near neighbors. Continuity scores for continuing participants improved. This is mixed news for the program. The hope, of course, was that new participants and continuing participants would improve but only the continuing participants did. Continuity scores may decline as bills become larger and more households manage them by skipping payments. As noted with respect to regularity, the decline of continuity scores for all households and near neighbors may be a short-term change or it could, because of rising rates, portend less consistent payment behaviors for all customers.

**Table 4.3  
Pre and Post Period Values for Six Behavioral Measures**

	Average period payment			Average actual payment made when a payment was made			Elapsed Days		
	Before	After	Difference	Before	After	Difference	Before	After	Difference
New Participants	\$85.2	\$65.8	\$-19.40* N = 910	\$145.6	\$151.5	\$5.9 N = 910	32.6	44.0	11.4* N = 910
Continuing Participants	\$55.9	\$68.9	\$14.0* N = 377	\$138.9	\$161.7	\$22.8* N = 377	53.4	42.9	-10.5* N = 377
All households	\$143.5	\$133.5	\$-10.0 N= 777	\$188.1	\$193.3	\$5.20 N= 777	21.8	22.1	-0.1 N= 777
Near neighbor households	\$101.2	\$98.0	\$-3.20 N = 735	140.6	152.8	12.2* N = 735	25.6	25.1	-0.5 N = 735
Total	\$101.7	\$93.5	\$-8.2 N = 2799	\$155.2	\$164.8	\$9.6 N = 2799	30.5	32.7	2.2 N = 2799

**Table 4.4**  
**Continued Pre and Post Period Values for Six Behavioral Measures**

	Completeness of payment			Regularity of Payment+			Continuity of Payment		
	Before	After	Difference	Before	After	Difference	Before	After	Difference
New Participant	83.6	73.2	-10.4*	70.0	58.0	-12.0*	0.3	0.2	-0.1*
			N = 910			N = 868			N = 910
Continuing Participants	73.7	74.2	0.5	57.2	61.8	4.6*	0.18	0.24	0.07*
			N = 377			N = 373			N = 377
All households	97.6	92.3	-5.3*	86.8	82.3	-4.5*	0.52	0.45	-0.07*
			N = 777			N = 745			N = 777
Near neighbor households	102.9	98.6	-4.3	80.9	75.5	-5.4*	0.43	0.38	-0.05*
			N = 735			N = 701			N = 735
Total N = 2799	91.3	85.3	-6.0	75.7	69.8	-5.9	0.4	0.3	-0.1
			N = 2799			N = 2687			N = 2799

\* indicates that the value is statistically different than zero by  $\pm 5$  percent at the 95 percent confidence level

The bottom line from this analysis is that the hoped for improvements in behavior for new participants did not materialize in the first 12 months following participation in the program. While the average period payment declined for new participants, which is what one might expect, the other measures exhibited trends that were contrary to improved payment behaviors. New participants exhibited an increase in elapsed days, and decrease in completeness, and a decrease in the continuity index.

The bottom line from this analysis is that the hoped for improvements in behavior for new participants did not materialize in the first 12 months following participation in the program. While the average period payment declined for new participants, which is what one might expect, the other measures exhibited trends that were contrary to improved payment behaviors. New participants exhibited an increase in elapsed days, and decrease in completeness, and a decrease in the continuity index

#### 4.2.5 Total Electric Bill Impacts

The evaluation focused on the effects of EUSP on *participant* behavior as detailed in the above impact evaluation discussion. Because of this focus, the evaluation did not include a detailed analysis of the total effect of EUSP on the percentage of electric bills paid. However, an analysis taking into account the average percent of electric bills paid by EUSP in addition to the effects of EUSP on participant behavior for continuing participants shows that for PY 2005, the program accounted for almost half of participants' electric bills getting paid as shown in Table 4-4 below. This analysis only focuses on continuing participants because they are the majority of EUSP participants and because of the above stated reasons (e.g., coming to the program in crisis situations) that EUSP new participants differ from continuing participants.

**Table 4.5**  
**Total Net Average Effect of EUSP on Electric Bills in PY 2005**

	<i>EUSP continuing participant</i>	<i>Low income comparison group</i>
Average annual electric bill PY 2005 <sup>27</sup>	\$1,019	\$1,019
Average annual PY 2005 EUSP benefit <sup>28</sup>	\$263	n/a
Average annual behavior change in PY2005	\$168	-\$38

<sup>27</sup> Average electric bill was determined through analysis of EUSP database that shows annual consumption of 10,992 kWh for participants and secondary sources showing an average of 9.27 cents/kWh as discussed in the Introduction to this report. An analysis of the low-income comparison group consumption records for the impact evaluation show that energy consumption did not differ significantly between participants and the comparison group. Therefore, we are using the same average annual electric bill for both groups for comparison purposes.

<sup>28</sup> Office of Home Energy Programs PY2005 EUSP annual report

	<i>EUSP continuing participant</i>	<i>Low income comparison group</i>
Average change in percent of PY 2005 bill paid	43%	-4%
<b>Total net average effect of EUSP program on percent of PY 2005 bill paid for continuing participants<sup>29</sup></b>	<b>47%</b>	

#### 4.2.6 Self-reported program impacts

As discussed in the process section, the customer survey asked new 2005 participants about the program's effects on their bill payment behavior, arrearages and service connection. While the utility data shows that bill payment behavior did not improve for new 2005 participants during the study period, survey results suggest that participants' situation in regards to bill payment, arrearage amounts and service connection would have been *worse* if they had *not* participated in the program.

Participants felt their bill payment behavior was better than it would be in the absence of the program. Half (47%) of new participants said they would have paid fewer bills on time without the program.

In addition, there was a statistically significant decrease in the percent of customers reporting having arrearages and service disconnects before they participated in the program (Table 4.5).

**Table 4.6**  
**Self-reported Arrearages and Service Disconnects Before and After EUSP Participation (N=387)**

	<b>Percent Reporting Before EUSP Participation</b>	<b>Percent Reporting After EUSP Participation</b>
<b>Owed money for previous due electric bills (e.g., arrearage)</b>	38%	23%*
<b>Service disconnected for lack of payment</b>	17%	3%*

Source: EUSP new 2005 participant survey, January – February 2006, Question B2, B3

<sup>29</sup> Total net average effect of EUSP = Continuing participants average change in percent of bill paid – low income comparison group average change in percent of bill paid.

## 5. **CONCLUSIONS AND RECOMMENDATIONS FOR FURTHER REVIEW**

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We draw three basic conclusions from the process and impact key findings discussed above:

1. The program is reaching and helping households with some of the most severe needs.
2. New or recent participants in the program don't exhibit improved payment behaviors and probably cannot respond with improved bill payment behaviors in the short-term because they have other substantial needs as well.
3. Participants continuing in the program do show improvements in bill payment behavior.

There are several quantitative indicators of program success including:

- The annual increase in applicants, which represents a 48% increase since the first 2001 program year
- The program reaching households in great need of electric assistance as seen by the high average electric burden of participants and the customer survey results showing the need of these households and their concern with meeting monthly electric costs
- High participant satisfaction with the overall program and the application process
- Improved bill payment behavior on the part of *continuing* participants indicated by the impact evaluation

The evaluation results suggest the program is making significant progress in meeting the three program's goals outlined in the Introduction to this report. There is evidence that the program is assisting low-income electric customers to *meet* their electric needs and encouraging regular, prompt, and complete payment of electric bills **over time** (e.g., for continuing participants). The demographic analysis and customer surveys also show the program is successfully targeting electric customers with high annual electric burden (home electric costs divided by household income) and need. There is also some evidence in the customer surveys that the program is helping participants maintain electric service as a higher percentage of new 2005 participants reported having their service disconnected for lack of payment *before* they participated in the program than *after* they participated.

It is also important to note that the evaluation focused on *participant* behavior. For example, the impact evaluation payment indices did not include EUSP payments. Therefore, if you look at results at the *bill* level, a greater percentage of electric bills are being paid as a result of the program.

EUSP is still a relatively new program and interviewees indicate the program has greatly improved during its first five years. The program has made several changes in its design and administration over the evaluation period that evaluators believe are increasing the program's progress towards its goals. These include:

- Providing more broad-based outreach at the state level and more support to LAAs in completing annual outreach plans

- Revising the arrearage forgiveness component so that funds are no longer distributed on a first-come, first serve basis and establishing an arrearage forgiveness floor and ceiling
- Distributing program benefits more fairly by changing from a benefits matrix to a benefit formula to prevent any compensation that would result in a zero co-payment and to take into account households' needs through multiple dimensions instead of two-dimensions
- Increasing program communication and coordination by producing and distributing program procedures and documentation and providing LAA staff training and monthly calls with LAAs
- Expanding program benefits to the “working poor,” a group as identified as missed by the program when eligibility was limited to 150% of the federal poverty level, by increasing the eligibility level to 175% for EUSP funds and 200% FPL through general funds for PY 2006.

## 5.1 RECOMMENDATIONS

Although all of the above do indicate the program is “on the right track,” given the energy environment of the next upcoming years, the increasing applicant numbers and issues identified through the process component of the evaluation, we believe the greatest challenge EUSP faces is being able to effectively and efficiently serve participants.

We recognize that the program is operating under administrative resource constraints, which has made some areas of program administration difficult. Given this environment, we offer the following recommendations for policy makers and program managers to consider. These recommendations are not mutually exclusive and in many cases have areas in which they overlap.

### 5.1.1 Explore ways to increase program retention of eligible households from year-to-year.

The impact evaluation results suggest that if the program is to have positive effects on bill payment behavior, households need to come into the program and participate in it for two or more program years before any improvement is seen. The hypotheses behind this is that households come into the program in crisis and it takes more than a year to get them out of crisis and understanding the program so that bill payment behavior can improve. As discussed in the process evaluation section, the program does experience fairly high attrition, approximately a third of participants in one program year do not apply the next. A portion of this (approximately 3%) is because households are better off and this is a positive development. However, the majority of households not re-applying to EUSP report not doing so because of “hassle” or “transaction” costs associated with applying (e.g., they can't get to an agency, they don't have time, they didn't receive a mail application). While we do not recommend complete automatic enrollment because of the need to re-certify income eligibility and gain participant understanding and cooperation with the program, we do recommend exploring ways to minimize hassle and transaction costs of applying to the program. One suggested way to do this is through using previous years' applicant information to populate applications for the next program year so that the amount of information a participant has to complete is minimized. A second option would be to send an abbreviated applicant that only

asks for certain key pieces of information (e.g., income) that need to be re-verified as well as any account or address update information.

**5.1.2 Investigate the trade-off between greater program standardization to deliver services consistently throughout the state and inefficiencies that may result from greater standardization.**

One EUSP stakeholder believes a lack of program standardization is resulting in distributing EUSP benefits inequitably. This stakeholder believes greater program consistency is needed for equal protection and fairness through the program. OHEP has taken proactive steps to increase program consistency. For example, OHEP distributed in November 2004 an updated Operations Manual, which details application eligibility, requirements, handling, and processing. LAAs also report that the newly implemented monthly conference calls have, *“really helped us all get on the same page.”*

Evaluators recommend OHEP continue their efforts to support more consistent program implementation by LAAs. Examples of other support activities OHEP could hold to increase program consistency are annual update training for LAA staffs, an annually revised Operations Manual, periodic newsletters and frequently asked questions, and continuing to build on improved communication between OHEP and LAAs as well as between LAAs.

While greater program standardization can facilitate the program serving low-income households more consistently throughout the state, it could also place administrative burden on LAAs that already report administrative constraints. Furthermore, LAAs pointed out in interviews how different counties can be from one another and how they know their clientele best. For example, rural counties said application fairs would not work well for them while they may be working for some urban counties. Another LAA reported how they know that there is a segment of their population with seasonal employment that needs assistance in the winter and they know they can only get them to apply by going to the local firehouse. Another LAA reported that they have spent 25 years building up their local referral system of programs and services for low-income households. Therefore, program managers must be careful not to dictate procedures that take away from the LAAs’ abilities to capitalize on their strengths and best reach and serve their target customers. At the same time, there are outstanding issues that do need to be addressed such as the large variation in percent of eligible population served by county.

We recommend OHEP explore addressing the issue of program equitability by setting consistent goals (e.g., percentage of eligible households served) for LAAs, but allowing them flexibility in how they meet these goals. If an agency falls short of their goal, OHEP could require them to submit an action plan of how they plan to improve their performance in relation to this goal. At the same time, those with outstanding performance for specified goals should be recognized. This approach could address concerns raised by utilities and stakeholders not only about the consistency of EUSP implementation by LAAs, but also the need for EUSP performance expectations and greater accountability.

*“I don’t know if the agencies have any performance or contract expectations. It’s not right to only see six applicants a day.” –Utility*

### 5.1.3 Strengthen program processes that will improve the equitable distribution of EUSP benefits across the state.

This recommendation is related to the one above, but deals more specifically with program processes that could be strengthened to result in more equitably distributing EUSP benefits across Maryland. Program processes that could be strengthened to improve the distribution of EUSP benefits include:

- Program communication and coordination
- Goal definition
- Program outreach
- Arrearage forgiveness.

#### a. PROGRAM COMMUNICATION AND COORDINATION

While all interviewees consider communication greatly improved it is clear that there are still several areas of misunderstanding and misinterpretation of the program. Furthermore, while communication between OHEP and LAAs has improved, there appears to have been limited improvement with utilities. Several interviewees mentioned the importance of “*three way communication*.” We recommend program managers consider inviting utilities to monthly teleconferences on a periodic basis or establishing another venue for LAAs, utilities and OHEP to discuss issues together. As discussed under the EUSP Administration section, several LAAs “believe that utilities are not administering EUSP as intended through COMAR” This incorrect notion illustrates the additional need for educating both the grantee and the grantor. This situation will only become more complicated under de-regulation when EUSP benefits may need to be administered by both generating and distributing electric providers. Improved communication and coordination between OHEP, LAAs, and utilities should start now to not only help LAAs administer the program more consistently, but also foster utilities doing so.

Some interviewees do not feel they have sufficient input into program policies and procedures. Increased communication could also help all relevant parties have input into issues and result in greater buy-in to policy decisions. We recommend that improved communication and coordination go beyond meetings and discussions to also include written documentation of results for distribution to all relevant parties.

Along this line, we would recommend that OHEP update the Operations Manual and program application annually and distributing to LAAs, utilities, and other relevant stakeholders such as local fuel funds, the Office of People’s Counsel, and Commission Staff. We would further recommend holding annual program update training with LAAs and utilities throughout the state at the beginning of each program year.

#### b. GOAL DEFINITION

Another objective of increased communication and coordination should be to develop a common consensus on the goals of the programs. Utilities and stakeholders noted that LAAs not only have different management styles, but they also have different understandings of the program. While we believe there are positive results in allowing LAAs flexibility in implementing the program as long as certain rules and guidelines are followed, we stress the

importance of establishing a clear consensus and understanding of the program's goals and objectives.

*c. PROGRAM OUTREACH*

Outreach practices differ considerably among LAAs. While some LAAs are dedicated to outreach and feel they have expertise in this area, other LAAs feel they need more guidance from the state and/or do not have sufficient resources to do outreach. As discussed under the EUSP Administration section, some utilities believe these differences in outreach result in inequitably distributing the program benefits across the state. Furthermore, at least one utility was specifically concerned that OHEP also does not have sufficient resources to do appropriate outreach.

We believe there is considerable evidence that the state OHEP staff is already operating under a considerable workload and it would be difficult for them to take on new duties. As a result, we recommend OHEP petition the DHR to add an outreach specialist position in the state OHEP office. The outreach specialist should have the proper background (low income households) to effectively reach and communicate to the low-income population. Examples of types of duties this outreach specialist could perform are: coordinate statewide EUSP campaigns in the media, monitor and support LAAs' local outreach efforts, track and coordinate with utility outreach efforts, and design consistent templates for LAAs and utilities to use to promote the program to their customers.

*d. ARREARAGE FORGIVENESS*

In the 2005 interim evaluation report, we recommended changes in the arrearage forgiveness component of the program. We believed that the process was not resulting in an equitable distribution of arrearage benefits across the state. Whether a person should receive benefits or not should not depend on how proactive their LAA is or when they apply for EUSP. OHEP responded to this recommendation and now each LAA has their own pot of money to allocate at their discretion.

However, program managers and policy makers need to re-visit the role of arrearage forgiveness and the proper amount of funding for arrearage forgiveness. The current funding level remains fixed at \$1.5 million a year despite EUSP funding increases for PY 2007. This suggests a 'decreased' role for arrearage forgiveness. Furthermore, we recommend discussing ways to bring arrearage forgiveness more in-line with the overall program goal to improve bill payment since many interviewees indicated a lack of an arrearage co-payment is counter to the program goals. Any changes in arrearage forgiveness should be clearly communicated to LAAs so they can fairly and consistently distribute the arrearage forgiveness component

**5.1.4 Convene the EUSP working group to discuss ways to increase the effectiveness of EUSP administration in the current environment of increasing energy prices and applicants. Specifically, the group should review changes needed in administrative funding limitations to address improvements in application processing, LAA training, and the OHEP system.**

The Commission authorizes expenditures based on a proposed budget submitted by OHEP. For the last two years OHEP has requested and the Commission has authorized Administrative costs of 10.5 percent from ratepayer funds plus an additional \$200,000 for

outreach.. While we recognize the importance of streamlining administrative costs to make as much money as possible available for benefits, there is ample evidence that EUSP is underfunded administratively. Interviews suggest the two main shortages are in staffing (both at the local and state level) and information system capabilities. Because of the growth in EUSP numbers over time, we believe these shortages are adversely impacting the timely processing of applications. Furthermore, as electric restructuring causes increased electric prices, we expect EUSP numbers to continue to grow as more eligible households feel the need for assistance and are motivated to apply. Interviews suggest that because of these administrative limitations, the majority of applications are processed via mail, minimizing the extent to which the program can do proactive education with customers. There is also limited training available for LAAs.

We already recommended the addition of an outreach specialist for the state OHEP office. We also recommend the working group investigate the administrative cost ramifications of additional seasonal staff at the local level (.25 to 1 full-time equivalent per LAA based on number of applications).

Second, the working group should investigate how to implement a rolling on-site application process to deliver education to customers. One suggestion would be to process applications face-to-face every three years with repeat participants and in-person application processing for all new participants.

Third, additional training for LAAs should be investigated by the working group. Trainings are needed not only for LAAs to consistently implement the program, but also to give them the tools they need to educate the customer.

Finally, the OHEP data system is inadequate and is not properly supported by the state. Because development effort was not adequate, we believe the system was never properly conceptualized or designed to support EUSP. Furthermore, not all the program needs were known at that time. The working group should address the deficiencies of the system and the capital investment required to address many of the data system deficiencies. Once the system is upgraded, increased but smaller amounts of capital should be allocated annually to continue improvements to the system.

We recommend a re-design that would start with a conceptual design document which would include estimates of the general requirements of the system including needed nodes, communications strategies, estimated usage levels, peak load requirements, storage requirements, etc. This should then be followed by a function description that lays out what the system is expected to do, detailed specifications and prototyping. The re-design effort should also involve extensive observation of how the system is used and discussions of its advantages and deficiencies with the users.

The OHEP data system warrants a state-level person dedicated to supporting and improving the system to meet its implementation needs. Currently, the server/communications part of the operation is handled by the Department of Human Resources' Office of Technology for Human Services although OHEP staff are involved in this as well. However, there is no dedicated staff for the OHEP data system because the Office of Technology for Human Services is understaffed. OHEP staff with other program responsibilities are having to fill this role.

As Maryland continues to switch to a restructured electric market, policy makers and program staff will need to monitor several issues to make sure EUSP continues to most effectively serve low-income customers.

As currently administered, EUSP benefits go to Investor-Owned Utilities, municipal utility companies and cooperatives. There is no benefit for retail suppliers of electricity. The EUSP working group should continue to explore avenues for including retail suppliers of electricity in EUSP. The availability of more competitive rates through electric suppliers that does not allow benefit payments to suppliers, would effectively lock EUSP participants into paying a higher rate for their electricity. This would not only be an ineffective means of allocating benefits from a cost perspective, but would also undermine the program's goal of making electric bills more affordable for low-income households. We recommend that the EUSP working group investigate how the state can coordinate with the private sector to continue to address the distribution of EUSP benefits. We also recommend that the working group investigate offering education through the program including average monthly/budget billing, understanding the utility bill, energy conservation, and inclusion of payment to retail suppliers.

Because of the limited education activities reported by LAAs and utilities, we believe the program to-date has achieved relatively little in relation to its goal to increase participant awareness of efficiency/conservation measures that result in lower and more affordable bills. We believe that this is likely to persist because of limited LAA administrative funds and the majority of applications being processed by mail. Research<sup>30</sup> has shown that in order for educational activities to be effective, educators must be both properly trained and have sufficient resources. Therefore, we advise the working group to look at the feasibility of offering increased education through the program.

We are aware that an intensive case management education structure is expensive and is a cost that EUSP should not bear alone, but should work with other social programs to deliver in a comprehensive manner. However, we do assert that there are some fundamental concepts that LAAs should cover with EUSP applicants that are specific to EUSP's goals. These are:

- What budget billing means as an average payment plan and what the expectations of the client are in maintaining their portion of the bill;
- How to read their utility bills specifically covering what their EUSP bill credit is and what portion of their bill they are to pay each month; and
- How clients can manage their energy use through behavioral changes and no- to low-cost energy saving measures.

#### **5.1.5 Assess how the new Benefits Formula serves the different segments of the participant population and effectively distributes the EUSP benefits.**

In the interim evaluation report, we recommended that the program use a benefits formula instead of a benefits matrix. The Benefits Matrix distributed benefits in categories based on poverty level (and those living in subsidized housing) and energy consumption. It was designed so that households at lower poverty levels had a higher percent of their electric bill

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<sup>30</sup> Lee, Lark, et al. *Is Client Education Worth It?* Association of Energy Services Professionals, December 2004.

covered by EUSP than those at higher poverty levels. However, LAAs reported (and this was confirmed by both a review of utility data and OHEP and Commission staff) that in some cases the benefits matrix resulted in too large of a EUSP credit and the household did not have to pay any share of their electric bill. In the utility data provided for the impact evaluation, we saw that this issue practically went away after the benefits formula was implemented instead of the matrix. We believe that the benefits formula is a strong step forward, but recommend that OHEP continue to review it annually to make sure it is resulting in a distribution of benefits most in line with the program goals. Most importantly, it should be reviewed in the context of increasing applicants. To the extent that restructuring results in higher electric rates, the number of participants may increase even more dramatically than seen in the last five program years as households have a greater incentive to receive help with their electric bills. With a fixed pot, greater participation numbers mean less benefits per participant. Therefore, OHEP will need to monitor the percent of need that is being met through the program to make adjustments to the formula annually.

#### **5.1.6 Explore ways to better coordinate EUSP with other assistance programs.**

The extent to which EUSP coordinates with other social programs varies considerably by administering LAA. One of the main advantages of having OHEP housed in DHR is that DHR includes the majority of assistance programs. As a result, opportunities for greater coordination among EUSP and other social programs exist and should be encouraged. We recognize that DHR did attempt to initiate a ‘one-stop shopping’ approach that did not come to fruition.

**APPENDIX A: PROCESS INTERVIEW RESULTS**

This appendix summarizes interview results from LAAs and utilities.

**Table A.1  
LAA Interview Results—EUSP Administration and Outreach**

Agency Description	# EUSP Staff	Staff Description	Sufficient admin funding?	Greatest Admin Need	MEAP/EUSP Coordination	Application Processing	Current Outreach Efforts	Outreach that Works Best
Other programs include head star, homeless shelters, housing programs, and weatherization. MEAP/EUSP is their biggest program (4,500 apps compared to 200 for next biggest program).	6	Two in-take workers, director, outreach coordinator, receptionist, data entry clerk.	Yes	Better outreach	Coordinate well in terms of income guidelines and application, but not timing. Benefit staggering causes customer confusion. It also increases their workload because they have to re-certify heating applications once MEAP is available.	Mail applications to prior year applicants. Apps are mailed and processed on rolling basis. New applicants come in unless home visit is required. "We need to get the word out more, but I'm not sure how."	Direct mail to census, ads is quarterly coupon book, ad on their van, newspaper articles, brochures, visit senior citizen centers monthly	"What works in a big city doesn't work here. The best outreach here is word of mouth." Largest source of referrals is social services. Have some difficulty getting senior citizens to apply because of 'pride.' Also have trouble getting subsidized housing occupants to apply because benefit is low.
'Empowerment services' provides case management to people with various needs.	4	Program manager, certifier, in-take worker, and receptionist. Also supported by agency's case managers.	No	Front-line workers	"EUSP is a very good complement to MEAP. MEAP is to reduce the cost of heating, but EUSP deals more comprehensively with energy needs."	Case managers do the majority of application taking. They then send applications to them to centrally review and verify.	"Case managers do outreach. If we had to depend solely on the program to fund outreach, we couldn't do much."	

Agency Description	# EUSP Staff	Staff Description	Sufficient admin funding?	Greatest Admin Need	MEAP/EUSP Coordination	Application Processing	Current Outreach Efforts	Outreach that Works Best
Responsible for moving low income persons toward self-sufficiency through variety of grants	25	2 admin, 2 receptionists, 2 communications, 7 data entry, 3 pending unit, 3 vendor monitoring, 1 control unit	No	Application taking (subsidized heavily now by other programs)	MEAP and arrearage forgiveness if available are key in crisis situations.	Everybody certified eligible in previous year gets mail-out application. The rest (about 2/3) apply in person at in-take center.	Major effort for them—report constant outreach such as going on-site to senior housing developments. Also work closely with utility. Do energy expos.	Working with partners such as Commission on Aging, churches
State social service agency.	10	5 interviewers, 3 data clerks, assistant, program director	No	Needs two more staff positions, especially for satellite offices.	Would like to be able to certify program at once, but have to do MEAP, EUSP and EUSP arrearage separately. When you deny, you deny three times, sending three different letters.	Mail is 60%, walk-ins 40%. Mail apps to everyone in program last year. Mail apps sent on a staggered basis through January.	Visit apartment buildings, senior citizens, hold application fairs (lots of work and most applications taken are incomplete. Also create chaotic office because of backlog and high volume of customer calls)	Utility and other program referrals, visiting apartment buildings
Social service agency also has adult daycare, child support, and family investment.	2.5	Program manager, interviewer, 1/2 time clerk	Yes	They have enough admin support because they get support from other parts of their agency.	"They have the same applications, same guidelines. When they wrote EUSP they really tried to bring it in-line with MEAP so it was as close as possible to avoid customer confusion."	Mail applications to prior year applicants in July, which results in real backlog. They don't want to send them out on rolling basis because this results in customer calls wondering why they haven't received their app yet. They see brand new customers in-person, "it's easier to get info from them when you meet with them face-to-face."	Visit senior citizens, apartment complexes, adult day care, brochures, newspaper ads	Applications have increased 50% and they think this is due to, "a combination of utilities doing more referrals and our established network of different strategies to reach new people."

Agency Description	# EUSP Staff	Staff Description	Sufficient admin funding?	Greatest Admin Need	MEAP/EUSP Coordination	Application Processing	Current Outreach Efforts	Outreach that Works Best
"We are where people go when they have no where else to go." They do MEAP/EUSP and the fuel fund as well as financial crisis and eviction help.	3	Herself who wears multiple hats and 3 case workers who also work on other programs	No	"We could use more staff. It is hard for us."	"We use MEAP to handle emergencies and EUSP for on-going bill assistance."	Prior year applicants receive mail applications. They do not stagger because people panic when they hear their neighbor got an application.	Newspaper articles, presence at local events, partner with office of aging, HUD	Agency referrals
Part of social services. In same building as fuel fund and the help center (food bank, clothes, etc).	4.33	Program manager, 2 in-take workers, seasonal worker 4 months of heating season	No	"In the past we've done okay, but we're feeling the pinch now. Our caseload has increased, applications are up, so we're busier." They need more staff (about another half time position)	"MEAP/EUSP coordination is excellent. We can do anything with the combination of them."	Prior year applicants receive mail applications. They do all emergencies in-person because of timing.	Traditional outreach methods, but mainly build relationships with agencies.	Good referral system with other agencies.
Social services state agency	3	Director, 2 case managers	No	"We really need a file worker, but we are not able to get one because of the budget."	Explains that one program is to help them run their lights and the other is to help them with heating and kicks is when they need heat.	They do combination of mail, walk-ins, and on-site applications	They mostly target the aging and disabled. "We do a great deal of outreach to them because they are so vulnerable."	It's not hard to get the word out because it's a small town in a very poor county. Often need to go to them because, "they're too proud to come in."

Agency Description	# EUSP Staff	Staff Description	Sufficient admin funding?	Greatest Admin Need	MEAP/EUSP Coordination	Application Processing	Current Outreach Efforts	Outreach that Works Best
Department of Social Services	5 staff, 4.6 FTEs	Supervisor, 2.6 intake workers, 1 admin specialist	No	When I add up the costs to run the program minus the in-kind services it is always more than the 10 percent allowed so we have to subsidize EUSP administration.	Most of the clients that just get MEAP that are not eligible, a family member is paying the bill.	Most applications are mail. Also take applications at outreach sites. Walk-ins are generally emergencies—"a small but time consuming percentage."	Work with other programs to provide one-stop-shopping outreach.	Outreach sites.
Administer many different assistance programs	5.5	Program manager 3 full-time and 3 part-time front line workers	No			In-person interview system. "We tried to do mail outs, but we found we were not able to do the counseling we wanted to." they have seen decrease in terminations because of interviews.	Linda is on medical leave but should be back 9/1.	"People were not receptive to EUSP because they didn't know what it was or understand it. Our EUSP participation has really grown because of the one-on-one interviews."
Administer fuel fund, food pantry and other social programs as well as MEAP/EUSP	5	3 in-take, 2 approval and certifiers	No	They make the points that their application numbers have increased 100%, but they have had no increase in administrative funding	"It was total chaos at first, but it is now working well."	They do most of them by mail because they do not have time to see people in-person. In-person interviews are normally for disconnects and self-employed	Flyers, visit sites such as senior citizens, work with churches and other agencies	On-site applications

Agency Description	# EUSP Staff	Staff Description	Sufficient admin funding?	Greatest Admin Need	MEAP/EUSP Coordination	Application Processing	Current Outreach Efforts	Outreach that Works Best
DSS. One small part of energy assistance. OHEP unit co-mingles with rental assistance.	4 full-time, 2.5 temps	Administrator, program manager, program specialist, 2 data entry clerks, case workers	No	OHEP heavily subsidized by other programs—many staff such as administrator and case workers not paid by OHEP.	Seniors really rely on this program so much. Seniors don't have to choose between utilities and prescriptions or eating. The high rents in this county make it really evident. Helps people to maintain housing.	Most applications by via the mail. Applicants may get the application through the mail. The may come by and pick one up. Don't normally see people face-to-face because there is not enough staff.	The development of the expo is a yearlong activity. They include the utilities in the planning. The range of activities include meetings, coordinating the mailings, coordinating the volunteers.	utilities and other government social work agencies, and word-of-mouth
Small agency	2	Both front line	No	We are not able to do much. We only have 2 employees and it takes them full time to run the office. We used to have a ½ time outreach person but we had to let them go because of lack of funds."	No issues.		They do very little because of lack of funds. "It's hard to get out, but we do try to visit senior citizens or apartment complexes 1–2 times a month. But there's not a lot of outreach we can do. It takes a lot of effort to do major outreach events."	Not sure

Agency Description	# EUSP Staff	Staff Description	Sufficient admin funding?	Greatest Admin Need	MEAP/EUSP Coordination	Application Processing	Current Outreach Efforts	Outreach that Works Best
State social service agency.	10.5	Receptionist s, call router, case workers, 4 interviewers, full-time certifier, clerical and program director	1		Thinks this is even better with new application that automatically enrolls them in both unless they chose not to be.	Mail is 60%. Walk-in 30%, and fairs/expos 10%.	Direct mail, expos, community based events, senior centers	Word of mouth, social worker, utility company. Don't think expos are cost-effective
State social service agency.	2	Case managers	No	"We really need an in-take worker."	Works well.	Mail. They discourage walk-ins because they do not have the staffing to do them.	Flyers, posters	Word of mouth - "it's not an emergency program, but some people just wont' come in until there is an emergency."
"We have info on other programs so we are active in refers and trying to get them on the right track. We also try to provide budget counseling."	5	3 in-take workers, 1 certifier, program manager	No	"Have very limited staff because of the budget."	Complete	They are trying to see people in person except those who can't come in. Mail applications did not work well for them because so much information was missing from applications.	Billboards, TV news stories, radio PSAs, cable ads. Speaking engagements, brochures, catholic outreach, Hispanic orgs, HUD	Education. She would like education on the radio during the day when people listen.

Agency Description	# EUSP Staff	Staff Description	Sufficient admin funding?	Greatest Admin Need	MEAP/EUSP Coordination	Application Processing	Current Outreach Efforts	Outreach that Works Best
Weatherization as well as EUSP/MEAP	4	Program manager and 3 front line workers	No	Another staff person	"It is easy for the customer that they can do it all at one time."	Mail and walk-ins.	Community based meeting annually where tells other agencies/organizations, PSAs on radios, newspaper, and utility newsletters. Utility leaves card about program at disconnect.	Community-based support. "We have rally good support from all the community based organizations, but we've worked hard to build this up over 25 years."
They work with other programs such as family support.	3	In-take, outreach, certification	No	Another worker	Works fine.	Combination of mail and in-person	Work with other programs, referrals	
One-stop shop	3	1 certifier, 2 workers	No	" It's ridiculous for them to ask us to do more outreach. We don't have time or the manpower to do it."	If they have electric heat, it is hard to figure out their budget billing amount until they know the amount of the MEAP grant for the year.	Combination of mail and in-person	Direct mail, target elderly	

**Table A.2**  
**LAA Interview Results—EUSP Functioning and Impacts**

Utilities Interactions	OHEP Interactions	OHEP System	Training Needs	What Is Working Best	Most in Need of Improvement	Client Ability to Pay Energy Bills	Client Lives	Other
Allegheny power. Utility staff is helpful, but experience problems with call center. Call center employees frequently do not know about the program. They really like that utility bills give EUSP credit monthly - "it really helps the client see and understand how budget billing works."	"The staff is very helpful. In the past I would not have thought of calling them directly, but now I feel I can."	Slow, but recognizes they are working on it and trying to improve it	No training needs identified.	"The program makes people know they have to pay their bill every month and keeps them in-line with their bill instead of having a large bill in the end they can't handle."	Arrearage assistance. Not fair that they changed the rules. Forgave one customer's arrearage of \$23 in year 1 and now this customer can't be helped. Should be minimal forgiveness level.	"I believe budget billing helps customers keep up with their bills and pay them on a monthly basis."	Clients always tell her how the program has really helped them and improved their living conditions. They'll say, "I couldn't buy my medicine without your help."	Benefits matrix. No customer should have no balance themselves.
BG&E. Line workers have close relationship with BG&E and there's no customer confusion in reading their bill because they recently redid it.	"OHEP staff is responsive and supportive." Monthly conference calls are a positive development.	They have to do ROMA-reporting and the system cannot help them do this. They have to track it separately	Would like the program better integrated with other programs at the state-level.	The program is very important for their customers to be able to meet their energy needs.	"We don't have the capability to talk about energy usage and conservation or budget counseling. This is a piece of the puzzle that is missing."	"Budget billing has good objectives, but our customers are really stretched on where their dollars go, especially with rents so high here. Sometimes they pay to keep a roof over their head to then have their utilities shut-off."	It's important in the long-term to work with customers to increase their income so they can survive.	Would like to see utility bill be similar to section 8 housing where customer pays a % based on income.

Utilities Interactions	OHEP Interactions	OHEP System	Training Needs	What Is Working Best	Most in Need of Improvement	Client Ability to Pay Energy Bills	Client Lives	Other
Work closely with utility in outreach efforts. Utility also provides them education materials.	Would like more direction for LAAs to administer the program consistently	Issues with data entry—difficulty. Also hardware issues that are slow. Poor reporting capabilities	Updated manual on more regular basis	Is need for program	Arrearage forgiveness. Money goes too fast—distribution of money needs to be revisited. Concerned about equity. Program needs to not encourage people to not pay their bills though such as having customer pay some percent.	Education about budget billing is key to enable clients to understand it. Need to make it important to clients to pay their bills on-time.	Impact on client lives is less because programs don't come together to help them, but make customer go from program to program	EUSP weatherization is not working
BG&E. "Good days and bad days." Internet site helped a great deal.	Good working relationship, but sometimes OHEP isn't able to solve problem to their satisfaction. Slow to move with things such as new computers. Conference calls are positive, but would like more info up-front about things OHEP is considering	Slow and erratic. "We waste too much time with the system." Software upgrade needed.	Computer documentation and data entry into system		Education needs to be done on how customers can reduce their bills. But they would need to hire a contractor to prepared materials. Also need to better educate people about budget billing (would like focus group with customers to see what they understand and what they need help with.)	Favors budget billing because it amortizes the bill and takes away sticker shock. 80% of the people live with budget billing and are happy about it, 20% have issues.	Issues are real to the client. Mixed as to why they can't make the payment. There just isn't enough money.	

Utilities Interactions	OHEP Interactions	OHEP System	Training Needs	What Is Working Best	Most in Need of Improvement	Client Ability to Pay Energy Bills	Client Lives	Other
Connectiv. Finds them slow with customer consumption info and there is a huge problem with customers not understanding their bill because the first page shows a zero balance due on the bill. Choptank electric. "They administer the program how it was designed to work."	"They are always there when you need them...the prior directors never communicated with us and we never knew what was going on with the program statewide. The new director is correcting this."	"As long as the system stays up we can get applications entered, but it does take awhile to get through them." The old system had better reporting capabilities.	Nothing to suggest		Utilities administering the program differently and not as designed	Believes budget billing helps, but not when utilities do not administer it correctly.		Believes that some utilities are not implementing the program as designed and do not terminate customers from the program if they don't meet budget bill
BG&E. "They've done tons to be cooperative and helpful. Their interactive website is great." BG&E bill was confusing to customers, but they corrected it. Allegheny power. They have much less contact with them - "I would like them to get involved more."	"Wonderful. Monthly conference calls have helped a lot and make us feel part of one thing."	Okay, but slow		It is right that EUSP only uses the last month's income for eligible because even one month's loss takes time to recover from. "It gives them a little help while they try to recuperate."	Arrearage assistance for smaller counties. Would like it divided among counties and a minimum level established such as \$100 where they could then get it again.	"There are many people who are using the program to maintain stable bills they can pay and are then paying their bills orderly. The depend on bill assistance to manage their electric bills."	"I'm grateful the program exists. The money really adds up in being able to help our clients."	They area always asked why their EUSP numbers aren't as high as MEAP

Utilities Interactions	OHEP Interactions	OHEP System	Training Needs	What Is Working Best	Most in Need of Improvement	Client Ability to Pay Energy Bills	Client Lives	Other
Connectiv. "Good relationship and they don't shut people off when we commit funds. They are slow with consumption info, but are working on being quicker. There is considerable customer bill confusion because of no payment due showing on the bill."	"We've graduated to the level that we're working very well together."	"It is very, very slow, but it works okay. It gets us what we need."	They feel that they don't have the same resources available to them as agencies in or close to Baltimore city.	Arrearage assistance. "It's been great being able to have some people come out with a clean slate and being able to explain to them if they keep making their payment they won't be in the hole again."	State assistance that addresses rural county needs as well as urban	"I think budget billing does help bill payment behavior and extends people's money. Of course there are people who are truly interested in managing their money better and the program has the best results for these people. There are others who will always stay in the hole."	"This is a good program that has solved a lot of problems."	
Connectiv. Doesn't like that they let them build up large arrearages. They are having huge problems with customer bills. "The bill is so misleading and people are kicked off of the program because of this." Difficulty getting consumption information sometimes. Choptank cooperative - they are quick to respond to them.	"[The new director] is a real breath of fresh air. She's the best director. Before her the directors really struggled." Positive comments about all of the state OHEP staff.			"Last year was good, but this year will be even better because of improved OHEP leadership. They are aware of issues and are trying to help, but also not step on any toes."	They would like to be able to get consumption info on-line.	The problem with budget billing is with seniors who can't afford the amount they are to pay. They try to educate them about ways to get their bills down. Many seniors turn down EUSP because they don't want budget billing.	"It's a wonderful program. Lots of people wouldn't have their electric on without the program or be able to get their electricity honestly."	Seniors with very low electric consumption get hardly anything and she thinks that's not fair

Utilities Interactions	OHEP Interactions	OHEP System	Training Needs	What Is Working Best	Most in Need of Improvement	Client Ability to Pay Energy Bills	Client Lives	Other
<p>Good working relationship and do outreach together. Hard that utility does not work with EUSP customers on a payment plan when they experience hardships, utility considers EUSP a 'payment plan.'</p>	<p>"People in state office are pretty good. They have their first really good administrator. They are very helpful when we hit a case or a problem. They really supported us last year when we had staff out sick. OHEP is so short-staffed." Monthly teleconferences are a big help.</p>	<p>"First year was a disaster. This year the system is slower than last year. One of the biggest issues is that there is no manual for the databases. Different coordinators have found different ways of using the system, but the info doesn't get shared."</p>	<p>Thinks budget shortfalls that stopped training. These are sorely missed. Would like annual update training.</p>		<p>She thinks she has about 500 frequent flyers and she argues that they are the ones who keep coming in with arrearages. She distinguishes between clients who have had been paying something or have been had some catastrophe and clients who have had an arrearage payment and are back again.</p>	<p>There are always going to be people with termination notices who don't have enough money. There has to be some way to balance people who need the help and those who are just playing the system. EUSP is good because it makes it harder to play the system because of the budget billing. The arrearage part is a big way to play the system.</p>		
<p>Allegheny power. Outstanding relationship. The call center isn't always good, but they have to deal with high turnover and multiple states.</p>	<p>"Extremely good. There were problems with previous directors, but that's been straighten out now. "Monthly teleconferences are fantastic. We are able to get on the same page and not travel. The communication is better now than it ever has been."</p>	<p>"It's been through tough times, but they're always working to improve it."</p>	<p>Re-instate counseling classes that train them to counsel clients on energy conservation and budgeting to make their money stretch.</p>		<p>"I am a firm believer that if we are going to make them become more self-sufficient, we shouldn't forgive arrearages unless they've made some payment in the last 90 days. We don't help them if we let it build up. We must make people more accountable in the arrearage program."</p>	<p>"Budget billing helps them learn how to pay their bills better."</p>		

Utilities Interactions	OHEP Interactions	OHEP System	Training Needs	What Is Working Best	Most in Need of Improvement	Client Ability to Pay Energy Bills	Client Lives	Other
Connectiv and BG&E. They use BG&E's website almost exclusively now for program info. It has been big help to them and they find it accurate. In the past they've had to deal with untrained utility representatives.	"They are tremendous, but they are way understaffed. " Monthly conference calls are helping "to get the agencies all on the same page."	Slow and needs greater reporting capabilities.	They have had OHEP come twice to train their staff on new procedures and would like to continue this.	"The program was designed to help people on a monthly basis with their electric bills and its working."	"OHEP needs more funds and administrative staff."	"We are trying to re-educate them they need to pay their bill each month. For some it works, for some the amount is still too high for them to pay."	"Client is getting assistance that makes a serious difference, especially seniors."	
Connectiv. Customer bill causes confusion because it shows zero due.	"Over the last several years communication with OHEP decreased, but they have really made an effort to increase communication again in the last six months. The teleconference each month is very helpful."	Acceptable				"Customers are not crazy about budget billing and we had a hard time getting people to sign up for it, especially the elderly." She		
Good—coordinate together on outreach and emergency cases as well as EUSP.	Relations have improved	The state system is slow and time consuming. On the certification and denial end they could really improve it. You have to certify or deny for each program.	Need training, especially on system	Working much better	They think that clients probably need to contribute to a payment on arrearages. How	Caseworkers say that they get return calls from about 1/3 of the clients with respect to budget billing. Customers don't like it and don't understand it. Budget billing can sometimes be very difficult with seniors on budget billing.	Seniors really rely on this program so much. Seniors don't have to choose between utilities and prescriptions or eating. The high rents in this county make it really evident. Helps people to maintain housing.	They also need some leeway on income and verification with pay stubs.

Utilities Interactions	OHEP Interactions	OHEP System	Training Needs	What Is Working Best	Most in Need of Improvement	Client Ability to Pay Energy Bills	Client Lives	Other
<p>"Marvelous working relationship." Utilities provide financial assistance to do expos. Bills confusing to customers though - "I work in the program and I don't understand it."</p>	<p>Relationship has improved, but still thinks need to get more input from LAAs before move.</p>	<p>Disappointed with system, doesn't give them statistics and needed functions (e.g., allow them to assign cases). Severe lack of management reports and server capacity.</p>	<p>Experienced staff trains less experienced staff, but no formal training.</p>		<p>The arrearage money has to change. "1.5 million just doesn't 'cut it." Benefits are distributed disproportionate to poverty population.</p>	<p>In spirit supports the ideal of helping people stay current by budgeting. When person misses two payments they can get kicked out. People are going to have hardships. People have a finite amount of income. Budget billing works for some and not for others.</p>	<p>Need to do more here. Some kind of financial counseling and education is needed and will need to be mandatory.</p>	<p>Apps actually went down from PY2003 to PY2004. Unemployment in county dropped.</p>
<p>Connectiv and Choptank electric. They would really like consumption info to be available electronically to speed up the application processing. Connectiv is not user-friendly (no local walk-in offices) and bill causes customer confusion.</p>	<p>"When we need them, they're there."</p>	<p>"They are always working on it trying to make things better."</p>	<p>They would like to see OHEP do more outreach. They would like them to coordinate local fairs, statewide newspaper ads and television spots.</p>	<p>"The program overall works well and helps the people who need it the most."</p>	<p>Arrearage assistance. "Each jurisdiction should have their own pot of money to use as they need it instead of a mad rush for it." feels the program year 2005 was not an improvement.</p>	<p>"Budget billing is a good idea because it helps people learn they have to be responsible."</p>	<p>"The program really helps them get over the hump. It's hard some months to feed 2 kids, pay your rent and heat your house."</p>	<p>Would like to see paperwork required of client streamlined.</p>

Utilities Interactions	OHEP Interactions	OHEP System	Training Needs	What Is Working Best	Most in Need of Improvement	Client Ability to Pay Energy Bills	Client Lives	Other
<p>"We have an excellent relationship with the utilities. We call them anytime and beg favors. We've never had any problems. " Connectiv customer bill causing confusion. They would also like to be able to receive consumption data quicker.</p>	<p>"We can call them anytime. You couldn't ask for a better director. She is very supportive and open to comments."</p>	<p>Slow, but it works</p>	<p>Would like the PSC or OHEP to run statewide outreach campaign and purchase bulk marketing materials.</p>	<p>"It gets people on a budget and help them each month."</p>	<p>Arrearage assistance. "They should've been forced to come in so we can explain what their responsibilities were. We didn't look at it carefully enough. We paid to clean up their debt and now they have it again. We should've explained what they have to do to keep it clean."</p>	<p>"Budget billing helps people learn how to pay their bills, but it really needs time with in-take staff to work with them about how to manage their money and really explain budget billing. This is hard to do with such limited staff."</p>	<p>"We get thank you cards from people who get assistance and would have to do without food or medicine if they didn't have the program. They really need this to supplement their income because it's so limited."</p>	<p>Program should consider net, not gross pay.</p>
<p>"Utilities better understand the program now and are working better with us."</p>	<p>"Good contact, they are very open. They have a new director and she makes us feel very welcome. "</p>		<p>"Agencies all do things differently and it would help if OHEP facilitated us knowing how things are run across the state so we're all on the same page."</p>	<p>"It's going well and works well that the payments to utilities are done through the state.</p>	<p>"Case management should be part of this program, but there's no money there for this. There should be energy management classes to train individuals."</p>	<p>"People want the benefit, but not budget billing. We explain to them that this is not a give away, but they have to take responsibility for their bills. Very few people actually end up not wanting to stay on budget billing. EUSP has come to the point people are learning how to pay their bill."</p>	<p>"EUSP really helps people to come to ground zero with their electric bills and then move forward."</p>	
<p>Fine. They work with eastern utilities, Choptank, and Connectiv. They have a day each year where the utility rep is there and they invite customers to come in and discuss there bill to better understand it.</p>	<p>"Pretty good. They let me know what's going on."</p>	<p>Would like to be able to do more reports, but recognizes they are trying to improve the system gradually.</p>		<p>That the program provides monthly assistance instead of a lump sum.</p>	<p>Arrearage retirement. People really game the system and build up high arrearages to then get this. Also some people don't understand they can only get it once so then are stuck with the high arrearage they built up.</p>	<p>"Some will pay their bills and some won't. Think it's good to force them to do it monthly."</p>	<p>"It makes a difference."</p>	

Utilities Interactions	OHEP Interactions	OHEP System	Training Needs	What Is Working Best	Most in Need of Improvement	Client Ability to Pay Energy Bills	Client Lives	Other
One-stop shop	3	1 certifier, 2 workers	No	" It's ridiculous for them to ask us to do more outreach. We don't have time or the manpower to do it."	If they have electric heat it is hard to figure out their budget billing amount until they know the amount of the MEAP grant for the year.	Combination of mail and in-person	Direct mail, target elderly	

**Table A.3**  
**Utility Interview Results—EUSP Administration and Program Functioning**

EUSP administration			Program Functioning			
<i>Application of EUSP Benefit</i>	<i>Staff Description</i>	<i>Outreach Efforts</i>	<i>LAA Interactions</i>	<i>OHEP Interactions</i>	<i>What Is Working Best</i>	<i>Most in Need of Improvement</i>
"We operate EUSP same as USPP. We follow the same guidelines that are given to us from COMAR." They get a notice of the amount pledged and then put them on a payment plan.	All utility reps in their call center (15) and office (4) are familiar with the program so that they can refer people to it.	Distribute brochures to people who are disconnected and call/come in with a problem paying their bills. "We do a great deal of outreach because the local OHEP office doesn't have funds to do outreach." Prior to the 3/31 deadline, they make sure to tell everyone in danger of a disconnect about EUSP.	They work closely together and they pay for a seasonal worker for them 6 months of the year. "It's a real collaborative process. We're a partnership and work together and help each other in the process."	"We have a good relation with the state as well. Program has matured in the past 4-5 years." They receive the data electronically from the state and say most of the account numbers (80%) are correct.	They like budget billing and thinks it needs to stay.	The most confusing issue for their customers was the arrearage and they didn't understand that they could just get it once." LAAs also need to do more education on budget billing.

EUSP administration			Program Functioning			
<i>Application of EUSP Benefit</i>	<i>Staff Description</i>	<i>Outreach Efforts</i>	<i>LAA Interactions</i>	<i>OHEP Interactions</i>	<i>What Is Working Best</i>	<i>Most in Need of Improvement</i>
Receive up to 3 different paper copies of payment information for the programs (MEAP, EUSP budget billing, EUSP arrearage assistance). Have added website for LAAs to process app and make commitment - they will then hold off on collection if MEAP/EUSP commitment. "The website has greatly improved the quality of the data we're getting such as decreased wrong account numbers. We've also decreased our administrative time." Show whole EUSP credit on the account on monthly bills - are very opposed to making changes to their billing system to show 1/12th credit a month.	5 staff work with the EUSP and MEAP programs. One staff member specifically does outreach efforts in their counties.	Program's outreach efforts are virtually non-existent in their service territory. Feels they are leading all of the technical and outreach efforts themselves. They say they don't feel they can continue to do this though as they don't have the staff to run the program for the state.	They feel their LAAs are under-serving their low-income populations and that the low-income populations in these counties are growing.	Believes OHEP staff is dedicated, but they focus too much on the city of Baltimore.	"The program is flowing smoothly. There are not significant problems, but we do think improvements need to be made to better serve our low-income customers."	It would be much better if they could get consolidated payment information and if the payment information and payment were provided electronically.

EUSP administration			Program Functioning			
<i>Application of EUSP Benefit</i>	<i>Staff Description</i>	<i>Outreach Efforts</i>	<i>LAA Interactions</i>	<i>OHEP Interactions</i>	<i>What Is Working Best</i>	<i>Most in Need of Improvement</i>
<p>They are receiving paper copies from OHEP because of problem on their end. "When we get our benefit we have a bucket where we hold it and then dole it out in 1/12ths. We are the only ones who provide the benefit the right way." Agencies contact them and make a pledge, however they do not protect the account for EUSP as they do for MEAP they said this is because EUSP is not a crisis program. They will protect the account though if they receive the arrearage assistance component.</p>	<p>3 staff and call center are involved in program. "Customer call reps have to be on top of the program.."</p>	<p>"Reps are our #1 party out there doing referrals and education."</p>	<p>In general, have very minimal issues in working with the agencies. "We have a co-worker atmosphere with local agencies." Their number one issue is they think LAAs often don't process enough customer applications and they wonder what sort of guidelines are given to LAAs regarding application goals.</p>	<p>"They are willing to be responsive, but they are so overwhelmed and have limited resources." They think information about the program should come from OHEP so the message is more consistent. They would like regular communication such as an annual letter saying the program is off to another year and with the updated application. They also mentioned that it would be helpful for them to be invited to meetings they have with the LAAs.</p>	<p>Much improved OHEP leadership</p>	<p>There is customer confusion about what shows up on their bill because LAAs tell them their total benefit amount and don't explain to them that it is an average bill payment plan and that amount is applied to their electric bill over 12 months.</p>

## **APPENDIX B: DEMOGRAPHIC ANALYSIS RESULTS**

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This appendix presents detailed results of the demographic analysis based on program year 2004 database and Census 2000 files. We have organized this discussion around two broad categories:

- Percent of eligible population served
- Whom the program is serving.

### **B.1 PERCENT OF ELIGIBLE POPULATION SERVED**

EUSP is designed to help low-income electric customers reduce and manage their electric utility costs. Therefore, it is important to assess EUSP's performance in terms of the percent of the eligible low-income population the program is serving. Prior to the discussion of percent of eligible population served, it is important to note a few factors. First, the denominator used in determining the percent of eligible households served is based on 2000 Census information of the number of households that are eligible for EUSP based on income (at or below 150% of the federal poverty level). This number likely over-estimates the eligible low-income population because there are other criteria necessary for a household to be eligible to receive EUSP such as an applicant having an electric account in his/her name.

Second, while in theory it is nice to say a program will serve 100% of its eligible population, it is important to consider what percent of the eligible population it is realistic to serve. Research with low-income households conducted for the Wisconsin Home Energy Assistance Program (LIHEAP) have shown that even when a household knows about the program, a household may choose to not participate in the program for various reasons. Some identified participation obstacles the program can and should address include ease and accessibility of applying for the program. Others are more intangible obstacles that are harder to address such as a household not wanting to participate in what they view as "welfare."<sup>31</sup> LAAs reported in interviews that this is a particularly difficult barrier to overcome for elderly customers. EUSP participation obstacles are furthered as LAAs report a percent of applicants that chose not to participate in EUSP because of the budget billing component. The EUSP evaluation activities include a customer survey with eligible non-participating low-income households to be conducted in the later part of 2005. This survey will provide better insight into why households do not participate in EUSP, how the program can address participation barriers, and what a realistic percent of eligible population served is.

Furthermore, this number should be viewed in context of the percent of eligible population served by other similar programs in similar states. For example, LIHEAP, the federally-funded heating assistance program, has the same income eligibility guidelines as EUSP and relies upon the same local delivery infrastructure, but has been in operation for over 30 years. LIHEAP provides heating assistance to 16.9 percent of the eligible population in Delaware, 24.2 percent in the District of Columbia, 19.3 percent in New Jersey, 14.1 percent in Virginia, and 22.6 percent in Pennsylvania.<sup>32</sup>

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<sup>31</sup> Year 1 Wisconsin Focus on Energy, Low Income Energy Program Evaluation Report, PA Consulting Group, Madison, WI, October 2002.

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## B.2 WHOM THE PROGRAM IS SERVING

A second key issue in looking at the percent of the eligible population served is how equitably the program benefits are being distributed across the state. The percent of the eligible population that received EUSP in FFY2004 differs significantly by county—ranging from a high of 70.5% in Garrett County to a low of 14.5% in Montgomery County. While this fact is well known to program managers, this large variation begs the question. “Why do some counties serve a greater percent of the eligible population than others?” The discussion of LAA practices and resources discussed in Chapter 2 are an important part of the piece of the puzzle. A second piece is the different demographics of the counties, which also explain part of this variation.

Using the 2000 Census Data, evaluators looked into economic and demographic indicators hypothesized to be factors in program participation. Indicators included in this analysis were:

- Percent of households<sup>33</sup> below 150% FPL.
- Percent of children 5 and younger below 150% FPL.
- Percent of elderly 65 and older below 150% FPL.
- Median household income.
- Percent of occupied housing units in poverty with more than 1 occupant per room.
- Percent of occupied housing units in poverty with no plumbing facilities.
- Percent of occupied housing units in poverty with no telephone.
- Percent of households that are in poverty and renter occupied.
- Percent of household families below 150% FPL with one householder (single-parent family, either male or female).
- Percent of population below 185% FPL that receives SSI and/or other public assistance income.
- Percent of population over 18 years of age below 185% FPL with no high school degree.
- Rural and urban status.<sup>34</sup>

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Footnote: Mark Wolfe, "National Energy Assistance Directors' Association Issue Brief The Low-Income Home Energy Assistance Program Providing Heating and Cooling Assistance to Low-Income Families," Table 7 Total Eligible Households Receiving 2003 LIHEAP Heating Assistance. [http://www.neada.org/LIHEAP\\_Issue\\_Brief\\_01.pdf](http://www.neada.org/LIHEAP_Issue_Brief_01.pdf)

<sup>33</sup> Households, per census definition, “includes all of the people who occupy a housing unit [which is defined as] a house, an apartment, a mobile home, a group of rooms, or a single room occupied...as separate living quarters” (“Definitions of Subject Characteristics”, U.S. Census Bureau, Census 2000). It does not appear this distinguishes those that include extended family.

<sup>34</sup> For the purpose of this analysis, a county was determined if it was rural or urban based on the percent of households present in rural or urban areas. For example, if the majority (greater than 55%)

Table B.1 provides a comparison of counties by these select economic indicators. Counties that are 'less well off' within each category are highlighted for easy reference. We define 'less well off' as within either the top or bottom quartile for each state, depending on the indicator. For example, counties within the bottom quartile for median income are highlighted, as are counties within the top quartile for percent of households with no telephone.

While not completely consistent, review of the county comparison indicates that counties that serve a greater percent of the eligible population tend to be less well off than those counties that do not. For example, Dorchester ranks second highest in the percent of the eligible population served; per Census data and the system defined above, and they are also one of the least well off of all counties. Baltimore City is an exception. Baltimore City ranks very low in the percent of households served while at the same time being the least well off area in Maryland.

Some demographic and economic indicators are more prevalent in those counties that serve a higher percent of the eligible population than others. A correlation of the percent of eligible households served by economic and social indicators reveal that counties that serve a higher percent of the eligible population are more likely to have a greater percent (but not number) of households eligible for services, households with vulnerable members (children 5 and younger and elderly 65 and older), have more than 1 occupant per room, and report a median income. Being in poverty without a telephone, being in a single parent family, and residing in a rural area were also significantly strong indicators<sup>35</sup>.

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of households were in rural areas, then the county itself would be considered rural. Counties that have a fairly even split are considered rural and urban.

<sup>35</sup> Correlations are significant at the .01 level (two-tailed) and are as follows (in descending order).

Percent of households with elderly under 150% FPL: .718

Households under 150% FPL: .680

Median income: -.647

Percent of households with children under 150% FPL: .616

Percent of single-parent family households: .578

Percent of households in poverty without a telephone: .544

Rural households: .527

**Table B.1  
Comparison of Counties by Select Economic Indicators**

County	% of eligible hhs served in FFY2004	% of hhs <150% FPL	percent children <150% FPL	percent elderly <150% FPL	median hh income	% of occupied hsng units in poverty with greater than 1 occupant per room	% of occupied hsng units in poverty with no plumbing facilities	% of occupied hsng units in poverty with no phone	% of hhs that are renter occupied and below poverty level	% of hh families under 150% FPL with one householder	% of pop <185% FPL that receives SSI and/or other public assistance income	% of pop >18 and <185% FPL without hs degree	Rural/Urban
Garrett	70.5%	27.6%	36.3%	28.5%	32,238	1.9%	1.7%	6.0%	6.6%	5.3%	6.3%	32.6%	R
Dorchester	66.5%	24.5%	33.2%	25.6%	34,077	2.5%	1.9%	11.7%	8.4%	8.4%	7.7%	42.8%	R
Kent	56.7%	19.8%	32.2%	18.1%	39,869	6.8%	1.9%	9.8%	6.2%	5.6%	4.2%	36.9%	R
Cecil	56.2%	12.9%	20.5%	15.9%	50,510	5.1%	1.1%	11.2%	4.4%	4.1%	5.8%	34.8%	Split
Caroline	53.9%	22.0%	27.4%	26.8%	38,832	2.6%	2.2%	8.8%	6.1%	6.3%	6.6%	43.5%	R
Allegany	50.4%	27.0%	38.5%	24.7%	30,821	1.8%	1.6%	7.4%	10.3%	5.0%	7.4%	29.1%	U
Harford	49.3%	9.4%	13.5%	12.6%	57,234	5.1%	1.6%	9.1%	3.3%	2.8%	5.4%	32.9%	U
Somerset	40.8%	31.8%	50.9%	30.8%	29,903	5.6%	2.6%	7.1%	12.9%	8.7%	7.4%	44.9%	R
Carroll	39.8%	8.7%	9.4%	13.1%	60,021	4.5%	2.1%	4.9%	2.3%	2.2%	5.9%	32.8%	U
Talbot	39.6%	16.4%	20.2%	16.7%	43,532	2.5%	1.8%	7.4%	5.1%	3.7%	7.9%	34.7%	R
Wicomico	38.7%	21.3%	32.9%	21.3%	39,035	6.8%	0.6%	9.9%	8.7%	7.2%	6.0%	32.3%	U
Frederick	37.2%	8.8%	10.5%	12.8%	60,276	4.7%	2.1%	5.6%	2.8%	2.5%	5.1%	31.7%	U
Charles	37.1%	8.9%	11.9%	15.1%	62,199	10.1%	3.2%	8.8%	3.2%	3.5%	6.3%	38.7%	U
St. Mary	36.7%	12.2%	18.1%	16.8%	54,706	11.6%	4.7%	9.2%	3.7%	3.7%	5.4%	33.7%	R
Worcester	36.6%	17.5%	26.5%	15.9%	40,650	4.1%	0.3%	9.1%	4.7%	5.3%	5.8%	33.8%	U

**Table B.1  
Comparison of Counties by Select Economic Indicators**

County	% of eligible hhs served in FFY2004	% of hhs <150% FPL	percent children <150% FPL	percent elderly <150% FPL	median hh income	% of occupied hsng units in poverty with greater than 1 occupant per room	% of occupied hsng units in poverty with no plumbing facilities	% of occupied hsng units in poverty with no phone	% of hhs that are renter occupied and below poverty level	% of hh families under 150% FPL with one householder	% of pop <185% FPL that receives SSI and/or other public assistance income	% of pop >18 and <185% FPL without hs degree	Rural/Urban
Queen Anne	36.0%	11.9%	13.0%	15.2%	57,037	3.3%	4.5%	12.6%	3.1%	3.2%	5.9%	35.8%	R
Calvert	33.6%	8.2%	9.1%	13.3%	65,945	7.6%	0.8%	4.7%	1.7%	3.1%	5.7%	32.8%	Split
Washington	30.2%	17.9%	26.7%	21.2%	40,617	2.9%	0.7%	8.7%	7.1%	4.6%	7.0%	39.6%	U
Howard	26.9%	6.3%	7.6%	12.7%	74,167	9.2%	2.0%	1.5%	2.6%	1.9%	6.3%	26.1%	U
Baltimore	25.8%	11.9%	15.6%	13.9%	50,667	5.3%	0.7%	3.5%	4.3%	3.3%	6.5%	31.4%	U
Baltimore city	20.6%	32.8%	49.6%	32.7%	30,078	8.2%	1.5%	12.7%	17.0%	12.9%	11.7%	45.4%	U
Anne Arundel	16.2%	8.8%	12.8%	11.9%	61,768	5.8%	1.0%	5.8%	3.0%	2.9%	5.1%	33.5%	U
Prince George	14.7%	11.6%	18.0%	12.6%	55,256	15.7%	0.7%	3.6%	5.1%	4.4%	4.1%	32.7%	U
Montgomery	14.5%	8.4%	11.9%	9.7%	71,551	15.2%	1.0%	2.5%	3.4%	2.4%	4.6%	29.5%	U

*Top 25%*    *Top 25%*    *Top 25%*    *Bottom 25%*    *Top 25%*

21.4%    32.4%    22.1%    38,984    7.7%    2.1%    9.3%    6.7%    5.4%    6.7%    37.3%

County size appears to be one of the strongest factors driving the percent of eligible population served. The large counties/jurisdictions in terms of population are less likely to serve a high percentage of the population than the small counties. Counties that serve the least eligible households are those that have the largest number of eligible households. Because these counties are also urban, it is not clear if, in terms of demographic indicators, it is only the sheer volume of households or something inherent in the urban environment that is influencing the percent of households served (such as a greater prevalence of renters who may not directly pay for electric costs). Table B.2 below shows the highest servers and lowest servers, along with the number of eligible households within those counties.

With this said, Census data shows the larger counties tend to be better off in terms of the economic and social indicators, with the exception of Baltimore City.

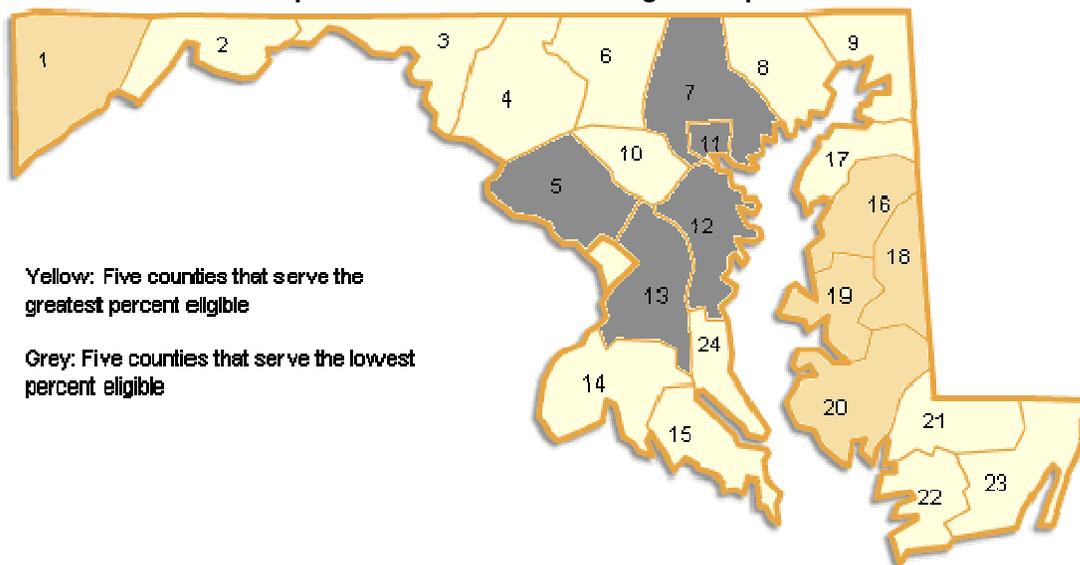
**Note:** Because Baltimore City is an anomaly, it is not included in the correlation.

**Table B.2**  
**Comparison Of Population Between Greatest And Least Served Counties**

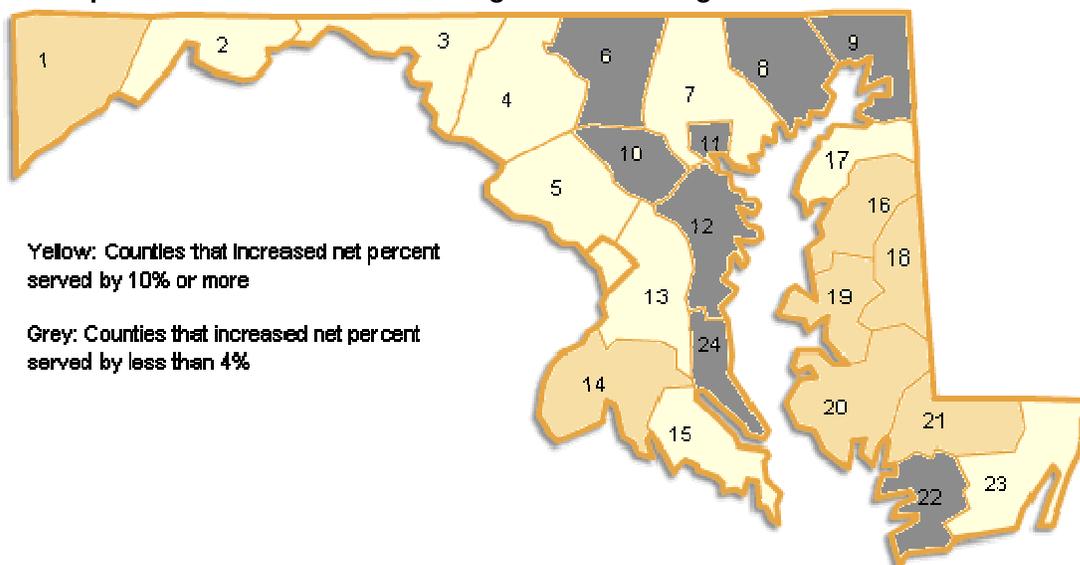
Counties that serve the highest percent of the eligible population			Counties that serve the lowest percent of the eligible population		
County	Number eligible	Percent eligible serviced	County/ Jurisdiction	Number eligible	Percent eligible serviced
Garrett	3,164	70.5%	Baltimore	35,614	26.2%
Dorchester	3,119	66.5%	Baltimore City	84,440	20.6%
Kent	1,520	56.6%	Anne Arundel	15,802	16.1%
Charles	4,028	56.2%	Prince George's	33,328	15.0%
Caroline	2,443	53.8%	Montgomery	27,280	14.5%

Figure B.1 shows the top and bottom percent of eligible population served by county, while Figure B.2 shows the top and bottom net percent change in percent eligible serviced from FFY01 to FFY04.

**Figure B.1**  
**Top and Bottom Percent of Eligible Population Served**



**Figure B.2**  
**Top and Bottom Net Percent Change in Percent Eligible Served from FFY01 to FFY04**



Legend:

1	Garrett
2	Allegany
3	Washington
4	Frederick
5	Rockville
6	Carroll
7	Baltimore
8	Harford
9	Cecil
10	Howard
11	Baltimore City
12	Ann Arundel

13	Prince George's
14	Charles
15	St. Mary's
16	Queen Anne's
17	Kent
18	Caroline
19	Talbot
20	Dorchester
21	Wicomico
22	Somerset
23	Worcester
24	Calvert

## ***APPENDIX C: RETROSPECTIVE BILL PAYMENT ASSESSMENT RESULTS***

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This appendix describes the methods and procedures used to collect and process the data for the retrospective payment analysis. The goal of the payment analysis was to construct five different measures of payment history and then to analyze the data and present the results.

The basic steps in the process were to:

- Define the measures constructed to analyze payment history.
- Develop a sampling strategy.
- Extract records for active clients from the OHEP data base.
- Process those records to build sampling frames for EUSP, Arrearage, and MEAP customers.
- Prepare and present to utilities the data request.
- Receive and process payment data from the utilities.
- Create a standardized data file and write computer code to process the payment data to create the measures.
- Analyze the resulting data.

### **C.1 DEFINE THE MEASURES**

The RFP requested five measures that define payment behavior be included in the analysis. The measures as defined by the PA/Innovologie team and as implemented in this analysis are as follows:

7. **Amount of bill payment:** The utility may receive customer payments from a variety of sources including directly from the customer, EUSP bill payment benefits, EUSP arrearage benefits, payments from family or friends, and payment from public and private agencies. The utilities were asked to identify the source of the payment to the extent possible. Payments were classified into four categories: payments received from the customer, bill payments received from EUSP, arrearage payments received from EUSP, and payments received from other sources. The bill payment in a given period was the amount of payment received from a customer in the period from the day after the billing date to the next billing date. Other types of payments were tracked separately.

As implemented, the bill payment was the amount paid during a billing cycle either by the client or the client's agent. All other payments were tracked separately. Two separate indices were constructed. The average payment per billing cycle and the average payment per billing cycle in which there was a payment.

- A) **Promptness of the bill payment:** This measure is defined as the number of elapsed days between a billing date and the date when the next payment is made. For example, if a customer receives a bill on January 15 and one on February 15, and the first payment received after the January 15 billing is on March 14, the promptness index for January would be 57 days; the promptness index for February

would be 27 days; and the average promptness for the two billing periods would be 42 days.

- B) **Regularity index:** This measure identifies how regular the customer is in paying utility bills. It is computed by dividing the number of billing months in which the customer made a payment by the number of months in which a payment was due. There could be cases in which customers have a balance in their accounts and therefore no payment due.
- C) **Completeness of bill payment:** This measure determines what percent of the current amount due is paid during the billing cycle in which the payment was requested or in successive months. A customer who has a new billing of \$100 in a billing cycle who pays \$100 would have a completeness index of 100. A customer who has a new billing of \$100 but pays \$50 would have a completeness index of 50. A customer who has a new billing of \$100 in a billing cycle but pays nothing and who has another new billing of \$75 in the next billing cycle but pays \$175 at the end of the second cycle would have a completeness index of 100. A customer in a similar situation at the end of the second cycle who pays \$100 would have a completeness index of  $\$100/\$175 \times 100$  or 57. Finally a customer who had new billings of \$100 in a billing period and paid \$150, which retired arrearages, would be given a completeness index of 150 indicating that the arrearages were retired.

As implemented the completeness index was revised so that it is the average percentage of average payment made over the range of billing cycles.

- D) **Continuity index:** This index identifies the number of consecutive months in which the customer made payments on their bill. The index that was implemented was modified from the index that was originally proposed. The original index was calculated such that if the customer paid their bill in each of 12 consecutive months they would have a continuity index of  $12/1$  or 12. If a customer made payments in six months, skipped a month, and then made payments in four months and skipped a month, the continuity index would be  $(6+4)/2$  or 5. Customers with a balance that required no payment will be credited for a continuity payment in that month.

The index as implemented was modified so that the numbers of successive months were squared before being summed and then divided by the square of the total number of billing cycles. For the previous example, the calculation of the index would be  $(6^2 + 4^2)/12^2$  or 0.36. This algorithm provides somewhat better discrimination than the original algorithm for households making longer series of payments. For example, using the original algorithm, someone making 9 payments, skipping one payment, making a payment, and skipping a payment would have the same index as someone who made six payments, skipped one or two and then made four payments. The original index would have resulted in each of these households receiving an index score of 5. The revised index results in the household making nine sequential payments receiving an index of 0.57 the household making two series of shorter payments a 0.36.

## C.2 SAMPLING STRATEGY

After discussions with the PSC and OHEP staff and some of the utilities, the PA/Innovologie team modified the plan originally set forth in the proposal to include a sample of Maryland Energy Assistance Program (MEAP) participating households that were not on a budget-billing plan. As background, the budget or flat billing requirement has been a contentious issue. The 2005 program was redesigned so that all participants receive benefits from all programs for which they are eligible unless they opt out of a program. One effect of this was to increase the number of households receiving benefits from both EUSP and other programs, such as the MEAP. Another implication is that an increased number of households will be on budget billing unless they opt out of programs that require budget billing. The persons with whom we spoke believe that few households will opt out.

The retrospective analysis provided a unique opportunity to examine the payment behaviors of MEAP participants not on budget billing to EUSP participants for whom budget billing is required. Thus, we created three samples: EUSP participants, Arrearage participants, and MEAP participants who were not on budget billing. The initial number of sampled Arrearage participants, as defined in the proposal, was split in half to accommodate an equal number of MEAP participant sample points.

To be eligible for the samples, the participants had to have received benefits before June 30, 2004. The reason for requirement was to insure that each household had at least 12 months of post-participation data. Analysis of payment data from other studies conducted by the PA/Innovologie team had shown that at least 12 months of data are needed to complete the analysis and provide meaningful results.

The EUSP sample was drawn from the population of EUSP participants who received program benefits in State Fiscal Years 2003 *and* 2004 (i.e., participants received bill payment benefits between July 1, 2002, and June 30, 2003, and again between July 1, 2003, and June 30, 2004). Participants who only received bill payment benefits in one fiscal year were not eligible.

The Arrearage sample had the same requirements but also had the requirement that the participant received an arrearage benefit at some time during the program. The MEAP sample required that a household received assistance from MEAP, did not participate in EUSP, and had 12 months of post-grant history between July 1, 2003, and June 30, 2004.

As a practical matter, the effective dates were adjusted slightly from utility to utility because of the accessibility of the billing and payment histories. Further, due to the nature of the billing cycle, there is some variation in the months of data that are available for households both within and across utilities.

Originally, the sample size calculation was based on the assumption that there would be 95 percent confidence that the results would be accurate to within  $\pm 5$  percent assuming a binomial variable with a maximum variance. In the revised sampling scheme, the criteria for sample size were modified to account for the splitting of the original Arrearage sample into an Arrearage and a MEAP sample. The arrearage and MEAP sample sizes were calculated assuming a requirement to be 90 percent confident of the results at  $\pm 5$  percent. This resulted in a slight increase in the total number of sample points over the number originally proposed. The change from 95 and  $\pm 5$  to 90 and  $\pm 5$  was made in order to stay within the budget that was originally proposed for the project.

In order to be 95 percent confident in our results with accuracy of  $\pm 5$  percent, assuming that half the population has a given characteristic and that the other half does not, a sample of 387 households is required. Based on experience in other low income studies, we know that there is a very high attrition rate for cases in billing studies due to households that move, have service cut-offs, and/or anomalies in the billing data. Thus, we increased the size of the sample frame by three times in order to insure that we had enough data at the completion of the analysis to meet the statistical requirements. Thus the sample frame for the EUSP bill payment study was 387 times three or 1,161 cases of data.

At the 90 percent confidence interval, 272 cases of data are needed. There are two samples of this size resulting in a need for 544 cases of data. Tripling the number of cases to be drawn resulted in a sampling frame with 1632 cases.

### **C.3 EXTRACTING RECORDS FOR ACTIVE CLIENTS FROM THE OHEP DATABASE**

In order to obtain data from the utilities, it was necessary to provide the utilities with a list of account numbers for households that met the eligibility criteria. There were two ways that this could be done. The first was to write a set of specifications that OHEP's database contractor could apply to the database to extract a sample. The second was to ask for a selection of cases from which PA/Innovologie staff could then draw the sample. The first method was attractive because personnel who were familiar with the databases would be able to do the work. The difficulty with this approach was that the contractor was not familiar with drawing random samples and this approach would have required the PA/Innovologie Team to write a complex specification and then work with the database contractor to implement the specification.

The second alternative, the one that was implemented, was for the PA/Innovologie team to request a selected subset of the data, to examine that data, and then to draw the sample. OHEP delivered to the PA/Innovologie team a database of MEAP, EUSP, and Arrearage program participants from July 1, 2002 through June 30, 2004. It is from this database that sample was selected.

The OHEP information system is a multi-relational database containing approximately 61 tables. After carefully inspecting the data dictionary, it was determined that for sampling purposes, data were needed from eight tables. These tables were:

- PROGRAMS—Description of the programs.
- UTILITIES—Table containing utility account numbers.
- VENDORS—Codes for the energy vendors.
- CLIENTS—Table describing the characteristics of the client and the client's household.
- CLIENT\_PROGRAMS—Table indicating the programs in which the client was enrolled.
- CLIENT\_ADDRESSES—Client address and telephone number.
- HOUSEHOLDS—Household income.
- HHOLD\_INCOMES—Demographic data for members of the household.

The OHEP database contractor was given the criterion outlined above and asked to supply a set of flat text files, one file for each table, for the eligible records in the above-mentioned tables.

#### **C.4 PROCESSING THE RECORDS TO BUILD SAMPLING FRAMES FOR EUSP, ARREARAGE, AND MEAP CUSTOMERS**

Once the files were received from the contractor, the PA/Innovologie team began the process of preparing the data requests to the utilities. The first step was to review the data to determine if it appeared to meet the criteria we had established. The data were examined in Access and SPSS.

The PA/Innovologie team created lists of all customers by program and utility from the population data provided by the contractor, randomly ordered these lists, and then drew the sample by taking the households at the top of the list until the sample quota for the program and the utility were reached (see below). In the case of MEAP, there were two utilities where not enough sample points were available.

The lists of customers were as follows:

- An ordered sample of customers who participated in EUSP in 2002–2003 that continued to participate in 2003–2004. These customers may have also participated in the arrearage program and in MEAP.
- An ordered sample of arrearage customers who had participated in the arrearage program in 2002 and 2003 and who continued to participate in EUSP in 2003–2004.
- Ordered samples of MEAP customers who had not participated in either EUSP or the Arrearage program in 2002–2003 but who participated in the MEAP program in 2003–2004. This group of customers was to be the basis for a sample of customers who were not on budget billing.

Based on prior experience we anticipated that most of the customers who dropped from the program between the two years dropped from the program because they no longer resided at the address at which they were listed in 2002–2003.

Sample quotas (Table C.1) were developed by taking the PY04 participation rates by utility and program *based on sampling criteria*<sup>36</sup> (Sub-table 1), determining the proportion of participants by utility (Sub-table 2), apportioning them to the desired sample size (Sub-table 3), and multiplying by 3 to obtain the quota for the utility (Sub-table 4).

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<sup>36</sup> Please note: the numbers represented in Sub-table 1 represent the numbers per the sampling criteria, not the number of participants overall.

**Table C.1**  
**Development of EUSP, Arrearage, and MEAP Sample Quotas**  
**By Utility from PY04 Participation Rates**

<b>Sub-table 1 Participation PY04</b>				
	<b>MEAP- PY04</b>	<b>EUSP- PY04</b>	<b>Arrearage- PY04</b>	<b>Total</b>
Allegheny Power	677	6789	48	22551
Baltimore Gas and Electric	9898	18087	337	84326
Choptank Electric Cooperative	136	1155	50	3889
Conectiv Power Deliver	800	7188	1239	27142
Potomac Electric Power Company	485	3895	152	18166
Southern Maryland Electric Cooperative	241	2109	6	8137
<b>Total</b>	<b>12237</b>	<b>39223</b>	<b>1832</b>	
	<b>MEAP- PY04</b>	<b>EUSP- PY04</b>	<b>Arrearage- PY04</b>	
Allegheny Power	6	17	3	
Baltimore Gas and Electric	81	46	18	
Choptank Electric Cooperative	1	3	3	
Conectiv Power Delivery	7	18	68	
Potomac Electric Power Company	4	10	8	
Southern Maryland Electric Cooperative	2	5	0	
<b>Total</b>	<b>100</b>	<b>100</b>	<b>100</b>	

**Sub-table 1 Participation PY04**

	<b>MEAP- PY04</b>	<b>EUSP- PY04</b>	<b>Arrearage- PY04</b>	<b>Total</b>
Allegheny Power	11	67	5	
Baltimore Gas and Electric	157	178	36	
Choptank Electric Cooperative	2	11	5	
Conectiv Power Delivery	13	71	131	
Potomac Electric Power Company	8	38	16	
Southern Maryland Electric Cooperative	4	21	1	
<b>Total</b>	<b>194</b>	<b>387</b>	<b>194</b>	

	<b>MEAP- PY04</b>	<b>EUSP- PY04</b>	<b>Arrearage- PY04</b>	<b>Total</b>
Allegheny Power	32	201	15	248
Baltimore Gas and Electric	471	535	107	1113
Choptank Electric Cooperative	6	34	16	57
Conectiv Power Delivery	38	213	394	644
Potomac Electric Power Company	23	115	48	187
Southern Maryland Electric Cooperative	11	62	2	76
<b>Total</b>	<b>582</b>	<b>1161</b>	<b>582</b>	<b>2325</b>

**C.5 PREPARE A DATA REQUEST AND FILES WITH CUSTOMER LISTS TO BE SENT TO THE UTILITIES**

The utilities were sent an electronic list of EUSP, Arrearage, and MEAP customers with the following information.

- PA/Innovologie ID Number
- Sample Code
- Random number assigned

*C: Retrospective Bill Payment Assessment Results...*

- Utility Code
- Utility Account Number
- Customer Name (First, Middle Initial, Last)
- Customer's address
- Customer's billing address if different from Customer's Address
- Customer City
- Customer State
- Customer Zip Code
- Customer Telephone Number 1
- Customer Telephone Number 2.

A memorandum accompanied the list of customers, providing a brief background to the study and outlining the data request. Additionally, the memorandum detailed the number of records utilities were to provide to complete the data request.

The data request first asked utilities to provide information data for complete records. Complete records are defined as:

- Households for which there are 12 months of billing, credit or debit data for the same physical location.
- Households that remain at the same physical location for 12 months but where there may be gaps in service or payments.
- Households where the service is terminated but the members of the household continue to reside at the location and where service has not been restored by the end of the 12-month period.
- Households that moved from one location to one or more other physical locations within the service territory during the 12-month period.

Utilities were instructed to work down the list of cases and provide data for each complete case until they had enough complete records to fill their quota. For those records that could not be completed, utilities were asked to provide an explanation of why they dropped out. Incomplete cases did not count toward sampling quotas.

The analysis strategy required that utilities provide monthly billing data and credit and debit data. Specific components of the billing data request were billing periods (billing start date and billing end date), payment due date, read status, amount of bill for current period, amount due including amounts due from prior months, and total payments. Specific components of the credit and debit data request were date of the credit or debit, the amount of the credit or debit, whether the record was a credit or debit, and the source of the credit or debit.

## C.6 RECEIVE AND PROCESS PAYMENT DATA FROM THE UTILITIES

The utilities responded in a timely fashion to the data request. There were a few interactions with each utility to clarify some of the instructions or to inquire about how to handle situations that were unique to the utility.

It is important to keep in the mind that each utility has its own billing and payment system. These systems are usually comprised of numerous files. The way in which information is recorded and stored varies by utility. The request that they were given is somewhat unusual in the sense that it required putting together information from disparate systems within the utility. The utilities were able to provide us with the data for which we asked although there were some differences in the level of aggregation and specificity.

There were, of course, issues that arose in providing the data.

- The account numbers in the OHEP data file are not always accurate. When the utilities process payments, they correct the account numbers but the corrected numbers do not always make it back to the OHEP system. Thus, utilities had to manually locate the data for some accounts.
- Even though we attempted to insure that we requested information for active accounts, the low-income population is quite mobile and there are a percentage of customers who had moved from the service territories and who could not be located in utility files.
- The utilities were not always able to track customers who moved within the service territory if there were no outstanding balances or if the new service was listed under another name.
- Because MEAP targets heating and in many cases the utilities are not the heating fuel provider, we did not have account numbers for many of the MEAP participants. The utilities did their best to identify the electric accounts for these participants for us. However, many of the participants in the MEAP sample dropped out. Some of the utilities were able to supplement the MEAP sample by identifying MEAP participants who were not on budget billing. In a couple of cases, we provided random numbers so that these cases would be randomly selected.

Upon receiving the data from the utilities, a number of quality checks were completed. Rather than sending us the minimum number of data points requested, the utilities actually sent us data for as many customers as they could match on the lists that we sent them. This proved to be a bonus.

The first step in processing the data was to eliminate cases where there were insufficient months of data. Some of the utilities were able to provide more than the 12 months of data that we requested. In those cases, we extracted the most recent 12 months of data and reserved the other data for later analysis.

Each utility classifies its credits and debits differently. The primary concern in this analysis is the debits to the customer for energy services and customer payments for energy services to offset those debits. Some of the utilities offer more services than others, such as appliance rentals. Thus, we had to make sure that the credits and debits were identified as consistently as possible across the utilities and that charges for non-energy related items were handled

separately in the analysis. Credits and debits were classified into one of four categories, two for credits and two for debits.

8. A client energy service credit was any payment by the customer (or a customer's agent) for energy services.
9. Any energy service credits other than customer payments were marked as such. This includes any other credit to a customer's account including EUSP, MEAP, and Arrearage credits, credits from other social agencies, and other types of credits.
10. Energy debits were defined as any debit to the customer's account for energy or energy related charges that appeared on the customer's bill (for example, the budget bill amount) including such things as taxes or fees.
11. Non-energy related debits included appliance rentals or service fees for moving or repairing electrical services, etc.

For each utility, we developed a crossover file that allowed us to identify the credits or debit and categorize them appropriately.

#### **C.7 CREATE A STANDARDIZED DATA FILES AND WRITE COMPUTER CODE TO PROCESS THE PAYMENT DATA TO CREATE THE MEASURES**

A first interim data file was produced that aggregated the customer data for each of the four categories of credits by transaction date. This file was then processed using a visual basic program that was developed in Excel and which produced a second interim output file. The second file was a record of transactions associated with a specific billing date. For each customer and each billing date, the file contained the elapsed time between the billing and any payment made against the billing or the elapsed time until the next billing date if no payment was made, the amount paid (or zero if no payment was during the billing period), the percentage of the amount billed that was paid, and a running balance from the first period in the analysis.

This file was then processed by a second visual basic program that produced a final file containing the following:

- Average payment per billing
- Average payment per billing period for which there was a payment
- Average elapsed days to payment
- Continuity index.

Variables for frequency of payment and completeness of payment were processed separately.

The data were then joined with an SPSS file containing basic demographic data that had been separately compiled for the customers. Because we had a surplus of cases, we weighted the EUSP and Arrearage cases so that the cases supplied by each utility were weighted to match the number of requested cases (Table C.1, Sub-table 3). MEAP weighting was treated differently because not all of the utilities were able to supply their quota of MEAP cases; the MEAP sample was weighted to reflect the overall total of 194 cases. The result of

this is that the confidence bands around the estimates are actually narrower than they would have been if we had used just the number of cases required by the sample quota.

## C.8 DATA ANALYSIS

The data analysis was completed using a combination of SPSS and Excel. The cumulative distributions for the indices that were constructed are shown in the main chapter. The figures below provide the detailed information for the regression analyses that were completed.

### C.8.1 Regressions on Frequency of Payment Index

#### Model Summary Standard Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.367	.135	.120	.93952042

a Predictors: (Constant), Minority households = 1, adults no under six or over 64, 100 to 150 percent of the poverty level, Zscore(NUM\_HHM), Rural, Presence of disability no or yes, Budget bill, Less than 50 percent of the poverty level, Zscore(ESTANNUA), Large urban, adults with children under six, adult(s) over 64, Zscore(HHLD\_INC)

#### ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	102.371	13	7.875	8.921	.000
	Residual	657.026	744	.883		
	Total	759.396	757			

a Predictors: (Constant), Minority households = 1, adults no under six or over 64, 100 to 150 percent of the poverty level, Zscore(NUM\_HHM), Rural, Presence of disability no or yes, Budget bill, Less than 50 percent of the poverty level, Zscore(ESTANNUA), Large urban, adults with children under six, adult(s) over 64, Zscore(HHLD\_INC)  
 b Dependent Variable: Zscore(PERCENTM)

#### Coefficients

Model	Variable	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.168	.223		.754	.451
	Presence of disability no or yes	.216	.084	.095	2.577	.010
	Budget bill	-.496	.087	-.213	-5.727	.000
	adults no under six or over 64	-.172	.178	-.086	-.966	.334
	adults with children under six	-.329	.192	-.137	-1.709	.088
	adult(s) over 64	.111	.192	.047	.574	.566
	100 to 150 percent of the poverty level	.223	.110	.108	2.026	.043

Model	Variable	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
	Less than 50 percent of the poverty level	-.218	.145	-.087	-1.506	.132
	Zscore(ESTANNUA)	7.889E-02	.040	.079	1.995	.046
	Zscore(HHLD_INC)	-4.617E-02	.085	-.046	-.540	.589
	Zscore(NUM_HHM)	5.164E-02	.070	.052	.740	.459
	Large urban	.443	.106	.211	4.198	.000
	Rural	7.922E-03	.039	.010	.201	.841
	Minority households	-6.515E-02	.078	-.031	-.838	.402

a Dependent Variable: Zscore(PERCENTM)

Model Summary Stepwise Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.234	.055	.054	.97418678
2	.275	.076	.073	.96400135
3	.314	.099	.095	.95247198
4	.329	.108	.103	.94825203
5	.342	.117	.111	.94424943
6	.352	.124	.117	.94101439
7	.359	.129	.121	.93883147

a Predictors: (Constant), Budget bill

b Predictors: (Constant), Budget bill, Large urban

c Predictors: (Constant), Budget bill, Large urban, Less than 50 percent of the poverty level

d Predictors: (Constant), Budget bill, Large urban, Less than 50 percent of the poverty level, adult(s) over 64

e Predictors: (Constant), Budget bill, Large urban, Less than 50 percent of the poverty level, adult(s) over 64, Presence of disability no or yes

f Predictors: (Constant), Budget bill, Large urban, Less than 50 percent of the poverty level, adult(s) over 64, Presence of disability no or yes, 100 to 150 percent of the poverty level

g Predictors: (Constant), Budget bill, Large urban, Less than 50 percent of the poverty level, adult(s) over 64, Presence of disability no or yes, 100 to 150 percent of the poverty level, Zscore(ESTANNUA)

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	41.602	1	41.602	43.836	.000
	Residual	717.794	756	.949		
	Total	759.396	757			
2	Regression	57.462	2	28.731	30.917	.000
	Residual	701.934	755	.929		
	Total	759.396	757			

Model		Sum of Squares	df	Mean Square	F	Sig.
3	Regression	75.059	3	25.020	27.579	.000
	Residual	684.337	754	.907		
	Total	759.396	757			
4	Regression	82.009	4	20.502	22.801	.000
	Residual	677.387	753	.899		
	Total	759.396	757			
5	Regression	88.607	5	17.721	19.876	.000
	Residual	670.789	752	.892		
	Total	759.396	757			
6	Regression	94.081	6	15.680	17.708	.000
	Residual	665.315	751	.886		
	Total	759.396	757			
7	Regression	98.045	7	14.006	15.891	.000
	Residual	661.351	750	.881		
	Total	759.396	757			

a Predictors: (Constant), Budget bill

b Predictors: (Constant), Budget bill, Large urban

c Predictors: (Constant), Budget bill, Large urban, Less than 50 percent of the poverty level

d Predictors: (Constant), Budget bill, Large urban, Less than 50 percent of the poverty level, adult(s) over 64

e Predictors: (Constant), Budget bill, Large urban, Less than 50 percent of the poverty level, adult(s) over 64, Presence of disability no or yes

f Predictors: (Constant), Budget bill, Large urban, Less than 50 percent of the poverty level, adult(s) over 64, Presence of disability no or yes, 100 to 150 percent of the poverty level

g Predictors: (Constant), Budget bill, Large urban, Less than 50 percent of the poverty level, adult(s) over 64, Presence of disability no or yes, 100 to 150 percent of the poverty level, Zscore(ESTANNUA)

h Dependent Variable: Zscore(PERCENTM)

Coefficients

Model	Variable	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
Model		B	Std. Error	Beta		
1	(Constant)	.418	.071		5.859	.000
	Budget bill	-.544	.082	-.234	-6.621	.000
2	(Constant)	.120	.101		1.189	.235
	Budget bill	-.426	.086	-.183	-4.940	.000
	Large urban	.321	.078	.153	4.131	.000

Model	Variable	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
3	(Constant)	.185	.101		1.832	.067
	Budget bill	-.442	.085	-.190	-5.191	.000
	Large urban	.359	.077	.171	4.646	.000
	Less than 50 percent of the poverty level	-.385	.087	-.154	-4.404	.000
4	(Constant)	.106	.104		1.018	.309
	Budget bill	-.442	.085	-.190	-5.205	.000
	Large urban	.375	.077	.179	4.851	.000
	Less than 50 percent of the poverty level	-.320	.090	-.128	-3.554	.000
	adult(s) over 64	.235	.085	.100	2.780	.006
5	(Constant)	5.351E-02	.106		.507	.612
	Budget bill	-.455	.085	-.196	-5.380	.000
	Large urban	.362	.077	.173	4.702	.000
	Less than 50 percent of the poverty level	-.274	.091	-.109	-2.993	.003
	adult(s) over 64	.255	.085	.108	3.012	.003
	Presence of disability no or yes	.216	.079	.095	2.720	.007
6	(Constant)	-4.597E-02	.113		-.408	.683
	Budget bill	-.454	.084	-.195	-5.385	.000
	Large urban	.368	.077	.176	4.795	.000
	Less than 50 percent of the poverty level	-.182	.098	-.073	-1.858	.064
	adult(s) over 64	.248	.084	.105	2.936	.003
	Presence of disability no or yes	.241	.080	.106	3.019	.003
	100 to 150 percent of the poverty level	.192	.077	.093	2.486	.013

Model	Variable	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
7	(Constant)	-6.561E-02	.113		-.582	.561
	Budget bill	-.478	.085	-.206	-5.631	.000
	Large urban	.405	.079	.193	5.157	.000
	Less than 50 percent of the poverty level	-.182	.098	-.073	-1.855	.064
	adult(s) over 64	.303	.088	.128	3.437	.001
	Presence of disability no or yes	.252	.080	.111	3.160	.002
	100 to 150 percent of the poverty level	.186	.077	.090	2.414	.016
	Zscore(ESTANNUA)	7.889E-02	.037	.079	2.121	.034

a Dependent Variable: Zscore(PERCENTM)

### C.8.2 Regressions on Elapsed Time Index

#### Model Summary Standard Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.330	.109	.094	.94866343

a Predictors: (Constant), Rural, Presence of disability no or yes, 100 to 150 percent of the poverty level, adult(s) over 64, Budget bill, Minority households = 1, adults with children under six, Zscore(ESTANNUA), Less than 50 percent of the poverty level, Zscore(NUM\_HHM), Large urban, Zscore(HHLD\_INC), adults no under six or over 64

#### ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	82.103	13	6.316	7.018	.000
	Residual	669.876	744	.900		
	Total	751.978	757			

a Predictors: (Constant), Rural, Presence of disability no or yes, 100 to 150 percent of the poverty level, adult(s) over 64, Budget bill, Minority households = 1, adults with children under six, Zscore(ESTANNUA), Less than 50 percent of the poverty level, Zscore(NUM\_HHM), Large urban, Zscore(HHLD\_INC), adults no under six or over 64  
 b Dependent Variable: Zscore(AVEEALPD)

#### Coefficients

Model	Variable	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.115	.225		.511	.609
	Presence of disability no or yes	-.133	.085	-.059	-1.569	.117
	Budget bill	.423	.087	.183	4.834	.000
	adults no under six or over 64	3.593E-02	.180	.018	.199	.842
	adults with children under six	.135	.194	.057	.695	.487
	adult(s) over 64	-7.374E-02	.194	-.031	-.379	.704
	100 to 150 percent of the poverty level	-.233	.111	-.113	-2.095	.037
	Less than 50 percent of the poverty level	.185	.146	.074	1.267	.206
	Zscore(ESTANNUA)	-.120	.040	-.121	-3.013	.003
	Zscore(HHLD_INC)	6.127E-02	.086	.062	.710	.478
	Zscore(NUM_HHM)	-8.481E-02	.070	-.085	-1.204	.229

Model	Variable	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
	Minority households	-.136	.078	-.066	-1.737	.083
	Large urban	-.439	.107	-.210	-4.115	.000
	Rural	-2.319E-02	.040	-.028	-.582	.560

a Dependent Variable: Zscore(AVEEALPD)

Model Summary Stepwise Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.224	.050	.049	.97172090
2	.275	.075	.073	.95944069
3	.293	.086	.082	.95458401
4	.310	.096	.092	.94973684

a Predictors: (Constant), Budget bill

b Predictors: (Constant), Budget bill, Large urban

c Predictors: (Constant), Budget bill, Large urban, 100 to 150 percent of the poverty level

d Predictors: (Constant), Budget bill, Large urban, 100 to 150 percent of the poverty level, Zscore(ESTANNUA)

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	37.813	1	37.813	40.046	.000
	Residual	714.165	756	.944		
	Total	751.978	757			
2	Regression	56.670	2	28.335	30.781	.000
	Residual	695.308	755	.921		
	Total	751.978	757			
3	Regression	64.603	3	21.534	23.632	.000
	Residual	687.375	754	.911		
	Total	751.978	757			
4	Regression	72.468	4	18.117	20.085	.000
	Residual	679.510	753	.902		
	Total	751.978	757			

a Predictors: (Constant), Budget bill

b Predictors: (Constant), Budget bill, Large urban

c Predictors: (Constant), Budget bill, Large urban, 100 to 150 percent of the poverty level

d Predictors: (Constant), Budget bill, Large urban, 100 to 150 percent of the poverty level, Zscore(ESTANNUA)

e Dependent Variable: Zscore(AVEEALPD)

Coefficients						
Model	Variable	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.397	.071		-5.573	.000
	Budget bill	.519	.082	.224	6.328	.000
2	(Constant)	-7.172E-02	.100		-.714	.475
	Budget bill	.390	.086	.169	4.544	.000
	Large urban	-.350	.077	-.168	-4.526	.000
3	(Constant)	1.857E-02	.105		.178	.859
	Budget bill	.391	.085	.169	4.581	.000
	Large urban	-.369	.077	-.177	-4.774	.000
	100 to 150 percent of the poverty level	-.212	.072	-.103	-2.951	.003
4	(Constant)	2.412E-02	.104		.232	.817
	Budget bill	.421	.086	.182	4.925	.000
	Large urban	-.413	.078	-.198	-5.274	.000
	100 to 150 percent of the poverty level	-.212	.072	-.103	-2.965	.003
	Zscore(ESTANNUA)	-.106	.036	-.106	-2.953	.003

a Dependent Variable: Zscore(AVEEALPD)

### C.8.3 Regressions on Frequency of Continuity Index

#### Model Summary Standard Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.365	.133	.118	.94506304

a Predictors: (Constant), Rural, Presence of disability no or yes, 100 to 150 percent of the poverty level, adult(s) over 64, Budget bill, Minority households = 1, adults with children under six, Zscore(ESTANNUA), Less than 50 percent of the poverty level, Zscore(NUM\_HHM), Large urban, Zscore(HHLD\_INC), adults no under six or over 64

#### ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	102.147	13	7.857	8.798	.000
	Residual	664.801	744	.893		
	Total	766.948	757			

a Predictors: (Constant), Rural, Presence of disability no or yes, 100 to 150 percent of the poverty level, adult(s) over 64, Budget bill, Minority households = 1, adults with children under six, Zscore(ESTANNUA), Less than 50 percent of the poverty level, Zscore(NUM\_HHM), Large urban, Zscore(HHLD\_INC), adults no under six or over 64  
 b Dependent Variable: Zscore(CONTINUI)

#### Coefficients

Model	Variable	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.257	.224		1.148	.251
	Presence of disability no or yes	.192	.084	.084	2.277	.023
	Budget bill	-.128	.087	-.055	-1.470	.142
	adults no under six or over 64	-.257	.179	-.128	-1.430	.153
	adults with children under six	-.393	.193	-.163	-2.030	.043
	adult(s) over 64	.253	.194	.106	1.305	.192
	100 to 150 percent of the poverty level	.208	.111	.100	1.873	.061
	Less than 50 percent of the poverty level	-.265	.146	-.105	-1.820	.069
	Zscore(ESTANNUA)	3.521E-02	.040	.035	.885	.376
	Zscore(HHLD_INC)	-8.084E-02	.086	-.081	-.941	.347
	Zscore(NUM_HHM)	5.852E-03	.070	.006	.083	.934

Model	Variable	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
	Minority households	-.284	.078	-.136	-3.640	.000
	Large urban	.177	.106	.084	1.665	.096
	Rural	-7.245E-03	.040	-.009	-.183	.855

a Dependent Variable: Zscore(CONTINUI)

Model Summary Stepwise Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.270	.073	.072	.96963895
2	.300	.090	.088	.96126677
3	.320	.102	.099	.95529979
4	.332	.110	.105	.95188309
5	.342	.117	.111	.94885463
6	.351	.123	.116	.94614820

a Predictors: (Constant), adult(s) over 64

b Predictors: (Constant), adult(s) over 64, Presence of disability no or yes

c Predictors: (Constant), adult(s) over 64, Presence of disability no or yes, Minority households = 1

d Predictors: (Constant), adult(s) over 64, Presence of disability no or yes, Minority households = 1, 100 to 150 percent of the poverty level

e Predictors: (Constant), adult(s) over 64, Presence of disability no or yes, Minority households = 1, 100 to 150 percent of the poverty level, Large urban

f Predictors: (Constant), adult(s) over 64, Presence of disability no or yes, Minority households = 1, 100 to 150 percent of the poverty level, Large urban, adults with children under six

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	55.840	1	55.840	59.391	.000
	Residual	711.108	756	.940		
	Total	766.948	757			
2	Regression	68.990	2	34.495	37.331	.000
	Residual	697.957	755	.924		
	Total	766.948	757			
3	Regression	78.541	3	26.180	28.688	.000
	Residual	688.407	754	.913		
	Total	766.948	757			
4	Regression	84.363	4	21.091	23.277	.000
	Residual	682.585	753	.906		
	Total	766.948	757			

Model		Sum of Squares	df	Mean Square	F	Sig.
5	Regression	89.599	5	17.920	19.904	.000
	Residual	677.348	752	.900		
	Total	766.948	757			
6	Regression	94.353	6	15.726	17.567	.000
	Residual	672.595	751	.895		
	Total	766.948	757			

a Predictors: (Constant), adult(s) over 64

b Predictors: (Constant), adult(s) over 64, Presence of disability no or yes

c Predictors: (Constant), adult(s) over 64, Presence of disability no or yes, Minority households = 1

d Predictors: (Constant), adult(s) over 64, Presence of disability no or yes, Minority households = 1, 100 to 150 percent of the poverty level

e Predictors: (Constant), adult(s) over 64, Presence of disability no or yes, Minority households = 1, 100 to 150 percent of the poverty level, Large urban

f Predictors: (Constant), adult(s) over 64, Presence of disability no or yes, Minority households = 1, 100 to 150 percent of the poverty level, Large urban, adults with children under six

g Dependent Variable: Zscore(CONTINU)

**Coefficients**

Model	Variable	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	-.143	.040		-3.543	.000
	adult(s) over 64	.640	.083	.270	7.707	.000
2	(Constant)	-.224	.045		-4.941	.000
	adult(s) over 64	.652	.082	.275	7.910	.000
	Presence of disability no or yes	.299	.079	.131	3.773	.000
3	(Constant)	-5.990E-02	.068		-.881	.379
	adult(s) over 64	.613	.083	.258	7.398	.000
	Presence of disability no or yes	.280	.079	.123	3.544	.000
	Minority households	-.236	.073	-.113	-3.235	.001
4	(Constant)	-.133	.074		-1.803	.072
	adult(s) over 64	.585	.083	.246	7.022	.000
	Presence of disability no or yes	.290	.079	.127	3.687	.000
	Minority households	-.224	.073	-.107	-3.067	.002
	100 to 150 percent of the poverty level	.184	.073	.088	2.535	.011

Model	Variable	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
5	(Constant)	-.220	.082		-2.691	.007
	adult(s) over 64	.596	.083	.251	7.164	.000
	Presence of disability no or yes	.282	.079	.124	3.590	.000
	Minority households	-.281	.077	-.135	-3.674	.000
	100 to 150 percent of the poverty level	.193	.072	.093	2.670	.008
6	Large urban	.185	.077	.088	2.412	.016
	(Constant)	-.155	.086		-1.800	.072
	adult(s) over 64	.535	.087	.225	6.156	.000
	Presence of disability no or yes	.232	.081	.102	2.846	.005
	Minority households	-.278	.076	-.133	-3.646	.000
	100 to 150 percent of the poverty level	.191	.072	.092	2.639	.008
Large urban	.198	.077	.094	2.583	.010	
adults with children under six	-.207	.090	-.086	-2.304	.021	

a Dependent Variable: Zscore(CONTINUI)

### C.8.4 Regressions on Average Payment Per Billing Period

Model Summary Standard Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.337	.113	.099	.94504223

a Predictors: (Constant), Rural, Presence of disability no or yes, 100 to 150 percent of the poverty level, adult(s) over 64, Budget bill, Minority households = 1, adults with children under six, Less than 50 percent of the poverty level, Zscore(NUM\_HHM), Large urban, Zscore(HHLD\_INC), adults no under six or over 64

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	86.502	12	7.208	8.071	.000
	Residual	677.304	758	.893		
	Total	763.806	770			

a Predictors: (Constant), Rural, Presence of disability no or yes, 100 to 150 percent of the poverty level, adult(s) over 64, Budget bill, Minority households = 1, adults with children under six, Less than 50 percent of the poverty level, Zscore(NUM\_HHM), Large urban, Zscore(HHLD\_INC), adults no under six or over 64  
 b Dependent Variable: Zscore(AVEPAYPE)

Coefficients

Model	Variable	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.614	.223		2.755	.006
	Presence of disability no or yes	-2.851E-02	.083	-.013	-.343	.732
	Budget bill	-.357	.085	-.156	-4.191	.000
	adults no under six or over 64	-.205	.179	-.103	-1.144	.253
	adults with children under six	-.214	.193	-.090	-1.110	.267
	adult(s) over 64	-.409	.193	-.174	-2.120	.034
	100 to 150 percent of the poverty level	5.333E-02	.110	.026	.484	.628
	Less than 50 percent of the poverty level	-1.855E-02	.145	-.007	-.128	.898
	Zscore(HHLD_INC)	2.327E-02	.086	.023	.272	.786

Model	Variable	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
	Zscore(NUM_HHM )	.223	.069	.224	3.230	.001
	Minority households = 1	-3.408E-02	.077	-.017	-.445	.657
	Large urban	-.210	.105	-.100	-1.992	.047
	Rural	8.169E-02	.040	.100	2.068	.039

a Dependent Variable: Zscore(AVEPAYPE)

Model Summary Stepwise Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.168	.028	.027	.98646836
2	.216	.047	.044	.97774037
3	.243	.059	.055	.97191793
4	.268	.072	.067	.96600803
5	.280	.078	.072	.96327586

a Predictors: (Constant), adult(s) over 64

b Predictors: (Constant), adult(s) over 64, Rural

c Predictors: (Constant), adult(s) over 64, Rural, Budget bill

d Predictors: (Constant), adult(s) over 64, Rural, Budget bill, adults no under six or over 64

e Predictors: (Constant), adult(s) over 64, Rural, Budget bill, adults no under six or over 64, Large urban

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	21.837	1	21.837	22.441	.000
	Residual	751.915	773	.973		
	Total	773.753	774			
2	Regression	36.040	2	18.020	18.850	.000
	Residual	737.713	772	.956		
	Total	773.753	774			
3	Regression	45.745	3	15.248	16.142	.000
	Residual	728.008	771	.945		
	Total	773.753	774			
4	Regression	55.504	4	13.876	14.870	.000
	Residual	718.248	770	.933		
	Total	773.753	774			

Model		Sum of Squares	df	Mean Square	F	Sig.
5	Regression	60.489	5	12.098	13.038	.000
	Residual	713.263	769	.928		
	Total	773.753	774			

a Predictors: (Constant), adult(s) over 64

b Predictors: (Constant), adult(s) over 64, Rural

c Predictors: (Constant), adult(s) over 64, Rural, Budget bill

d Predictors: (Constant), adult(s) over 64, Rural, Budget bill, adults no under six or over 64

e Predictors: (Constant), adult(s) over 64, Rural, Budget bill, adults no under six or over 64, Large urban

f Dependent Variable: Zscore(AVEPAYPE)

Coefficients

Model	Variable	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	9.355E-02	.041		2.307	.021
	adult(s) over 64	-.396	.083	-.168	-4.737	.000
2	(Constant)	3.161E-02	.043		.730	.465
	adult(s) over 64	-.429	.083	-.182	-5.156	.000
	Rural	.112	.029	.136	3.854	.000
3	(Constant)	.216	.072		3.008	.003
	adult(s) over 64	-.427	.083	-.181	-5.164	.000
	Rural	.137	.030	.167	4.592	.000
	Budget bill	-.268	.084	-.116	-3.205	.001
4	(Constant)	.393	.090		4.368	.000
	adult(s) over 64	-.604	.099	-.256	-6.117	.000
	Rural	.140	.030	.171	4.721	.000
	Budget bill	-.271	.083	-.118	-3.263	.001
	adults no under six or over 64	-.270	.083	-.135	-3.234	.001
5	(Constant)	.633	.137		4.619	.000
	adult(s) over 64	-.619	.099	-.263	-6.277	.000
	Rural	7.785E-02	.040	.095	1.942	.053
	Budget bill	-.314	.085	-.136	-3.696	.000
	adults no under six or over 64	-.283	.083	-.141	-3.390	.001
	Large urban	-.244	.105	-.116	-2.318	.021

a Dependent Variable: Zscore(AVEPAYPE)

**C.8.5 Regressions on Average Payment per Billing Period for Periods in which Payments were made**

Model Summary Standard Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.341	.116	.107	.94515863

a Predictors: (Constant), Rural, Presence of disability no or yes, adult(s) over 64, Budget bill, Minority households = 1, adults with children under six, Large urban, adults no under six or over 64

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	89.902	8	11.238	12.580	.000
	Residual	684.005	766	.893		
	Total	773.907	774			

a Predictors: (Constant), Rural, Presence of disability no or yes, adult(s) over 64, Budget bill, Minority households = 1, adults with children under six, Large urban, adults no under six or over 64  
 b Dependent Variable: Zscore(AVEPAYPA)

Coefficients

Model	Variable	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.322	.217		1.486	.138
	Presence of disability no or yes	-.247	.080	-.109	-3.075	.002
	Budget bill	-5.883E-02	.085	-.026	-.693	.488
	adults no under six or over 64	-1.258E-02	.178	-.006	-.071	.944
	adults with children under six	.316	.188	.132	1.679	.094
	adult(s) over 64	-.486	.186	-.206	-2.610	.009
	Minority households = 1	4.375E-02	.076	.021	.574	.566
	Large urban	-.327	.105	-.156	-3.120	.002
	Rural	3.697E-02	.039	.045	.940	.348

a Dependent Variable: Zscore(AVEPAYPA)

Model Summary Stepwise Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.223	.050	.048	.97558911

C: Retrospective Bill Payment Assessment Results...

2	.277	.077	.074	.96221344
3	.320	.102	.099	.94937740
4	.338	.114	.109	.94379983

a Predictors: (Constant), adult(s) over 64  
 b Predictors: (Constant), adult(s) over 64, Large urban  
 c Predictors: (Constant), adult(s) over 64, Large urban, adults with children under six  
 d Predictors: (Constant), adult(s) over 64, Large urban, adults with children under six, Presence of disability no or yes

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	38.486	1	38.486	40.436	.000
	Residual	735.422	773	.952		
	Total	773.907	774			
2	Regression	59.439	2	29.720	32.100	.000
	Residual	714.468	772	.926		
	Total	773.907	774			
3	Regression	79.275	3	26.425	29.318	.000
	Residual	694.632	771	.901		
	Total	773.907	774			
4	Regression	88.304	4	22.076	24.783	.000
	Residual	685.603	770	.891		
	Total	773.907	774			

a Predictors: (Constant), adult(s) over 64  
 b Predictors: (Constant), adult(s) over 64, Large urban  
 c Predictors: (Constant), adult(s) over 64, Large urban, adults with children under six  
 d Predictors: (Constant), adult(s) over 64, Large urban, adults with children under six, Presence of disability no or yes  
 e Dependent Variable: Zscore(AVEPAYPA)

Coefficients

Model	Variable	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.124	.040		3.092	.002
	adult(s) over 64	-.525	.083	-.223	-6.359	.000
2	(Constant)	.360	.063		5.674	.000
	adult(s) over 64	-.564	.082	-.240	-6.891	.000
	Large urban	-.347	.073	-.165	-4.757	.000
3	(Constant)	.257	.066		3.874	.000
	adult(s) over 64	-.448	.084	-.190	-5.298	.000

Model	Variable	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
4	Large urban	-.371	.072	-.177	-5.138	.000
	adults with children under six	.402	.086	.168	4.691	.000
	(Constant)	.342	.071		4.808	.000
	adult(s) over 64	-.477	.084	-.202	-5.642	.000
	Large urban	-.362	.072	-.172	-5.037	.000
	adults with children under six	.328	.088	.137	3.715	.000
	Presence of disability no or yes	-.253	.080	-.112	-3.184	.002

a Dependent Variable: Zscore(AVEPAYPA)

### C.8.6 Regressions on Completeness Index

#### Model Summary Standard Regression

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.455	.207	.187	.28804

a Predictors: (Constant), Rural, Zscore(HHLD\_INC), adult(s) over 64, Presence of disability no or yes, Budget bill, Zscore(ESTANNUA), Minority households = 1, adults with children under six, 100 to 150 percent of the poverty level, Less than 50 percent of the poverty level, Large urban, Zscore(NUM\_HHM), adults no under six or over 64

ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	11.256	13	.866	10.436	.000
	Residual	43.087	519	.083		
	Total	54.342	532			

a Predictors: (Constant), Rural, Zscore(HHLD\_INC), adult(s) over 64, Presence of disability no or yes, Budget bill, Zscore(ESTANNUA), Minority households = 1, adults with children under six, 100 to 150 percent of the poverty level, Less than 50 percent of the poverty level, Large urban, Zscore(NUM\_HHM), adults no under six or over 64  
 b Dependent Variable: BDCOMPLE

Coefficients

Model	Variable	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.526	.085		6.213	.000
	Presence of disability no or yes	8.912E-03	.030	.013	.297	.767
	Budget bill	-.168	.029	-.249	-5.880	.000
	adults no under six or over 64	7.745E-03	.069	.012	.112	.911
	adults with children under six	-4.389E-02	.074	-.057	-.597	.551
	adult(s) over 64	-8.599E-02	.074	-.113	-1.168	.243
	Zscore(ESTANNUA)	1.481E-02	.015	.043	.971	.332
	Zscore(HHLD_INC)	-1.942E-02	.032	-.060	-.609	.543
	Less than 50 percent of the poverty level	-3.846E-02	.053	-.049	-.730	.466
	100 to 150 percent of the poverty level	8.907E-02	.041	.134	2.196	.029
	Zscore(NUM_HHM)	5.082E-02	.026	.159	1.969	.050
	Minority households	7.123E-02	.031	.105	2.308	.021
	Large urban	.194	.045	.248	4.350	.000
	Rural	2.108E-02	.018	.063	1.152	.250

a Dependent Variable: BDCOMPLE

**Model Summary Stepwise Regression**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.318	.101	.099	.30324
2	.386	.149	.146	.29527
3	.416	.173	.169	.29133
4	.430	.185	.179	.28954
5	.439	.192	.185	.28850
6	.446	.199	.190	.28758

a Predictors: (Constant), Budget bill

b Predictors: (Constant), Budget bill, Large urban

c Predictors: (Constant), Budget bill, Large urban, adult(s) over 64

d Predictors: (Constant), Budget bill, Large urban, adult(s) over 64, 100 to 150 percent of the poverty level

e Predictors: (Constant), Budget bill, Large urban, adult(s) over 64, 100 to 150 percent of the poverty level, Minority households = 1

f Predictors: (Constant), Budget bill, Large urban, adult(s) over 64, 100 to 150 percent of the poverty level, Minority households = 1, Zscore(NUM\_HHM)

**ANOVA**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	5.483	1	5.483	59.622	.000
	Residual	48.859	531	.092		
	Total	54.342	532			
2	Regression	8.107	2	4.053	46.492	.000
	Residual	46.235	530	.087		
	Total	54.342	532			
3	Regression	9.417	3	3.139	36.983	.000
	Residual	44.926	529	.085		
	Total	54.342	532			
4	Regression	10.050	4	2.512	29.970	.000
	Residual	44.292	528	.084		
	Total	54.342	532			
5	Regression	10.453	5	2.091	25.117	.000
	Residual	43.890	527	.083		
	Total	54.342	532			
6	Regression	10.813	6	1.802	21.790	.000
	Residual	43.530	526	.083		
	Total	54.342	532			

a Predictors: (Constant), Budget bill

b Predictors: (Constant), Budget bill, Large urban

c Predictors: (Constant), Budget bill, Large urban, adult(s) over 64

d Predictors: (Constant), Budget bill, Large urban, adult(s) over 64, 100 to 150 percent of the poverty level

C: Retrospective Bill Payment Assessment Results...

e Predictors: (Constant), Budget bill, Large urban, adult(s) over 64, 100 to 150 percent of the poverty level, Minority households = 1  
 f Predictors: (Constant), Budget bill, Large urban, adult(s) over 64, 100 to 150 percent of the poverty level, Minority households = 1, Zscore(NUM\_HHM)  
 g Dependent Variable: BDCOMPLE

Coefficients

Model	Variable	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	.761	.022		33.936	.000
	Budget bill	-.214	.028	-.318	-7.722	.000
2	(Constant)	.596	.037		15.975	.000
	Budget bill	-.174	.028	-.259	-6.245	.000
	Large urban	.178	.032	.227	5.486	.000
3	(Constant)	.625	.038		16.648	.000
	Budget bill	-.171	.028	-.254	-6.209	.000
	Large urban	.172	.032	.220	5.379	.000
	adult(s) over 64	-.118	.030	-.156	-3.929	.000
4	(Constant)	.597	.039		15.425	.000
	Budget bill	-.171	.027	-.254	-6.241	.000
	Large urban	.178	.032	.229	5.602	.000
	adult(s) over 64	-.132	.030	-.174	-4.349	.000
	100 to 150 percent of the poverty level	7.327E-02	.027	.110	2.749	.006
5	(Constant)	.560	.042		13.313	.000
	Budget bill	-.156	.028	-.231	-5.535	.000
	Large urban	.151	.034	.194	4.445	.000
	adult(s) over 64	-.122	.031	-.161	-3.998	.000
	100 to 150 percent of the poverty level	7.747E-02	.027	.116	2.910	.004
	Minority households = 1	6.716E-02	.031	.099	2.199	.028
6	(Constant)	.559	.042		13.347	.000
	Budget bill	-.160	.028	-.239	-5.707	.000
	Large urban	.151	.034	.194	4.453	.000
	adult(s) over 64	-9.322E-02	.034	-.122	-2.779	.006
	100 to 150 percent of the poverty level	7.565E-02	.027	.113	2.849	.005

C: Retrospective Bill Payment Assessment Results...



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Minority households	6.455E-02	.030	.096	2.119	.035
Zscore(NUM_HHM)	2.889E-02	.014	.090	2.087	.037

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a Dependent Variable: BDCOMPLE

## **APPENDIX D: DATA COLLECTION INSTRUMENTS**

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This appendix contains the interview protocols for the process evaluation.

### **D.1 OHEP DESIGN AND DELIVERY STAFF INTERVIEW PROTOCOL**

#### **ELECTRIC UNIVERSAL SERVICE PROGRAM (EUSP) EVALUATION OFFICE OF HOME ENERGY PROGRAMS (OHEP) DESIGN AND DELIVERY STAFF Interview Protocol 2004**

Interview Objectives:

- Gather specific process information for EUSP
  - Identify issues that should be incorporated into the evaluation planning process and customer surveys
  - Characterize program operations including staffing and subcontracting, budgets, outreach activities and marketing, types of persons served, and types of agencies OHEP works with.
- 

#### **I. Introduction**

#### **II. First, I would like to get an understanding of how EUSP works.**

1. Could you describe your role in administering EUSP?
2. Could you describe your oversight and interactions with the various local administering agencies?
3. What other agencies and organization do you work with in your role of administering EUSP?

#### **III. Program Procedures**

4. Could you briefly describe how outreach is done for EUSP centrally at OHEP and at the local administering agency level?
  - What outreach approaches do you think are the most, least successful in reaching potential applicants? Why?
5. Could you describe EUSP's coordination with the Maryland energy assistance program? How does the program coordinate with other assistance programs and agencies?
6. How does the program specifically target persons with high electric burdens?
7. What customer education components or self-help strategies are typically employed through EUSP?

**IV. Next, I would like to get a sense of your opinion of how the program is functioning.**

8. Who all do you work with in administering EUSP? (Probe for range of market actors: utilities, other agencies, etc.)
9. Have you encountered or are you encountering any specific difficulties with working with any of the groups we discussed above? (Probe on consistency, efficiency of delivery and QC)
10. Could you describe the EUSP program management information system? How do you manage the application, enrollment, and payment processes? Have you encountered or are you encountering any difficulties in program payment or the service delivery process?
11. What do you think is working best in the program?
12. What do you think is most in need of improvement?
13. Are there any other program delivery mechanisms you think should be explored?
14. Are there any state or federal regulations that hamper your ability to provide this program to the people who need it?

**V. Program Impacts**

15. What do you perceive to be the primary benefits of EUSP to your customers?
  - Do you believe the program is helping customers to improve their payment of electric bills?
  - Do you feel this service helps most, some or none of your customers to become more self-sufficient in meeting their household electric needs?
  - What are the characteristics of households where EUSP does appear to help them become more self-sufficient? (I.e., higher poverty level, working family)
  - What impacts, if any, do you see EUSP having on customers' lives?
16. How effective do you think the program has been in targeting and servicing those who have a high electric burden?
17. How effective do you think the program has been in interacting with other low-income energy programs such as the Maryland Energy Assistance Program to deliver services in a manner that contributes to making households' energy self-sufficient?
18. Do you think that an energy education or financial management component of EUSP assists customers in becoming self-sufficient?
  - Do you provide any budget counseling to customers in need?
  - Do you currently provide any other type of energy education or financial management to assist customers in becoming self-sufficient?
  - Do you provide any other services to customers in need?

*D: Data Collection Instruments...*

19. What changes could be made to the existing program that would allow customers to become more self-sufficient?

**VI. Finally, I would like to discuss the evaluation process with you. (EXPLAIN PURPOSE OF EVALUATION AGAIN AND TYPE OF DATA PLANNED ON BEING COLLECTED.)**

20. What additional issues would you like to see the evaluation address?

21. What data would you like to see the evaluation collect?

## D.2 EUSP UTILITY CONTACT INTERVIEW PROTOCOL

### Electric Universal Service Program (EUSP) Utility Contact Interview Protocol

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- I. **Introduction (purpose of evaluation, confidentiality of process responses)**
- II. **First, I would like to get an understanding of how EUSP operates within your utility.**
  1. Could you please explain to me the process of how EUSP benefits are applied to an account?
  2. How is this process working? How could this process be improved?
  3. What state and local administering agencies do you work with as part of EUSP?
    - How often do you interact with these agencies? What is the nature of your interactions with agencies regarding EUSP? (What types of tasks do they do?)
  4. How many employees at your company work with EUSP agencies and customers? Is there one specific contact responsible, or are all utility reps familiar and responsible?
  5. Have you or other staff at your location received training and/or technical support from these agencies or the state about EUSP? How adequate is training and technical support provided about the program? What additional training and support is needed?
  6. Have you encountered or are you encountering any administrative difficulties working with state or local agencies about EUSP? (PROBE on consistency, efficiency of delivery and QC)
    - What changes do you feel could be made to improve this situation?
- III. **Next, I would like to get a sense of your interaction with EUSP customers.**
  7. What is the nature of your interactions with EUSP recipients? Does EUSP help/hinder your relationship with your customers?
    - Do you ever refer customers in need to EUSP? How often do you refer customers in need of assistance to EUSP? (PROBE TO GET IDEA OF NUMBER OF REFERRALS)
    - What factors are typically present that indicate individuals should be referred to EUSP (i.e., X number of shut-offs, a phone call from individual explaining difficulties, etc)?
  8. What is your company's policy about disconnects? What impact does EUSP have on the way you handle disconnects?
  9. What other agencies or organization, if any, do you coordinate with to help customers meet their electric bill payment needs?

- Do you refer customers to any other type of social service agency or other place for assistance?

#### IV. Program Impacts

10. What do you perceive to be the primary benefits of EUSP to your customers?
  - Do you believe the program is helping customers to improve their payment of electric bills?
  - Do you feel this service helps most, some or none of your customers to become more self-sufficient in meeting their household electric needs?
  - What are the characteristics of households where EUSP does appear to help them become more self-sufficient? (I.e., higher poverty level, working family)
  - What impacts, if any, do you see EUSP having on customers' lives?
11. How effective do you think the program has been in targeting and servicing those who have a high electric burden?
12. How effective do you think the program has been in interacting with other low-income energy programs such as the Maryland Energy Assistance Program to deliver services in a manner that contributes to making households' energy self-sufficient?
13. Do you think that an energy education or financial management component of EUSP assists customers in becoming self-sufficient?
  - Do you provide any budget counseling to customers in need?
  - Do you currently provide any other type of energy education or financial management to assist customers in becoming self-sufficient?
  - Do you provide any other services to customers in need?
14. What changes could be made to the existing program that would allow customers to become more self-sufficient?

#### V. **Finally, I would like to discuss the evaluation process with you. (EXPLAIN PURPOSE OF EVALUATION AGAIN AND TYPE OF DATA PLANNED ON BEING COLLECTED.)**

15. Do you need a confidentiality agreement between the PA/Innovologie Team and the utility in order to obtain customer data? If so, should we provide you with one?
16. To protect customer confidentiality, we propose a key file system so that analysis files will not contain specific customer information but will allow us to match additional data from multiple sources when necessary. The analysis files will not contain sufficient information to identify a specific customer. Does this address any concerns you may have about customer confidentiality?

17. There are actually two impact evaluations. The first is a 12-month retrospective that will be beginning as soon as possible. The second will occur about a year from now. For the first impact evaluation, we will provide you with a list of names and account numbers for customers from your utility. We will be asking for one year of data for these customers for the billing cycle beginning July 1, 2003.

We will be asking for the following information:

- Account number
- Billing address
- Meter address.

12 months of data for the following from July 1, 2003:

- Reading date
- Billing date
- KWh consumption
- Status of the read (actual or estimated)
- Amount of the bill including taxes and other fees
- Amount owed
- Payments from the customer
- Date payments were received from the customer
- EUSP bill payments
- Date EUSP bill payments were received
- EUSP arrearage payments
- Date EUSP arrearage payments received
- Payments from other sources
- Dates of payments from other sources
- Source of other payments if known.

Can you supply this data? What problems may arise in supplying this data?

18. To whom should the data request be directed?
19. How long will it take to process this request? Who would be the contact for this request?
20. In 2005, we will be requesting three years of similar data for a new sample? Do you see any problems with that?
21. We will also be drawing a sample of nonparticipants in 2005. For that sample, we may only be able to supply addresses. Do you see that as a problem?
22. What additional issues would you like to see the evaluation address?

### **D.3 LOCAL ADMINISTERING AGENCIES INTERVIEW PROTOCOL**

#### **The Electric Universal Service Program (EUSP) Evaluation Local Administering Agencies Interview Protocol**

Interview Objectives:

- Characterize LAA operations and identify enrollment best practices.
- Gather specific process information for EUSP
- Identify issues that should be incorporated into the evaluation planning process and customer survey instruments

---

#### **I. Introduction**

Explain purpose of evaluation and assure confidentiality of interview.

#### **II. EUSP Administration**

First, I would like to get an understanding of how EUSP operates within your agency.

1. How would you describe your agency?
2. How many people are involved in administering EUSP within your agency?
3. What percent of work does it compose for each involved staff member? How does this vary by season?
4. Do you feel EUSP administrative funding is sufficient to allow for the types of activities required?
5. How do you coordinate EUSP with other assistance programs (specifically probe about coordination with MEAP)?

#### **III. EUSP enrollment practices**

6. How do the majority of applicants find out about EUSP?
7. Could you briefly describe your outreach plan for EUSP?
  - Which approach is most, least successful in reaching potential applicants? Why?
8. How do you try to target the program to those with high electric burdens?

#### **III. Next, I would like to get a sense of your opinion of how the program is functioning.**

9. Who all do you work with in administering EUSP? (Probe for range of market actors: utilities, OHEP, the PSC, other agencies.)

10. Have you encountered or are you encountering any specific difficulties with working with any of the groups we discussed above? (Probe on consistency, efficiency of delivery and QC.)
11. How is the OHEP information system helping you in administering the program? Hindering your administration of the program?
12. Have you encountered or are you encountering any difficulties in program payment or the service delivery process?
13. How adequate is training and technical support?
14. What do you think is working best for each of the program's bill payment and arrearage reduction components?
15. What do you think is most in need of improvement in each of the program's components?
16. Are there any other program delivery mechanisms you think should be explored?
17. Are there any state or federal regulations that hamper your ability to provide this program to the people who need it?

**IV. Performance Measures**

18. What do you think is the program's impact on a client's ability to sustain payment of home energy bills?
19. What do you think is the program's impact on clients' lives (including non-energy areas)?
20. How effective do you think the program is in targeting and servicing those who are vulnerable or have a high electric burden?

**V. Finally, I would like to discuss the evaluation process with you. Explain purpose of evaluation again and type of data planned on being collected.**

21. What additional issues would you like to see the evaluation address?
22. What data would you like to see the evaluation collect?

## D.4 STAKEHOLDER INTERVIEW

### ELECTRIC UNIVERSAL SERVICE PROGRAM (EUSP) EVALUATION Program Stakeholders Interview Protocol 2004

#### Interview Objectives:

- Characterize stakeholder interactions with EUSP
  - Gather specific process information for EUSP
  - Identify additional issues that should be incorporated into the evaluation process evaluation and customer surveys
- 

#### I. Introduction

First, I would like to get an understanding of your agency or program.

1. What are the objectives of your agency/program? Who are your main target customers?
2. How does your agency/program interact with EUSP?
3. How is this interaction important to your agency/program's goals that we previously discussed?
4. Who all do you work with that is involved with EUSP (Probe for range of market actors: utilities, the PSC, OHEP, etc.) How would you characterize your relationship with these various organizations?

#### VI. Program procedures

5. How would you characterize EUSP outreach efforts? How effective do you think these outreach efforts are? How does your agency/program try to build upon existing outreach efforts?
6. How do you think the program could more effectively target low-income households with high electric burdens?
7. Do you think that customer education components could be an important part of EUSP (e.g., budget counseling, financial management, energy efficiency information)? Why? If yes, what types of customer education would you like to see the program offer?

*D: Data Collection Instruments...*

8. How well do you think EUSP coordinates with other assistance programs to best meet customers' energy needs? How would you like to see this coordination improve?
9. What do you think is working best in the program?
10. What do you think is most in need of improvement?
11. Are there any other program delivery mechanisms you think should be explored?

VII. Program Impacts

12. What do you perceive to be the primary benefits of EUSP to customers?
  - Do you believe the program is helping customers to improve their payment of electric bills?
  - Do you feel this service helps most, some or none of your customers to become more self-sufficient in meeting their household electric needs?
  - What impacts, if any, do you see EUSP having on customers' lives?

VIII. Finally, I would like to discuss the evaluation process with you. (EXPLAIN PURPOSE OF EVALUATION AGAIN AND TYPE OF DATA PLANNED ON BEING COLLECTED.)

13. What additional issues would you like to see the evaluation address?
14. What data would you like to see the evaluation collect?

## **D.5 PARTICIPANT SURVEY**

The following pages contain the participant survey.

### **Introduction to and Layout of the EUSP Participant Survey**

The survey interviews participants who were new EUSP enrollees in Program Year (PY) 2005 (July 1, 2004 – June 30, 2005). They did not participate in prior years and are a subset of the impact evaluation new participant sample. The survey will be conducted in January – February 2006, which is half way through PY 2006 (July 1, 2005 – June 30, 2006). Therefore, at the time of survey implementation, participants may or may not have re-enrolled in the program in PY 2006. There will be additional questions based on whether the household has re-applied for benefits in PY 2006 or not. In addition, we will do more in-depth interviewing of a sub-set of 20 respondents to gather richer qualitative data about the program processes and impacts. These additional questions are noted with a preceding QL through out the survey instrument.

Question series are ordered as followed:

- a. Introduction
- b. PY 2005 EUSP participant questions (P05 series)
- c. PY 2006 EUSP participant questions (P06 series)
- d. PY 2006 EUSP non-participant questions (PY 2005 participants who have not and are not planning to apply for benefits in PY 2006, NP series)
- e. Overall program participant questions (OP series)
- f. Electric use questions (E series)
- g. Bill payment questions (B series)
- h. Economic hardship questions (H series)
- i. Demographic questions (D series)

**NOTE** – *Interviewer instructions are in brackets [ ]*.

**NOTE** – *Response categories are never read unless the question has an instruction to specifically read the response categories.*

**NOTE** – *DK = Don't know, R = Refused, NA = Not applicable*

## Introduction

Intro. Hello, my name is [interviewer name], and I'm calling on behalf of the Electric Universal Service Program - the Electric Assistance program administered by the Maryland Office of Home Energy Programs and [local administering agency name]. May I speak with [sample name]?

- |   |     |                |
|---|-----|----------------|
| 1 | Yes | [GO TO INTRO2] |
| 2 | No  | [CONTINUE]     |

Intro1. Is there another adult in the household who is knowledgeable about your household's experience with the Electric Assistance Program or your household's electric bills?

- |   |     |   |
|---|-----|---|
| 1 | Yes | [CONTINUE]                                    |
| 2 | No  | [SCHEDULE CALLBACK AND/OR ATTEMPT TO CONVERT] |

Intro2. I'm with PA Government Services, an independent research firm. We are assisting the State of Maryland in evaluating their Electric Assistance. You should have received a postcard a couple of weeks ago explaining the purpose of this call.

I'm not selling anything or asking you to sign-up for anything; I'd just like to ask you some questions about your experience with Electric Assistance and your home's electricity use. I'd like to assure you that your responses will be kept confidential and your name will not be revealed to anyone.

**(Why are you conducting this study)** Studies like this help the state better understand households' awareness of, satisfaction with and need for energy programs like this.

**(Timing)** This survey should take 20 minutes of your time. Is this a good time for us to speak with you? IF NOT, SET UP CALL BACK APPOINTMENT OR OFFER TO LET THEM CALL US BACK AT 1-800-XXX-XXXX.

**(Sales concern)** I am not selling anything or asking you to sign-up for anything; we would simply like to learn about your experience with Electric Assistance, your household's quality of life, and your home's comfort, safety, and electric use. This information will help the State of Maryland to improve services and provide energy programs to assist residential customers like yourself. Your responses will be kept confidential by our firm. If you would like to talk with someone about this study, feel free to call the state home energy office at 410-767-7218

<b>PY 2005 EUSP Program Information</b>
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P05\_1 How did you first hear about Electric Assistance? [DO NOT READ, RECORD ALL THAT APPLY]

- 1 Utility company representative
- 2 Utility bill insert
- 3 Friend or neighbour
- 4 Relative
- 5 Landlord
- 6 Office of People's Council
- 7 Local fuel fund
- 8 Community agency/social service office [SPECIFY]
- 9 Application Fair/Expo
- 10 Radio advertisement
- 11 Television advertisement
- 12 Newspaper advertisement
- 13 Flyers
- 14 On-site visit
- 15 Children's school
- 16 Referral from other program [SPECIFY]
- 17 Other [SPECIFY]
- D Don't know

**I would like to begin by asking you a few questions about your experience and satisfaction with the program the first time you applied and received benefits, approximately a year ago.**

P05\_2 What is the main reason why you first decided to apply for Electric Assistance in [APPLICATION MONTH/YEAR FROM PY2005]? [DO NOT READ, RECORD ALL THAT APPLY.]

- 1 Wanted help paying electric bill
- 2 Had utility debt (eg., arrearage, owed money for back bills)
- 3 Didn't want to get disconnected
- 4 Applying for heating assistance and also received electric assistance
- 5 Wanted help so could meet other type of expense (SPECIFY expense: \_\_\_\_\_)
- 6 Wanted to be able to adequately heat and light home
- 7 Have limited/low income
- 8 Formed a new household and needed assistance
- 9 Other [SPECIFY]
- D Don't know

P05\_3 What is the main reason why you did not participate in Electric Assistance before [APPLICATION DATE FROM PY2005]? [DO NOT READ. RECORD ALL THAT APPLY.]

- 1 Household received assistance from another source

- 2 Felt that household was financially more capable
- 3 Employment situation changed in household
- 4 Didn't believe would qualify for Energy Assistance
- 5 Household did apply, but didn't receive benefits before
- 6 Was not aware of the program
- 7 Didn't want to do budget billing
- 8 Didn't want to receive financial assistance
- 9 Didn't live in Maryland
- 10 Was part of another household so didn't need assistance
- 11 Not eligible (ASK WHY THEY WERE NOT ELIGIBLE.)
- 12 Situation changed in general (ONLY USE IF PROBE AND CAN'T GET MORE SPECIFIC ANSWER)
- 13 Other (SPECIFY)

P05\_4 When you applied for Electric Assistance in [APPLICATION DATE FROM PY2005], how did you submit your application?

- 1 Through the mail
- 2 In-person at local agency office
- 3 At an Energy Expo or Application Fair
- 4 At an outreach site (senior citizen center, local firehouse, HeadStart, etc.) [RECORD LOCATION:\_\_\_\_\_]
- 5 Through a house visit / someone came to me
- 6 Other [SPECIFY:\_\_\_\_\_]

P05\_5 Now I would like to ask you about your satisfaction with the Electric Assistance program the first year you participated. On a scale of 1 to 5, where 1 is "not at all satisfied" and 5 is "very satisfied", how satisfied were you with...[RECORD 'D' FOR DON'T KNOW AND 'N' FOR NOT APPLICABLE] [ROTATE LIST]

- \_\_\_\_\_ How easy it was to fill out the application
- \_\_\_\_\_ The helpfulness of staff in completing the application
- \_\_\_\_\_ Information you received explaining the program
- \_\_\_\_\_ The amount of electric assistance you received
- \_\_\_\_\_ [IF RECEIVED ARREARAGE FORGIVENESS] the amount of past energy debt, or arrears, that were paid off by the program
- \_\_\_\_\_ The time it took to be notified that you received assistance
- \_\_\_\_\_ The requirement to participate in a monthly budget billing plan
- \_\_\_\_\_ The way your average monthly payment is shown on your electric bill
- \_\_\_\_\_ The program overall

P05\_6 (IF NOT SATISFIED, P05\_5=1, 2 OR 3 TO ANY OF THE ABOVE) You said you were dissatisfied with some parts of the program. I am going to read possible changes the program could make and would like you to tell me whether this change would have increased your satisfaction with the program or not change your satisfaction. Would your satisfaction have increased or not changed if the program provided . . . [ROTATE LIST]

- \_\_\_\_\_ More helpful and accessible agency staff
- \_\_\_\_\_ A less difficult application process
- \_\_\_\_\_ More information about the program
- \_\_\_\_\_ More information about ways to reduce energy use
- \_\_\_\_\_ More assistance in budgeting
- \_\_\_\_\_ More or better referrals to other assistance programs
- \_\_\_\_\_ More flexibility in paying your monthly bill amount
- \_\_\_\_\_ Easier to understand information on utility bill
- \_\_\_\_\_ Quicker credit toward your utility bill

### PY 2006 EUSP Program Information

**P06\_1. [IF CUSTOMER HAS NOT RE-APPLIED FOR PROGRAM IN PY 2006].**

Our records indicate that your household has **not** yet applied to receive Electric Assistance this program year. Is this correct?

- 1 Yes, I or a member of my household has not applied to EUSP this program year **[Skip to NP series]**
- 2 No, I just applied
- 3 No, another member of my household applied
- D DK

**Now I would like to ask you about your participation in and satisfaction with Electric Assistance since you applied in [APPLICATION MONTH YEAR FROM PY2006 DATABASE] [IF P06\_1=2 OR 3, most recently].**

**P06\_2** When you applied for Electric Assistance in [APPLICATION DATE FROM PY2006], how did you submit your application?

- 1 Through the mail
- 2 In-person at local agency office
- 3 At an Energy Expo or Application Fair
- 4 At an outreach site (senior citizen center, local firehouse, HeadStart, etc.) [RECORD LOCATION:\_\_\_\_\_]
- 5 Through a house visit / someone came to me
- 6 Other [SPECIFY:\_\_\_\_\_]

**P06\_3** Was your experience with the program this year much better, somewhat better, about the same, somewhat worse or much worse than the first year you participated?

- 1 Much better
- 2 Somewhat better
- 3 About the same
- 4 Somewhat worse
- 5 Much worse

P06\_4a (IF BETTER) Why did you have a better experience with the program this year? [RECORD VERBATIM.]

P06\_4b (IF WORSE) Why did you have a worse experience with the program this year? [RECORD VERBATIM.]

**Non Participants**  
**PY 2005 Participants who have not applied in PY 2006 (PO6\_1=1) Only**

NP1. [IF P06\_1=1 OR DK] Do you plan on applying for Electric Assistance before this program year ends on June 30, 2006?

- 1 Yes
- 2 No **Skip to NP2**
- 3 Maybe

NP1a. [If NP=1 or 3] Why haven't you applied for Electric Assistance yet this program year? [DO NOT READ; RECORD ALL THAT APPLY]

- 1 Haven't had time
- 2 Forgot to apply
- 3 Lost application
- 4 Hard to get to agency to fill out application
- 5 I tried to apply but I could not get an appointment
- 6 I didn't receive an application in the mail
- 7 I don't know where to apply
- 8 Income has been too high to-date / seasonal employment
- 9 I'm still receiving benefits from last year
- 10 My old past due amount was paid off last year
- 11 I have a credit on my bill from participating last year
- 12 Missed Application Fair or other outreach event
- 13 Don't have the necessary information
- 14 Other (Please specify:\_\_\_\_\_)

**Skip Directive: If NP=1 or 3, go to OP series.**

NP2 [If NP1=2] What are the reasons that your household is not planning to apply for Electric Assistance benefits this year? [RECORD ALL THAT APPLY.]

- 1 Household received assistance from another source
- 2 Felt that household was financially more capable this year
- 3 My bills are lower and I have been able to pay them

- 4 The winter weather was mild, resulting in bills I could pay
- 5 I do not think I am eligible this year because my income is higher
- 6 My old past due bill was paid off last year so I no longer need help.
- 7 The grants are lower this year so it is not worth the trouble to apply.
- 8 I had to wait so long last year to receive my grant that it is not worth it to apply this year.
- 9 I have a credit on my bill so I do not need help this year.
- 10 With my payments on budget billing, I am now able to afford my bill so I do not need help right now.
- 11 Employment situation changed in household (SPECIFY CHANGE)
- 12 Didn't believe would qualify for Electric Assistance this year
- 13 Don't want to do budget billing again
- 14 I planned to apply but I just don't have time.
- 15 I didn't receive an application in the mail this year.
- 16 It is too much trouble to apply.
- 17 The place to apply is too far away.
- 18 I do not know where to apply.
- 19 Didn't like participating in program last year (PROBE WHY?)
- 20 Situation changed in general (ONLY USE IF PROBE AND CAN'T GET MORE SPECIFIC ANSWER)
- 21 Other (SPECIFY)

NP3 Would you apply for Electric Assistance benefits again if the need arose?

- 1 Yes
- 2 No

**NPs continue with OP series**

### Overall Program Information

QL\_OP1. [FOR RANDOM SAMPLE OF QUALITATIVE INTERVIEWS]. Could you please explain to me how your monthly electric payment plan or budget billing works? {Note: This question is to gauge customer understanding of budget billing}

QL\_OP2. [FOR RANDOM SAMPLE OF QUALITATIVE INTERVIEWS]. What do you like most about the program's budget billing component?

QL\_OP3. [FOR RANDOM SAMPLE OF QUALITATIVE INTERVIEWS]. What do you like least about the program's budget billing component?

QL\_OP4. [FOR RANDOM SAMPLE OF QUALITATIVE INTERVIEWS]. What could make it easier for you to understand your monthly budget billing payment amount?

OP2 When participating in Electric Assistance, did you receive information on how to reduce energy use?

- 1 Yes

- 2 No (Skip to OP2C)  
 D Don't know (Skip to OP2C)

OP2meth How was that information presented to you? Did...

A representative gave you a brochure to read through?	1 Yes 2 No D Don't know
A representative discussed with you ways to save energy in your home?	1 Yes 2 No D Don't know
Anything else I didn't mention?	1 Yes – [SPECIFY] 2 No D Don't know

OP2A [IF OP2=1] On a scale of 1 to 5 where 1 is “not at all useful” and 5 is “very useful”, how useful did you find the energy use information you received as part of the program?

\_\_\_\_\_ Don't know

OP2B [IF OP2=1] Have you made any changes in the way you use energy around the house as a result of this information.

- 1 Yes (Could you please tell me how? \_\_\_\_\_)  
 2 No

### SKIP TO OP3

OP2C On a scale from 1 to 5, where 1 is “not at all interested” and 5 is “very interested,” how interested would you be in receiving information on ways to reduce your household’s energy use as part of the program?

\_\_\_\_\_ Don't know

OP3 When participating in Electric Assistance, have you ever received information on ways to establish a budget or manage your money to help you make your utility payment?

- 1 Yes  
 2 No (Skip to OP3C)  
 D Don't know (Skip to OP3C)

OP3meth How was that information presented to you? Did...

A representative give you a brochure or packet to read through?	1 Yes 2 No D Don't know
A representative discuss with you	1 Yes

ways to manage or budget your money to meet your monthly utility bills?	2 No D Don't know
Anything else I didn't mention?	1 Yes – [SPECIFY] 2 No D Don't know

OP3A [IF OP3=1] On a scale of 1 to 5 where 1 is “not at all useful” and 5 is “very useful”, how useful did you find the money management or budget information you received as part of the program?

\_\_\_\_\_ D Don't know

OP3B [IF OP3=1] Have you made any changes in the way you manage your budget as a result of this information?

- 1 Yes (Could you please tell me how? \_\_\_\_\_)  
2 No

#### **SKIP TO QL\_OP5**

OP3C On a scale from 1 to 5, where 1 is “not at all interested” and 5 is “very interested,” how interested would you be in receiving information on ways to manage your household’s budget as part of the program?

\_\_\_\_\_ D Don't know

QL\_OP5. [FOR RANDOM SAMPLE OF QUALITATIVE INTERVIEWS]. What have been the most important benefits of the Electric Assistance Program to you and your household?

#### **Electric Use**

E1 Can you tell me what types of actions, if any, that your household has taken to save energy or reduce your electric bills. Have you . . . ?

a. Lowered your heating system thermostat	1 yes	2 no	d DK	r R	n NA
b. Lowered your water heater temperature	1 yes	2 no	d DK	r R	n NA
c. Washed laundry in cold water	1 yes	2 no	d DK	r R	n NA
d. Used drapes or window coverings	1 yes	2 no	d DK	r R	n NA
e. Used air conditioning less or used fans more	1 yes	2 no	d DK	r R	n NA
f. Turned off appliances when not in use	1 yes	2 no	d DK	r R	n NA
g. Turned off lights when not in use	1 yes	2 no	d DK	r R	n NA

h. Anything else? [IF YES, SPECIFY]	1 yes	2 no	d DK	r R	n NA
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### Bill Payment

Next, we would like to ask you a few questions about your electric bills.

B1 Other than what you owe for THIS MONTH'S electric bill, do you owe any money for your electric bill for previous months?

- 1 Yes
- 2 No (Skip to B2)
- D Don't know (Skip to B2)

B1A [If B1=1] Not including this month's bill, about how much altogether do you owe from previous months for electric bills?

\$\_\_\_\_\_

B2 Think back to a year ago, before you participated in Electric Assistance, did you owe any money for back months on electric bills?

- 1 Yes
- 2 No
- D Don't know

B2a [If B1=1 and B2=1] Would you say the past-due amount you owe on your electric bill this year is less, about the same, or more than the past-due amount you owed before you participated in Electric Assistance?

- 1 Less
- 2 The same
- 3 More
- D Don't know

B3 In the last five years, have you ever had your electricity turned off for lack of payment or because payments were late?

- 1 Yes (How many times? \_\_\_\_\_)
- 2 No
- D Don't know or not sure

B3a [If B3=1] Since participating in Electric Assistance, has the number of times your electric service been disconnected decreased, stayed the same, or increased?

- 1 Decreased
- 2 Stayed the same
- 3 Increased
- D Don't know/not sure

B4 When thinking about your household's electric bills in the last two years, which of the following statements best describes your situation. Does your household...?

- 1 Pay all electric bills on time,
- 2 Pay only some electric bills on time
- 3 Pay no electric bills on time
- 6 Other [SPECIFY]
- D Don't know or not sure

B5 If you had not participated in Electric Assistance, do you think your household would be paying fewer, the same amount, or more electric bills on time?

- 1 Pay fewer bills on time
- 2 Pay the same amount of bills on time
- 3 Pay more bills on time
- 4 Other [SPECIFY]
- D Don't know or not sure

### Economic Hardship

ECON Next, I would like to ask you some questions about your household. I understand that these are personal questions, but your honest responses are extremely important to us in evaluating the effectiveness of Electric Assistance in providing your household with the assistance it needs.

H1 I'm going to read several types of expenses you might have in your household. For each one, please tell me how concerned you are with meeting each expense on a scale of 1 to 5, with 1 meaning "not at all concerned" and 5 meaning "very concerned". How concerned are you with meeting. . . . ? [READ EACH ITEM.]

	1	2	3	4	5	NA	DK	REF
a. Medical and health expenses	1	2	3	4	5	6	D	R
b. Winter heating costs	1	2	3	4	5	6	D	R
c. Monthly electric costs	1	2	3	4	5	6	D	R
d. Mortgage or rent	1	2	3	4	5	6	D	R

e. Food expenses	1	2	3	4	5	6	D	R
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H2 Before you participated in Electric Assistance, were you more concerned, less concerned, or did you have the same amount of concern about meeting . . . ?  
[ASK FOR EACH EXPENSE THAT WAS APPLICABLE IN H1]

H3 I'm going to read a list of programs that provide assistance to families. For each one, please tell me if you or anyone in your household received help from that program in the past two years. Did you or anyone in your household... [READ CATEGORIES BELOW AND RECORD ANSWER.]  
[ROTATE LIST]

a. Receive food stamps?	1 yes	2 no	d DK	r R
b. Receive cash payments from TANF (Temporary Assistance for Needy Families)	1 yes	2 no	d DK	r R
c. Participate in WIC, also known as the Women, Infant, and Children Program	1 yes	2 no	d DK	r R
d. Receive Medical Assistance (MA, Medicaid, or Title 19)	1 yes	2 no	d DK	r R
e. Receive assistance from the government in paying for your housing? [For example, did you receive a rent subsidy or pay a lower rent because the government pays part of the cost?] (IF ASK FOR CLARIFICATION: Section 8, Section 12)	1 yes	2 no	d DK	r R

H4 Over the past 24 months have you received any money or help from any organization or individual to help pay your utility bills other than any of the services I just read to you?

- 1 Yes
- 2 No (Skip to H7)
- D Don't know or not sure (Skip to H7)

H5 What would you estimate was the total amount of money you received from all sources other than Electric Assistance and the Maryland Energy Assistance Program in the last 24 months to help pay your utility bills?

- 1 Response in dollars: \$ \_\_\_\_\_ - if none, enter 0
- R Prefer not to answer/Refuse
- D Don't know or not sure

H6 (If response 1 in B7 has a dollar value greater than \$20.00) Where was this money received from? [RECORD ALL THAT APPLY]

- 1 A local non-profit type organization such as a church, club or community group
- 2 A governmental organization such as the city, county, state or federal government
- 3 A friend, neighbour, or relative
- 4 Your utility company
- 5 Other person or organization
- 6 Fuel fund
- 7 Prefer not to answer
  
- D Don't know or not sure

H7 In the last two years, did you or other household members make changes in your spending or lifestyle to reduce the size of your household bills?

- 1 Yes
- 2 No (Skip to D1)
- D Don't know (Skip to D1)

H7a [If H7=1] What types of changes did you make? [RECORD ALL THAT APPLY. PROBE FOR ADDITIONAL ANSWERS]

- 1 Cut back on food
- 2 Cut back on clothing
- 3 Cut back on medical care
- 4 Cut back on automobile use
- 5 Cut back on recreation/vacations
- 1 Cut back on energy consumption
- 2 Cut back on entertainment
- 7 Other [SPECIFY]
- D Don't know

H7b [If H4=1] Has your participation in Electric Assistance improved this situation?

- 1 Yes
- 2 No
- D Don't know

### Demographics

D1. What is the highest level of school you completed or the highest degree you received? (FROM CPS)

- 1 1 To 11
- 2 12th Grade No Diploma
- 3 High School Graduate Or Equivalent (Ged)
- 4 Some College Or Technical School But No Degree
- 5 Associate/2-Year Degree In College (Includes Technical School)
- 6 Bachelor's Degree
- 7 Graduate Degree
- D Don't know
- Refused

D2. Do you rent or own your home?

D2a. IF OWN, In what year was your home built?

- 1 1990 or later (CPS is 4/1/90 or later)
- 2 1985 to 1989
- 3 1980 to 1984
- 4 1970 to 1979
- 5 1960 to 1969
- 6 1950 to 1959
- 7 1940 to 1949
- 8 1939 or earlier
- D Don't know

D3. Including yourself, how many people have lived in your household for the past 12 months?

\_\_\_\_PEOPLE

D4. How much does your household pay for monthly [IF RENT] rent [IF OWN] mortgage, including property taxes?

- Enter rent/mortgage: \$\_\_\_\_\_ [IF DON'T PAY ANY, PUT IN \$0]
- D Don't know
  - R Refused

D4A [IF RENT] Not including what you will owe for THIS MONTH's rent, do you owe rent payments for any previous months at your current address?

- 1 Yes
- 2 No
- D Don't know
- R Refused

D4B [IF OWN] Not including what you will owe for THIS MONTH's mortgage do you owe payments for any previous months at your current address?

- 1 Yes
- 2 No
- D Don't know

R Refused

D5. Are you currently. . . ?

- 1 Married
- 2 Widowed
- 3 Divorced
- 4 Separated
- 5 Never married
- R Refused

D6. During the last month, did anyone in your household receive paid employment?

- 1 Yes
- 2 No (Skip to D6C)
- R Refuse (Skip to D7)

D6A. [if D6=1] How many adults worked last month?

\_\_\_\_\_ADULTS

[IF D6A>2, SHOW SCRIPT: THE NEXT TWO QUESTIONS ASK ABOUT HOURS WORKED DURING THE LAST MONTH. PLEASE REFER TO THE TWO ADULTS WHO WORKED THE MOST HOURS.]

D6B1. On average, how many hours per week did the FIRST adult work?

\_\_\_\_\_HOURS

D6B2. (Ask if D6A>1) On average, how many hours per week did the SECOND adult work?

\_\_\_\_\_HOURS

D7 During the past 12 months, did you [and your spouse if married] usually carry a balance on any of your credit cards from one month to the next or did you usually pay off the balance on all your credit cards at the end of the month? [INTERVIEWER NOTE: RECORD "CARRY BALANCE" IF THEY CARRIED ANY BALANCE ON ANY CREDIT CARDS]

- 1 Carry balance
- 2 Pay off at end of month
- D Don't know
- R Refused
- N No credit card

D7a [if D7=1] Not including what you owe for this month's credit card bills, do you currently owe more than \$500 for credit card bills from previous months?

- 1 Yes
- 2 No
- D Don't know
- R Refused

D8 Do you currently owe more than \$250 for medical bills, including doctor or dentist bills, prescription drug payments, or hospital fees?

- 1 Yes
- 2 No
- D Don't know
- R Refused

D9 Do you have a checking account, a savings account, or both?

- 1 Checking account
- 2 Savings account
- 3 Both
- 4 Neither
- D Don't know
- R Refused

D10a [if D10=1, 2 or 3] At the end of the month, do you USUALLY have less than \$100, between \$100 and \$250, between \$250 and \$500, between \$500 and \$1,000, or more than \$1,000 in (your checking account/your savings account/your checking and savings accounts combined)?

- 1 Less than \$100
- 2 Between \$100 and \$250
- 3 Between \$250 - \$500
- 4 Between \$500 and \$1,000
- 5 Greater than \$1,000
- D Don't know
- R Refused

ANY\_COM Those are all the questions I have for you. Do you have any additional comments you would like me to note?

- 1 Yes [RECORD VERBATIM]
- 2 No

End. THOSE ARE ALL THE QUESTIONS I HAVE FOR YOU. THANK YOU FOR YOUR TIME.

*NOTE TO INTERVIEWERS: IF RESPONDENT WANTS MORE INFORMATION ABOUT THE ELECTRIC ASSISTANCE PROGRAM, THEY SHOULD CONTACT THE OFFICE OF HOME ENERGY PROGRAMS OR SOCIAL SERVICES IN THEIR COUNTY OF RESIDENCE.*

## **D.6 NONPARTICIPANT SURVEY**

The following pages contain the nonparticipant survey.

**Introduction to and Layout of the EUSP Nonparticipant Survey**

The survey interviews low-income customers who have not participated in EUSP since the program began in 2000.

Question series are ordered as followed:

- a. Introduction and Screener
- b. EUSP nonparticipant questions
- c. Attitudinal Questions (A series)
- d. Electric use questions (E series)
- e. Bill payment questions (B series)
- f. Economic hardship questions (H series)
- g. Demographic questions (D series)

**NOTE** – Interviewer instructions are in brackets [ ].

**NOTE** – Response categories are never read unless the question has an instruction to specifically read the response categories.

**NOTE** – DK = Don't know, R = Refused, NA = Not applicable

**Introduction and Screener**

Intro. Hello, my name is [interviewer name], and I'm calling on behalf of the Maryland Office of Home Energy Programs. May I speak with [sample name if available]?

- |   |     |                |
|---|-----|----------------|
| 1 | Yes | [GO TO INTRO2] |
| 2 | No  | [CONTINUE]     |

Intro1. Is there another adult in the household who is knowledgeable about your household's electric bills?

- |   |     |   |
|---|-----|---|
| 1 | Yes | [CONTINUE]                                    |
| 2 | No  | [SCHEDULE CALLBACK AND/OR ATTEMPT TO CONVERT] |

Intro2. I'm with PA Government Services, an independent research firm. We are assisting the State of Maryland in evaluating some of the services they offer to households. You should have received a postcard a couple of weeks ago explaining the purpose of this call.

I'm not selling anything; I'd just like to ask you some questions about your home's comfort, safety and energy efficiency. I'd like to assure you that your responses will be kept confidential and your name will not be revealed to anyone.

**(Why are you conducting this study)** Studies like this help the state better understand households' awareness of and needs for state programs.

**(Timing)** This survey should take 10 minutes of your time. Is this a good time for us to speak with you? IF NOT, SET UP CALL BACK APPOINTMENT OR OFFER TO LET THEM CALL US BACK AT 1-800-XXX-XXXX.

**(Sales concern)** I am not selling anything; we would simply like to learn about your household's quality of life, and your home's comfort, safety, and electric use. This information will help the state best design and deliver electric programs to assist residential customers like yourself. Your responses will be kept confidential by our firm. If you would like to talk with someone about this study, feel free to call the state home energy office at 410-767-7218

**(Incentive)** We will mail you \$5 to thank you for completing this study.

**EUSP Nonparticipant Questions**

P1 The State of Maryland offers an electric assistance program called the Electric Universal Service Program. This program provides financial assistance to help households meet their monthly electric bills. As part of this financial assistance, participants are placed on a monthly electric bill payment plan. The program may also pay your past-due electric payments, or arrears, one time. Were you aware of this program before you were contacted to complete this study [Interviewer note: if they learned of the program through the advanced postcard we sent them they were not aware of the program before this study]?

- 1 Yes
- 2 No [SKIP TO P4]
- D Don't know [SKIP TO P4]

P1a Have you received benefits from Electric Assistance this year?

- 1 Yes [THANK THEM FOR THEIR TIME AND TERMINATE SURVEY].
- 2 No
- 3 D Don't know

P2 [if P1=1] How did you first hear about Electric Assistance? [DO NOT READ, RECORD ALL THAT APPLY]

- 1 Utility company representative
- 2 Utility bill insert
- 3 Friend, neighbor
- 4 Relative
- 5 Landlord
- 6 Office of People's Counsel
- 7 Local fuel fund
- 8 Community agency/social service office [SPECIFY]
- 9 Application Fair/Expo
- 10 Radio advertisement
- 11 Television advertisement
- 12 Newspaper advertisement
- 13 Flyers
- 14 On-site visit
- 15 Children's school
- 16 Referral from other program [SPECIFY]
- 17 Other [SPECIFY]
- D Don't know

P3 [if P1=1] What is the main reason why you have not participated in Electric Assistance before? [DO NOT READ, RECORD ALL THAT APPLY.]

- 1 Household received assistance from another source
- 2 Felt that household was financially more capable

- 3 Employment situation changed in household
- 4 Didn't believe would qualify for Energy Assistance
- 5 Household did apply, but didn't receive benefits before
- 6 Was not aware of the program
- 7 Didn't want to do budget billing
- 8 Didn't want to receive financial assistance
- 9 Didn't live in Maryland
- 10 Was part of another household so didn't need assistance
- 11 Situation changed in general (ONLY USE IF PROBE AND CAN'T GET MORE SPECIFIC ANSWER)
- 12 Other (SPECIFY)

P4 On a scale of 1 to 5 where 1 is "not at all likely" and 5 is "very likely," how likely are you to apply for Electric Assistance in the next 12 months? \_\_\_\_\_  
[RECORD D FOR DON'T KNOW]

P5 [IF P4=4 OR 5] Why would you be likely to participate in Electric Assistance in the next 12 months? [DON'T READ, INDICATE ALL THAT APPLY.]

- 1 Cost of electricity and gas is increasing and I may need help
- 2 I know someone who is participating in the program
- 3 Want help paying electric bill
- 4 Want to pay off utility debt
- 5 Want to reduce utility bill
- 6 Don't want to get disconnected
- 7 Want to learn how to save electric
- 8 Want help so can meet other type of expense / have enough money for other necessities (SPECIFY expense:\_\_\_\_\_)
- 9 Have limited/low income
- 10 Other [SPECIFY]
- D Don't know

P6 [IF P4=1 OR 2] Why would you **not** be likely to participate in Electric Assistance in the next 12 months? [INDICATE ALL THAT APPLY.]

- 1 Don't want/need help paying electric bill
- 2 Don't want to take government money
- 3 I am able to pay my bills myself
- 4 It is embarrassing to apply
- 5 I am receiving financial assistance from another source (note: we ask about this later.)
- 6 Too difficult to apply (Probe: What about applying would be difficult for your household?\_\_\_\_\_)
- 7 Other [SPECIFY]
- D Don't know

### Attitudinal Questions

A1 We are interested in some of your feelings about programs like Electric Assistance that I described earlier. I am going to read to you some statements. For each one, please tell me whether you definitely agree, probably agree, probably disagree, or definitely disagree.

- 1 definitely agree
- 2 probably agree
- 3 probably disagree
- 4 definitely disagree
- D Don't know

a. I would rather ask friends or relatives for help than apply for government programs like Electric Assistance	DA 1 PA 2 PD 3 DD 4 DK D
b. My electricity bills are high enough that I would take any kind of help that I could get	DA 1 PA 2 PD 3 DD 4 DK D
c. There should be more programs like this to help people pay other bills like rent, mortgage or food bills	DA 1 PA 2 PD 3 DD 4 DK D
d. If people could just do without a few things, they should be able to have enough to pay their electric bill without getting help from government-run programs	DA 1 PA 2 PD 3 DD 4 DK D
e. As long as assistance programs like these are around, people are going to apply for it, so I might as well apply for it too	DA 1 PA 2 PD 3 DD 4 DK D
f. I would rather go without some other things or keep my electricity use to a minimum rather than apply for government programs like Electric Assistance	DA 1 PA 2 PD 3 DD 4 DK D

### Electric Use

E1 Can you tell me what types of actions, if any, that your household has taken to save energy or reduce your electric bills. Have you . . . ?

a. Lowered your heating system thermostat	1 yes	2 no	d DK	r R	n NA
b. Lowered your water heater temperature	1 yes	2 no	d DK	r R	n NA
c. Washed laundry in cold water	1 yes	2 no	d DK	r R	n NA
d. Used drapes or window coverings	1 yes	2 no	d DK	r R	n NA

e. Used air conditioning less or used fans more	1	yes	2	no	d	DK	r	R	n	NA
f. Turned off appliances when not in use	1	yes	2	no	d	DK	r	R	n	NA
g. Turned off lights when not in use	1	yes	2	no	d	DK	r	R	n	NA
h. Anything else? [IF YES, SPECIFY]	1	yes	2	no	d	DK	r	R	n	NA

### Bill Payment

Next, we would like to ask you a few questions about your electric bills.

B1 Other than what you owe for THIS MONTH'S electric bill, do you owe any money for your electric bill for previous months?

- 1 Yes
- 2 No (Skip to B3)
- D Don't know (Skip to B3)

B1A [If B1=1] Not including this month's bill, about how much do you owe from previous months electric bills?

\$\_\_\_\_\_

B2 Thinking back to a year ago, did you owe any money for back months on electric bills?

- 1 Yes
- 2 No
- D Don't know

B2a [If B1=1 and B2=1] Would you say the past-due amount you owe on your electric bill this year is less, about the same, or more than the past-due amount you owe now?

- 1 Less
- 2 The same
- 3 More
- D Don't know

B3 In the last five years, have you ever had your electricity turned off for lack of payment or because payments were late?

- 1 Yes (How many times? \_\_\_\_\_)
- 2 No
- D Don't know or not sure

B4 When thinking about your household's electric bills in the last two years, which of the following statements best describes your situation. Does your household...?

- 1 Pay all electric bills on time,
- 2 Pay only some electric bills on time
- 3 Pay no electric bills on time
- 4 Other [SPECIFY]
- D Don't know or not sure

### Economic Hardship

ECON Next, I would like to ask you some questions about your household. I understand that these are personal questions, but your honest responses are extremely important to us in evaluating the effectiveness of Electric Assistance in providing your household with the assistance it needs.

H1 I'm going to read several types of expenses you might have in your household. For each one, please tell me how concerned you are with meeting each expense on a scale of 1 to 5, with 1 meaning "not at all concerned" and 5 meaning "very concerned". How concerned are you with meeting. . . ? [READ EACH ITEM.]

	1	2	3	4	5	NA	DK	REF
a. Medical and health expenses	1	2	3	4	5	6	D	R
b. Winter heating costs	1	2	3	4	5	6	D	R
c. Monthly electric costs	1	2	3	4	5	6	D	R
d. Mortgage or rent	1	2	3	4	5	6	D	R
e. Food expenses	1	2	3	4	5	6	D	R

H2 Approximately 24 months ago, were you more concerned, less concerned, or did you have the same amount of concern about meeting . . . ? [ASK FOR EACH EXPENSE THAT WAS APPLICABLE IN H1]

H3 I'm going to read a list of programs that provide assistance to families. For each one, please tell me if you or anyone in your household received help from that program in the past two years. Did you or anyone in your household... [READ CATEGORIES BELOW AND RECORD ANSWER.] [ROTATE LIST]

a. Receive food stamps?	1 yes	2 no	d DK	r R
b. Receive gov cash assistance (TCA, Temporary Assistance, TEMHA, TDAP)	1 yes	2 no	d DK	r R
c. Participate in WIC, also known as the	1 yes	2 no	d DK	r R

Women, Infant, and Children Program	
d. Receive Medical Assistance (MA, Medicaid, or Title 19)	1 yes 2 no d DK r R
e. Receive assistance from the government in paying for your housing? [For example, did you receive a rent subsidy or pay a lower rent because the government pays part of the cost?] (IF ASK FOR CLARIFICATION: Section 8, Section 12)	1 yes 2 no d DK r R

- H4 Over the past 24 months have you received any money or help from any organization or individual to help pay your utility bills other than any of the services I just read to you?
- 1 Yes  
 2 No (Skip to H7)  
 D Don't know or not sure (Skip to H7)
- H5 What would you estimate was the total amount of money you received from all sources in the last 24 months to help pay your utility bills?
- 1 Response in dollars: \$ \_\_\_\_\_ - if none, enter 0  
 R Prefer not to answer/Refuse  
 D Don't know or not sure
- H6 *(If response 1 in B7 has a dollar value greater than \$20.00)* Where was this money received from? [RECORD ALL THAT APPLY]
- 1 A local non-profit type organization such as a church, club or community group  
 2 A governmental organization such as the city, county, state or federal government  
 3 A friend, neighbour, or relative  
 4 Your utility company  
 5 Other person or organization  
 6 Fuel fund  
 7 Prefer not to answer  
 D Don't know or not sure
- H7 In the last two years, did you or other household members make changes in your spending or lifestyle to reduce the size of your household bills?
- 1 Yes  
 2 No (Skip to D1)  
 D Don't know (Skip to D1)

H7a [If H7=1] What types of changes did you make? [RECORD ALL THAT APPLY. PROBE FOR ADDITIONAL ANSWERS]

- 1 Cut back on food
- 2 Cut back on clothing
- 3 Cut back on medical care
- 4 Cut back on automobile use
- 5 Cut back on recreation/vacations
- 1 Cut back on energy consumption
- 2 Cut back on entertainment
- 7 Other [SPECIFY]
- D Don't know

### Demographics

D1. What is the highest level of school you completed or the highest degree you received? (FROM CPS)

- 1 1 To 11
- 2 12th Grade No Diploma
- 3 High School Graduate Or Equivalent (Ged)
- 4 Some College Or Technical School But No Degree
- 5 Associate/2-Year Degree In College (Includes Technical School)
- 6 Bachelor's Degree
- 7 Graduate Degree
- D Don't know
- Refused

D2. Do you rent or own your home?

D2a. IF OWN, In what year was your home built?

- 1 1990 or later (CPS is 4/1/90 or later)
- 2 1985 to 1989
- 3 1980 to 1984
- 4 1970 to 1979
- 5 1960 to 1969
- 6 1950 to 1959
- 7 1940 to 1949
- 8 1939 or earlier
- D Don't know

D3. Including yourself, how many people have lived in your household for the past 12 months?

\_\_\_\_PEOPLE

D4. How much does your household pay for monthly [IF RENT] rent [IF OWN] mortgage, including property taxes?

Enter rent/mortgage: \$\_\_\_\_\_ [IF DON'T PAY ANY, PUT IN \$0]

D Don't know

R Refused

D4A [IF RENT] Not including what you will owe for THIS MONTH's rent, do you owe rent payments for any previous months at your current address?

1 Yes

2 No

D Don't know

R Refused

D4B [IF OWN] Not including what you will owe for THIS MONTH's mortgage do you owe payments for any previous months at your current address?

1 Yes

2 No

D Don't know

R Refused

D5. Are you currently. . . ?

1 Married

2 Widowed

3 Divorced

4 Separated

5 Never married

R Refused

D6. During the last month, did you or anyone in your household receive paid employment?

1 Yes

2 No (Skip to D6C)

R Refuse (Skip to D7)

D6A. [if D6=1] How many adults worked last month?

\_\_\_\_\_ADULTS

[IF D6A>2, SHOW SCRIPT: THE NEXT TWO QUESTIONS ASK ABOUT HOURS WORKED DURING THE LAST MONTH. PLEASE REFER TO THE TWO ADULTS WHO WORKED THE MOST HOURS.]

D6B1. On average, how many hours per week did the FIRST adult work?

\_\_\_\_\_HOURS

D6B2. (Ask if D6A>1) On average, how many hours per week did the SECOND adult work?

\_\_\_\_\_HOURS

D7 During the past 12 months, did you [and your spouse if married] usually carry a balance on any of your credit cards from one month to the next or did you usually pay off the balance on all your credit cards at the end of the month? [INTERVIEWER NOTE: RECORD "CARRY BALANCE" IF THEY CARRIED ANY BALANCE ON ANY CREDIT CARDS]

- 1 Carry balance
- 2 Pay off at end of month
- D Don't know
- R Refused
- N No credit card

D7a [if D7=1] Not including what you owe for this month's credit card bills, do you currently owe more than \$500 for credit card bills from previous months?

- 1 Yes
- 2 No
- D Don't know
- R Refused

D8 Do you currently owe more than \$250 for medical bills, including doctor or dentist bills, prescription drug payments, or hospital fees?

- 1 Yes
- 2 No
- D Don't know
- R Refused

D9 Do you have a checking account, a savings account, or both?

- 1 Checking account
- 2 Savings account
- 3 Both
- 4 Neither
- D Don't know
- R Refused

D10a [if D10=1, 2 or 3] At the end of the month, do you USUALLY have less than \$100, between \$100 and \$250, between \$250 and \$500, between \$500 and \$1,000, or more than \$1,000 in (your checking account/your savings account/your checking and savings accounts combined)?

- 1 Less than \$100
- 2 Between \$100 and \$250
- 3 Between \$250 - \$500
- 4 Between \$500 and \$1,000
- 5 Greater than \$1,000
- D Don't know
- R Refused

S1 Do you pay directly for your electricity?

- 1 Yes
- 2 No

S2 Including yourself, how many people live in your household?

\_\_\_\_PEOPLE

S3 Including all money earned from wages, salaries, tips, commissions, workers' compensation, unemployment insurance, child support, or other sources, about how much was your total household income before taxes last month? Was it approximately equal to or less than . . . ? (PROBE: IF R DOESN'T KNOW 1 MONTH RANGE, PROMPT WITH ANNUAL RANGE)  
D=DON'T KNOW, R=REFUSED

HOUSEHOLD SIZE	MAXIMUM MONTHLY INCOME STANDARDS	MAXIMUM YEARLY INCOME STANDARDS
1	\$1,196.25	\$14,355
2	\$1,603.75	\$19,245
3	\$2,011.25	\$24,135
4	\$2,418.75	\$29,025
5	\$2,826.25	\$33,915
6	\$3,233.75	\$38,805
7	\$3,641.25	\$43,695

8	\$4,048.75	\$48,585
9	\$4,456.25	\$53,475
For each Additional Person, add	\$407.50	\$4,890

ANY\_COM Those are all the questions I have for you. Do you have any additional comments you would like me to note?

- 1 Yes [RECORD VERBATIM]
- 2 No

End. THOSE ARE ALL THE QUESTIONS I HAVE FOR YOU. THANK YOU FOR YOUR TIME.

*NOTE TO INTERVIEWERS: IF RESPONDENT WANTS MORE INFORMATION ABOUT THE ELECTRIC ASSISTANCE PROGRAM, THEY SHOULD CONTACT THE OFFICE OF HOME ENERGY PROGRAMS OR SOCIAL SERVICES IN THEIR COUNTY OF RESIDENCE.*

**APPENDIX E: SURVEY METHODOLOGY AND RESPONSE RATES**

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This appendix presents the methodology and response rates for the EUSP participant and nonparticipant surveys.

**E.1 METHODOLOGY FOR PARTICIPANT SURVEYS**

The participant surveys are an important component of the evaluation of the state of Maryland’s Electric Universal Service Program (EUSP). The intended long-term outcome of the program is that participants will make regular, prompt, and complete payment of their electric bills. The evaluation is analyzing the extent to which they do this and identifying program improvements.

Specifically, the participant survey comprised of topics including:

- (1) Program Participation:
  - How participants first heard of Electric Assistance
  - Main reason they decided to apply for Electric Assistance
  - Satisfaction level with the EA program
  - Participant’s views on the program’s budget billing component
- (2) Electric usage and household bill payments
- (3) Economic hardship levels
- (4) Demographics

(Appendix D contains the participant survey instrument.)

**E.2 SAMPLE DESIGN**

We used a stratified sample design, dividing participants into one of three quotas based on their utilities. The first quota included program participants from BG&E. Quota two included participants from PEPCo and DelMarva because these utilities would be switching to market-based rates during the evaluation period, and the third quota was comprised of participants from other utilities.

**Table E.1  
Participant Survey Sample**

Strata	Respondent Pool	Completes	Confidence Level
1	BG&E Participants	133	95%, +/-10%
2	PEPCo/Connectiv Participants	133	95%, +/-10%
3	All other Maryland Utility Participants	133	95%, +/-10%

PA received a file of program participants containing 2005 contact information. The file consisted of key variables, including: a unique identifier, contact name, contact address and phone number, program application date, agency name, and arrears data. Initially, 900 participants (300 per strata) were pulled as the starting sample. During the field period we judiciously added sample, with the goal of achieving the highest possible cooperation/response rate.

Recognizing that the participant population is typically more mobile than average, PA also attempted to update the provided sample with updated 2006 contact information. This effort included the collection of series of 2006 participant text file lists from agencies statewide. We found, however, that the match rate between our sample and the text file lists were very low (about 12%), suggesting that most past participants had yet to re-apply to the program. Given this low match rate, PA fielded the survey with the original sample, conscious that increased efforts and tracing would be necessary to obtain the highest possible cooperation/response rate.

The sample contact name represented our “target respondent,” as that was the person who completed the application. However, this may not always be the appropriate person for answering questions to address the survey’s objectives. We used the survey script to identify the best person to complete the survey.

### **E.3 CUSTOMER TELEPHONE SURVEY PROCEDURES**

PA mailed advanced postcards out to the participant list to improve cooperation with the survey. The postcard explained that PA interviewer staff would be calling them to conduct a survey and also explained the purpose of that survey. The postcard also contained a toll-free telephone number that participants could use to contact PA if they were interested in completing the survey, or if they had any questions.

PA held an interviewer training session in early February 2006. Full-scale survey calling started with pretest calls on February 7, 2006. Calling continued until March 7, 2006, when all survey completes for each sample strata were achieved. We finished with 387 completed surveys, 129 each across the three strata. On average, calls with participants lasted sixteen minutes.

Using the advance postcard contact, telephone lookups, toll-free line, tracing and follow-up phone procedures, PA Market Analytics staff achieved an overall cooperation rate of 39.4% for program participants. The table below shows both a cooperation, and response rate. The completion rate is defined as the number of completed surveys divided by starting sample, net ineligible cases and bad phone numbers (labeled “Adjusted Sample2”). By strata, this rate was 39.9% for Strata 1, 41.6% for Strata 2, and 37.1% for Strata 3. The more stringent response rate is defined as the number of completed surveys divided by the starting sample, net only the ineligible cases (labeled “Adjusted Sample1”). This rate was 21.6% across all program participants, 20.5% for Strata 1, 22.3% for Strata 2, and 22.1% for Strata 3.

**Table E.2**  
**Participant Cooperation / Response Rate**

	Total	Participant Strata 1	Participant Strata 2	Participant Strata 3
<b>Starting Sample</b>	<b>1850</b>	<b>650</b>	<b>600</b>	<b>600</b>
Ineligible - Applied but denied	42	18	14	10
Ineligible - Deceased	0	0	0	0
Ineligible - Other *	14	2	7	5
<b>Adjusted Sample1</b>	<b>1794</b>	<b>630</b>	<b>579</b>	<b>585</b>
No/bad phone number	717	257	247	213
Traced, no working number	96	50	22	24
<b>Adjusted Sample2</b>	<b>981</b>	<b>323</b>	<b>310</b>	<b>348</b>
Refused	124	38	39	47
Unavailable for duration	14	7	3	4
Incapable/language barrier	51	18	14	19
Still attempting contact	405	131	125	149
Not yet attempted	0	0	0	0
<b>Complete</b>	<b>387</b>	<b>129</b>	<b>129</b>	<b>129</b>
<b>Response Rate Including Bad Numbers **</b>	<b>21.6%</b>	<b>20.5%</b>	<b>22.3%</b>	<b>22.1%</b>
<b>Cooperation Rate Excluding Bad Numbers ***</b>	<b>39.4%</b>	<b>39.9%</b>	<b>41.6%</b>	<b>37.1%</b>

\* Other ineligible include households that were either not familiar with Electric Assistance, or said they did not

\*\* Response rate calculated as completes/adjusted sample1

\*\*\* Cooperation rate calculated as completes/adjusted sample2

PA began Internet tracing efforts for bad phone numbers about two-thirds through the field period. The tracing protocol included: (1) identification of the bad numbers by the lab shift supervisor, (2) creating a tracing form (showing sample information and a checklist of tracing steps) for that record, and (3) using several online White pages “people search” lookup functions to find alternate phone numbers. If at any time during this process a new phone number was located, the record was reopened and attempted. The record would go back and tracing would resume from where the search ended, if the new phone number was also bad.

#### E.4 WEIGHTING

The participant survey data was then weighted to represent the overall PY 2005 new participant population.

#### E.5 METHODOLOGY FOR NONPARTICIPANT SURVEYS

The nonparticipant surveys are an important component of the evaluation of the state of Maryland’s Electric Universal Service Program (EUSP). The intended long-term outcome of the program is that participants will make regular, prompt, and complete payment of their electric bills. This nonparticipant evaluation is used to compare the extent to which participants increase their abilities for continued payments against non-participants with similar socio-economic levels.

Specifically, the nonparticipant survey comprised of topics including:

- (2) Payment of their own electricity bill
- (3) Knowledge and understanding of EUSP

- Likelihood of future program participation
  - Attitudes towards Electric Assistance
- (2) Electric usage and household bill payments
  - (3) Economic hardship levels
  - (4) Demographics

(Appendix D contains the nonparticipant survey instrument.)

## **E.6 SAMPLE DESIGN**

PA drew the nonparticipant sample using a “nearest neighbor” approach. That is, we identified and sampled households nearest to the households of program participants. The sample included address and utility information. However, contact information (i.e., telephone numbers) was added through both a third-party data services company, and internal PA Internet White pages “people search” tracing. The combined efforts yielded a starting sample consisting of 979 potential respondents. The participant survey sample was a subset of the low income comparison group from the impact evaluation.

Unlike the participant sample, the nonparticipant sample did not provide interviewer staff with a contact name. With nonparticipant sample at a household level, we identified a target respondent by asking for the person most familiar with their household energy use and utility bills.

## **E.7 CUSTOMER TELEPHONE SURVEY PROCEDURES**

PA mailed advanced postcards out to the nonparticipant list to improve cooperation with the survey. The postcard explained that PA interviewer staff would be calling them to conduct a survey and also explained the purpose of that survey. The postcard also contained a toll-free telephone number that nonparticipants could use to contact PA if they were interested in completing the survey, or if they had any questions. Not included on the advanced postcard was mention of the survey incentive. As interviewers made initial contact with respondents, they offered a 5\$ incentive upon completion of the telephone survey.

PA held an interviewer training session in late January 2006. Full-scale survey calling started with pretest calls on January 25, 2006. Calling continued until March 7, 2006. We finished with 147 completed surveys. On average, calls with participants lasted twelve minutes.

Using the advance postcard contact, telephone sample lookups, 800 line and follow-up phone procedures, PA Market Analytics staff achieved an overall cooperation rate of 18.6% for non-participants. The table below shows both a cooperation, and response rate. The cooperation rate is defined as the number of completed surveys divided by starting sample, net ineligible cases and bad phone numbers (labeled “Adjusted Sample2”). The more stringent response rate is defined as the number of completed surveys divided by the starting sample, net only the ineligible cases (labeled “Adjusted Sample1”). This rate was 15.1% across all non-participants.

**Table E.3  
Non-Participant Cooperation / Response Rate**

	<b>Non Participant</b>
<b>Starting Sample</b>	<b>979</b>
Ineligible - R received services	4
Ineligible - Other	0
<b>Adjusted Sample1</b>	<b>975</b>
No/bad phone number	184
<b>Adjusted Sample2</b>	<b>791</b>
Refused	139
Unavailable for duration	4
Incapable/language barrier	18
Still attempting contact	483
Not yet attempted	0
<b>Complete</b>	<b>147</b>
<b>Response Rate Including Bad Numbers *</b>	<b>15.1%</b>
<b>Cooperation Rate Excluding Bad Numbers **</b>	<b>18.6%</b>

\* Response rate calculated as completes/adjusted sample1

\*\* Cooperation rate calculated as completes/adjusted sample2

***APPENDIX F: RESULTS OF THE CUSTOMER SURVEY***

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**F.1 PARTICIPANT SURVEYS**

The following pages contain the results of the participant customer survey

## Participant Tables

**P05a. How Respondents First Heard About Electric Assistance**

	Strata			Overall
	1 PEPCO & Delmarva	2 BGE	3 Any Others	
1.00 Utility company representative	11.0%	2.8%	2.3%	4.8%
2.00 Utility bill insert	5.1%	14.9%	8.3%	11.1%
3.00 Friend or neighbor	25.0%	34.0%	35.6%	32.1%
4.00 Relative	2.2%	2.1%	8.3%	3.4%
5.00 Landlord	2.2%	.0%	1.5%	.9%
6.00 Office of Peoples Council	.7%	.7%	.0%	.6%
7.00 Local fuel fund	.0%	.0%	2.3%	.5%
8.00 Community agency or social service office	22.8%	17.7%	15.9%	18.6%
9.00 Application Fair or Expo	1.5%	.0%	.0%	.4%
10.00 Radio advertisement	.7%	.0%	.0%	.2%
11.00 Television advertisement	2.2%	1.4%	.8%	1.5%
12.00 Newspaper advertisement	1.5%	3.5%	3.8%	3.1%
13.00 Flyers	.7%	2.1%	.8%	1.5%
14.00 On-site visit	.0%	.0%	.0%	.0%
15.00 Childrens school	.0%	.0%	.8%	.2%
16.00 Referral from other program	5.9%	2.8%	5.3%	4.1%
17.00 Other	8.1%	11.3%	11.4%	10.5%
18.00 Don't know	10.3%	6.4%	3.0%	6.7%
Count	97	202	82	381

**P05b. Why Respondents Decided to Apply for Electric Assistance**

	Strata			Overall
	1 PEPCO & Delmarva	2 BGE	3 Any Others	
1.00 Wanted help paying electric bill	42.0%	49.8%	41.4%	46.0%
2.00 Had utility debt	11.3%	7.6%	10.1%	9.1%
3.00 Didn't want to get disconnected	4.2%	3.3%	2.0%	3.3%
4.00 Applying for heating assistance and also received EA	2.8%	.9%	1.5%	1.6%
5.00 Wanted help so could meet other type of expense	2.4%	1.4%	2.0%	1.8%
6.00 Wanted to be able to adequately heat and light home	.5%	.5%	.5%	.5%
7.00 Have limited/low income	28.3%	28.4%	30.3%	28.8%
8.00 Formed a new household and needed assistance	.9%	.0%	.5%	.4%
9.00 Other	7.1%	8.1%	11.6%	8.5%
10.00 Don't know	.5%	.0%	.0%	.1%
Count	100	204	83	387

**P05c. Reason Why Respondents did not Participate in Electric Assistance Before**

	Strata			Overall
	1 PEPCO & Delmarva	2 BGE	3 Any Others	
1.00 Household received assistance from another source	.7%	1.4%	.0%	.9%
2.00 Felt that household was financially more capable	17.3%	17.1%	20.1%	17.8%
3.00 Employment situation changed in household	15.8%	8.6%	8.2%	10.4%
4.00 Didn't believe would qualify for EA	3.6%	5.0%	5.2%	4.7%
5.00 Household did apply, but didn't receive benefits before	3.6%	.0%	.0%	.9%
6.00 Was not aware of the program	30.9%	37.9%	26.1%	33.6%
7.00 Didn't want to do budget billing	2.9%	.0%	.7%	.9%
8.00 Didn't want to receive financial assistance	1.4%	2.1%	6.0%	2.8%
9.00 Didn't live in Maryland	2.9%	.7%	3.7%	1.9%
10.00 Was part of another household so didn't need assistance	6.5%	7.1%	9.0%	7.3%
11.00 Not eligible	5.0%	1.4%	6.0%	3.3%
12.00 Situation changed in general	2.9%	4.3%	6.7%	4.4%
13.00 Other	6.5%	14.3%	8.2%	11.0%
Count	96	197	82	375

**P05d. Method used to Submit Application for Electric Assistance**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
How submitted application	1 Through the mail	20.2%	17.1%	22.5%	19.0%
	2 In-person at local agency office	62.0%	65.1%	65.1%	64.3%
	3 At an Energy Expo or Application Fair	5.4%	.8%	.8%	2.0%
	4 At an outreach site	6.2%	8.5%	3.9%	6.9%
	5 Through a house visit/someone came to me	3.1%	3.1%	5.4%	3.6%
	6 Other [SPECIFY]	3.1%	5.4%	2.3%	4.2%
	Count	100	204	83	387

**P05e\_1. Satisfaction with Ease of Filling out Application**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Ease of filling out the application	1 Not at all satisfied	.8%	1.6%	.0%	1.1%
	2 2	.8%	.8%	.8%	.8%
	3 3	3.2%	.0%	5.8%	2.0%
	4 4	28.0%	17.5%	20.7%	20.9%
	5 Very satisfied	67.2%	80.2%	72.7%	75.3%
	Mean	4.60	4.74	4.65	4.68
	Count	97	199	78	374

**P05e\_2. Satisfaction with Helpfulness of Staff in Completing Application**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Helpfulness of staff in completing the application	1 Not at all satisfied	4.8%	1.6%	2.6%	2.7%
	2 2	.8%	2.5%	1.7%	1.9%
	3 3	6.5%	3.3%	3.4%	4.2%
	4 4	29.0%	9.8%	18.1%	16.6%
	5 Very satisfied	58.9%	82.8%	74.1%	74.7%
	Mean	4.36	4.70	4.59	4.59
	Count	96	193	75	364

**P05e\_3. Satisfaction with Information Received Explaining the Program**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Information received explaining the program	1 Not at all satisfied	2.5%	1.6%	3.3%	2.2%
	2 2	3.3%	3.9%	1.6%	3.3%
	3 3	5.8%	3.1%	4.1%	4.0%
	4 4	28.1%	22.8%	22.0%	24.0%
	5 Very satisfied	60.3%	68.5%	69.1%	66.6%
	Mean	4.40	4.53	4.52	4.50
	Count	94	201	80	374

**P05e\_4. Satisfaction with Amount of Electric Assistance Received**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
The amount of EA received	1 Not at all satisfied	3.1%	1.6%	1.6%	2.0%
	2 2	.8%	2.4%	1.6%	1.8%
	3 3	5.5%	3.9%	8.1%	5.2%
	4 4	20.3%	13.4%	22.8%	17.2%
	5 Very satisfied	70.3%	78.7%	65.9%	73.8%
	Mean	4.54	4.65	4.50	4.59
	Count	99	201	80	379

**P05e\_5. Satisfaction with Amount of Past Debt/Arrears Paid Off by Program**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
The amount of past energy debt arrears paid off by the program	1 Not at all satisfied	5.6%	.0%	.0%	2.5%
	3 3	5.6%	.0%	.0%	2.5%
	4 4	11.1%	.0%	18.2%	9.3%
	5 Very satisfied	77.8%	100.0%	81.8%	85.6%
	Mean	4.56	5.00	4.82	4.75
	Count	14	9	7	31

**P05e\_6. Satisfaction with Time it Took to Notify that you Received Assistance**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Time it took to be notified that you received assistance	1 Not at all satisfied	6.4%	2.4%	1.7%	3.3%
	2 2	2.4%	2.4%	6.7%	3.3%
	3 3	12.0%	6.3%	10.8%	8.7%
	4 4	27.2%	22.8%	25.0%	24.4%
	5 Very satisfied	52.0%	66.1%	55.8%	60.4%
	Mean	4.16	4.48	4.27	4.35
	Count	97	201	78	375

**P05e\_7. Satisfaction with Requirement to Participate in a Monthly Budget Billing Plan**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Requirement to participate in a monthly budget billing plan	1 Not at all satisfied	.0%	1.6%	2.6%	1.4%
	2 2	3.3%	1.6%	1.7%	2.1%
	3 3	3.3%	1.6%	4.3%	2.6%
	4 4	32.2%	18.7%	31.0%	24.7%
	5 Very satisfied	61.2%	76.4%	60.3%	69.2%
	Mean	4.51	4.67	4.45	4.58
	Count	94	194	75	363

**P05e\_8. Satisfaction with the Way Average Monthly Payment is Shown on Electric Bill**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Way your average monthly payment is shown on your electric bill	1 Not at all satisfied	2.3%	2.3%	4.2%	2.7%
	2 2	2.3%	2.3%	1.7%	2.2%
	3 3	3.9%	7.0%	7.6%	6.3%
	4 4	34.4%	21.9%	24.4%	25.7%
	5 Very satisfied	57.0%	66.4%	62.2%	63.1%
	Mean	4.41	4.48	4.39	4.44
	Count	99	202	77	378

**P05e\_9. Satisfaction with Electric Assistance Program Overall**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Program overall	1 Not at all satisfied	3.1%	2.3%	.8%	2.2%
	2 2	1.6%	.0%	.8%	.6%
	3 3	3.1%	3.9%	4.8%	3.9%
	4 4	14.7%	11.6%	22.2%	14.7%
	5 Very satisfied	77.5%	82.2%	71.4%	78.7%
	Mean	4.62	4.71	4.63	4.67
	Count	100	204	82	385

**P05f. Types of Program Changes that Would Have Increased Satisfaction**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
More helpful and accessible staff	-8 Don't know	2.0%	2.9%	9.5%	4.1%
	1 Increased satisfaction	56.0%	70.6%	50.0%	61.2%
	2 No change in satisfaction	42.0%	26.5%	40.5%	34.7%
	Count	39	54	27	120
A less difficult application process	-8 Don't know	6.0%	5.9%	11.9%	7.3%
	1 Increased satisfaction	38.0%	47.1%	38.1%	42.1%
	2 No change in satisfaction	56.0%	47.1%	50.0%	50.6%
	Count	39	54	27	120
More information about the program	-8 Don't know	2.0%	2.9%	4.8%	3.1%
	1 Increased satisfaction	68.0%	67.6%	45.2%	62.7%
	2 No change in satisfaction	30.0%	29.4%	50.0%	34.3%
	Count	39	54	27	120
More information about ways to reduce energy costs	-8 Don't know	8.0%	2.9%	4.8%	5.0%
	1 Increased satisfaction	64.0%	44.1%	52.4%	52.4%
	2 No change in satisfaction	28.0%	52.9%	42.9%	42.6%
	Count	39	54	27	120
More assistance in budgeting	-8 Don't know	2.0%	5.9%	4.8%	4.4%
	1 Increased satisfaction	64.0%	70.6%	64.3%	67.0%
	2 No change in satisfaction	34.0%	23.5%	31.0%	28.6%
	Count	39	54	27	120
More or better referrals to other assistance programs	-8 Don't know	6.0%	5.9%	9.5%	6.7%
	1 Increased satisfaction	70.0%	76.5%	59.5%	70.5%
	2 No change in satisfaction	24.0%	17.6%	31.0%	22.7%
	Count	39	54	27	120
More flexibility in paying your monthly bill amount	-8 Don't know	4.0%	8.8%	4.8%	6.3%
	1 Increased satisfaction	74.0%	58.8%	57.1%	63.4%
	2 No change in satisfaction	22.0%	32.4%	38.1%	30.3%
	Count	39	54	27	120
Easier to understand information on utility bill	-8 Don't know	2.0%	5.9%	7.1%	4.9%
		2.0%	5.9%	7.1%	4.9%
	1 Increased satisfaction	46.0%	55.9%	54.8%	52.4%
		46.0%	55.9%	54.8%	52.4%
	2 No change in satisfaction	52.0%	38.2%	38.1%	42.7%
		52.0%	38.2%	38.1%	42.7%
Count	39	54	27	120	

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Quicker credit toward your utility bill	-8 Don't know	1	2	1	4
	1 Increased satisfaction	27	43	21	90
	2 No change in satisfaction	11	9	5	25
	Count	39	54	27	120

**P06a. Household has Applied to Receive Electric Assistance this Program Year**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Applied for Program year 2006	-8 Don't know	3.9%	5.4%	3.1%	4.5%
	1 Yes	54.3%	55.0%	59.7%	55.8%
	2 No	41.9%	39.5%	37.2%	39.6%
	Count	100	204	83	387

**P06b. Method for Submitting Application to Receive Electric Assistance this Program Year**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
How submitted application	1 Through the mail	37.1%	54.9%	42.9%	47.7%
	2 In-person at local agency office	57.1%	33.8%	40.3%	41.1%
	3 At an Energy Expo or Application Fair	2.9%	.0%	1.3%	1.0%
	4 At an outreach site	2.9%	2.8%	9.1%	4.3%
	5 Through a house visit/someone came to me	.0%	2.8%	2.6%	2.1%
	6 Other [SPECIFY]	.0%	5.6%	3.9%	3.8%
Count		54	112	50	216

**P06c. Experience with Program this Year Compared to First Year**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Experience with the program this year versus last year	1 Much better	8.6%	15.5%	5.2%	11.4%
	2 Somewhat better	5.7%	19.7%	13.0%	14.7%
	3 About the same	68.6%	50.7%	71.4%	60.0%
	4 Somewhat worse	14.3%	9.9%	6.5%	10.2%
	5 Much worse	2.9%	4.2%	3.9%	3.8%
	Mean	2.97	2.68	2.91	2.80
	Count	54	112	50	216

**NP1. Plan to Apply for Electric Assistance Before June 30, 2006**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Plan on applying for EA before the program year ends	1 Yes	55.9%	77.6%	38.5%	64.1%
	2 No	27.1%	10.3%	40.4%	20.7%
	3 Maybe	16.9%	12.1%	21.2%	15.2%
	Count	46	92	34	171

**NP1a. Reasons Respondent Hasn't Applied for Electric Assistance Yet This Year'**

	Strata			Overall
	1 PEPCO & Delmarva	2 BGE	3 Any Others	
1.00 Haven't had time	11.4%	18.5%	24.2%	17.7%
2.00 Forgot to apply	6.8%	7.4%	6.1%	7.1%
3.00 Lost application	.0%	5.6%	3.0%	3.8%
4.00 Hard to get to agency to fill out application	4.5%	3.7%	3.0%	3.8%
5.00 I tried to apply but I could not get an appointment	.0%	.0%	9.1%	1.4%
6.00 I didn't receive an application in the mail	18.2%	16.7%	6.1%	15.4%
7.00 I don't know where to apply	2.3%	.0%	3.0%	1.0%
8.00 Income has been too high to-date/seasonal employment	2.3%	.0%	3.0%	1.0%
9.00 I'm still receiving benefits from last year	13.6%	11.1%	15.2%	12.3%
10.00 My old past due amount was paid off last year	.0%	.0%	.0%	.0%
11.00 I have a credit on my bill from participating last year	2.3%	3.7%	.0%	2.8%
12.00 Missed Application Fair or other outreach event	.0%	3.7%	.0%	2.2%
13.00 Don't have the necessary information	11.4%	7.4%	6.1%	8.2%
14.00 Other	27.3%	22.2%	21.2%	23.3%
Count	33	82	20	135

**NP2. Reasons Respondent Isn't Planning on Applying for Electric Assistance This Year**

	Strata			Overall
	1 PEPSCO & Delmarva	2 BGE	3 Any Others	
1.00 Household received assistance from another source	4.5%	.0%	.0%	1.5%
2.00 Felt that household was financially more capable this year	13.6%	40.0%	28.6%	27.1%
3.00 Bills are lower and I have been able to pay them	4.5%	.0%	7.1%	4.1%
4.00 The winter weather was mild, resulting in bills I could pay	.0%	.0%	.0%	.0%
5.00 Do not think I am eligible this year because my income is higher	9.1%	10.0%	17.9%	12.5%
6.00 My old past due bill was paid off last year so I no longer need help	.0%	.0%	3.6%	1.3%
7.00 The grants are lower this year so it is not worth the trouble to apply	.0%	.0%	3.6%	1.3%
8.00 Had to wait so long last yr to receive grant,not worth it to apply this yr	4.5%	.0%	.0%	1.5%
9.00 Have a credit on my bill so I do not need help this year	.0%	.0%	.0%	.0%
10.00 With payments on budget billing, able to pay or don't need help right now	.0%	.0%	.0%	.0%
11.00 Employment situation changed in household	18.2%	20.0%	3.6%	13.5%
12.00 Didn't believe would qualify for EA this year	4.5%	.0%	3.6%	2.8%
13.00 Don't want to do budget billing again	4.5%	.0%	.0%	1.5%
14.00 Planned to apply but I just don't have time	.0%	.0%	.0%	.0%
15.00 Didn't receive an application in the mail this year	4.5%	.0%	3.6%	2.8%
16.00 It is too much trouble to apply	4.5%	10.0%	7.1%	7.2%

	Strata			Overall
	1 PEPCO & Delmarva	2 BGE	3 Any Others	
17.00 The place to apply is too far away	.0%	.0%	.0%	.0%
18.00 Do not know where to apply	.0%	.0%	.0%	.0%
19.00 Didn't like participating in program last year	4.5%	.0%	3.6%	2.8%
20.00 Situation changed in general	.0%	.0%	3.6%	1.3%
21.00 Other	22.7%	20.0%	14.3%	18.9%
Count	12	9	14	35

**NP3. Would Apply for Electric Assistance Again**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Apply for EA benefits	1 Yes	87.5%	83.3%	90.5%	87.5%
again if the need arose	2 No	12.5%	16.7%	9.5%	12.5%
	Count	12	9	14	35

**OP2. When Participating in Electric Assistance, Received Information on How to Reduce Energy Use**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
When participating in EA, receive information on how to reduce energy use	-8 Don't know	7.0%	6.2%	5.4%	6.2%
	1 Yes	56.6%	70.5%	67.4%	66.3%
	2 No	36.4%	23.3%	27.1%	27.5%
	Count	100	204	83	387

**OP2. How Information on Electric Assistance was Presented to Respondents**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Representative give a brochure to read through	-8 Don't know	2.7%	4.4%	.0%	3.1%
	1 Yes	72.6%	79.1%	82.8%	78.5%
	2 No	24.7%	16.5%	17.2%	18.5%
	Count	57	144	56	256
Representative discuss ways to save energy in your home	-8 Don't know	4.1%	4.4%	5.7%	4.6%
	1 Yes	42.5%	49.5%	51.7%	48.4%
	2 No	53.4%	46.2%	42.5%	47.0%
	Count	57	144	56	256
Anything else	-8 Don't know	1.4%	1.1%	2.3%	1.4%
	1 Yes	17.8%	18.7%	20.7%	18.9%
	2 No	80.8%	80.2%	77.0%	79.6%
	Count	57	144	56	256

**Op2a. Usefulness of Information on Electric Assistance**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Usefulness of energy use information received as part of the program	1 Not at all useful	8.3%	3.4%	7.0%	5.3%
	2 2	4.2%	7.9%	2.3%	5.8%
	3 3	9.7%	7.9%	9.3%	8.6%
	4 4	20.8%	22.5%	27.9%	23.3%
	5 Very useful	56.9%	58.4%	53.5%	57.0%
	Mean	4.14	4.25	4.19	4.21
	Count	56	141	56	252

**OP2b. Has Made Changes in Energy Use Based on Information Received**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Made any changes in the way household uses energy as a result of this information	1 Yes	53.4%	63.7%	52.9%	59.1%
	2 No	46.6%	36.3%	47.1%	40.9%
	Count	57	144	56	256

**Op2c. Interest in Receiving Information on Ways to Reduce Household Energy Use as Part of Electric Assistance**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Interest in receiving information on ways to reduce energy use	1 Not at all interested	7.4%	5.6%	12.8%	7.7%
	2 2	.0%	2.8%	2.6%	1.8%
	3 3	7.4%	5.6%	7.7%	6.6%
	4 4	13.0%	8.3%	12.8%	10.8%
	5 Very interested	72.2%	77.8%	64.1%	73.1%
	Mean	4.43	4.50	4.13	4.40
	Count	42	57	25	124

**OP3. While Participating in Electric Assistance, Received Information on Budgeting/Managing Money to Make Utility Payment**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Receive information on ways to establish a budget/manage money to make utility payments	-8 Don't know	10.1%	7.0%	7.8%	7.9%
	1 Yes	17.1%	17.8%	27.1%	19.6%
	2 No	72.9%	75.2%	65.1%	72.4%
	Count	100	204	83	387

**OP3. How Information on Budgeting/Managing Money was Presented to Respondents**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Representative give a brochure or packet to read through	-8 Don't know	.0%	.0%	2.9%	.9%
	1 Yes	90.9%	82.6%	85.7%	85.4%
	2 No	9.1%	17.4%	11.4%	13.8%
	Count	17	36	23	76
Representative discuss with you ways manage or budget money	-8 Don't know	.0%	4.3%	2.9%	2.9%
	1 Yes	36.4%	60.9%	62.9%	56.0%
	2 No	63.6%	34.8%	34.3%	41.1%
	Count	17	36	23	76
Anything else	1 Yes	9.1%	13.0%	11.4%	11.7%
	2 No	90.9%	87.0%	88.6%	88.3%
	Count	17	36	23	76

**Op3a. Usefulness of Information on Budgeting/Managing Money**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Usefulness of the money management or budget information received	1 Not at all useful	4.8%	4.8%	8.6%	6.0%
	2 2	9.5%	4.8%	11.4%	7.9%
	3 3	4.8%	.0%	8.6%	3.8%
	4 4	19.0%	23.8%	20.0%	21.5%
	5 Very useful	61.9%	66.7%	51.4%	60.8%
	Mean	4.24	4.43	3.94	4.23
	Count	16	33	23	72

**OP3b. Has Made Changes in Managing Budget Based on Information Received**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Made changes in way budget is managed as a result of the information	1 Yes	36.4%	34.8%	42.9%	37.5%
	2 No	63.6%	65.2%	57.1%	62.5%
	Count	17	36	23	76

**Op3c. Interest in Receiving Information on Ways to Manage Household Budget as Part of Electric Assistance**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Interest in receiving information on ways to manage household budget	1 Not at all interested	22.5%	19.0%	34.9%	22.9%
	2 2	2.9%	3.8%	4.7%	3.7%
	3 3	4.9%	7.6%	11.6%	7.6%
	4 4	14.7%	14.3%	14.0%	14.3%
	5 Very interested	54.9%	55.2%	34.9%	51.4%
	Mean	3.76	3.83	3.09	3.68
	Count	79	166	56	300

**E1. Types of Actions Taken to Save Energy or Reduce Electric Bill**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Lowered heating system thermostat	-8 Don't know	.8%	.8%	.8%	.8%
	-7 NA	6.2%	3.9%	6.2%	5.0%
	1 Yes	81.4%	83.7%	79.8%	82.3%
	2 No	11.6%	11.6%	13.2%	12.0%
	Count	100	204	83	387
Lowered water heater thermostat	-8 Don't know	2.3%	2.3%	1.6%	2.2%
	-7 NA	20.2%	14.7%	15.5%	16.3%
	1 Yes	31.8%	41.1%	35.7%	37.5%
	2 No	45.7%	41.9%	47.3%	44.0%
	Count	100	204	83	387
Washed laundry in cold water	-8 Don't know	1.6%	.0%	2.3%	.9%
	-7 NA	17.8%	13.2%	4.7%	12.5%
	1 Yes	55.0%	51.2%	67.4%	55.7%
	2 No	25.6%	35.7%	25.6%	30.9%
	Count	100	204	83	387
Used drapes or window coverings	-8 Don't know	.8%	1.6%	.0%	1.0%
	-7 NA	.0%	.8%	.0%	.4%
	1 Yes	80.6%	77.5%	79.8%	78.8%
	2 No	18.6%	20.2%	20.2%	19.8%
	Count	100	204	83	387
Used air conditioning less or used fans more	-9 Refused	.8%	.0%	.0%	.2%
	-8 Don't know	2.3%	1.6%	1.6%	1.8%
	-7 NA	2.3%	1.6%	3.9%	2.3%
	1 Yes	66.7%	59.7%	65.9%	62.8%
	2 No	27.9%	37.2%	28.7%	33.0%
Count	100	204	83	387	
Turned off appliances when not in use	-8 Don't know	.0%	.0%	.8%	.2%
	1 Yes	93.0%	96.9%	96.1%	95.7%
	2 No	7.0%	3.1%	3.1%	4.1%
Count	100	204	83	387	
Turned off lights when not in use	1 Yes	98.4%	100.0%	97.7%	99.1%
	2 No	1.6%	.0%	2.3%	.9%
	Count	100	204	83	387
Anything else not mentioned	-8 Don't know	.8%	.0%	.8%	.4%
	-7 NA	.0%	.0%	.8%	.2%
	1 Yes	24.8%	24.0%	19.4%	23.2%
	2 No	74.4%	76.0%	79.1%	76.2%
	Count	100	204	83	387

**B1. Owe Money for Previous Month Electric Bills**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Owe money for previous months' electric bills	-8 Don't know	2.3%	1.6%	2.3%	1.9%
	1 Yes	27.9%	24.0%	14.7%	23.0%
	2 No	69.8%	74.4%	82.9%	75.1%
	Count	100	204	83	387

**B1a. Total Amount Owed for Previous Month Electric Bills**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Amount owed for previous months	22.00	.0%	3.2%	.0%	1.8%
	30.00	2.9%	.0%	.0%	.9%
	40.00	2.9%	.0%	.0%	.9%
	65.00	2.9%	.0%	.0%	.9%
	90.00	.0%	3.2%	.0%	1.8%
	93.00	.0%	.0%	5.6%	.7%
	100.00	2.9%	3.2%	5.6%	3.5%
	101.00	2.9%	.0%	.0%	.9%
	110.00	2.9%	3.2%	.0%	2.7%
	124.00	2.9%	.0%	.0%	.9%
	125.00	.0%	.0%	5.6%	.7%
	130.00	.0%	.0%	5.6%	.7%
	140.00	.0%	3.2%	5.6%	2.6%
	145.00	2.9%	.0%	.0%	.9%
	150.00	2.9%	6.5%	.0%	4.5%
	153.00	.0%	3.2%	.0%	1.8%
	160.00	.0%	3.2%	.0%	1.8%
	161.00	2.9%	.0%	.0%	.9%
	180.00	.0%	3.2%	.0%	1.8%
	200.00	.0%	9.7%	11.1%	6.9%
	234.00	.0%	.0%	5.6%	.7%
	250.00	8.8%	6.5%	.0%	6.3%
	275.00	.0%	3.2%	.0%	1.8%
	290.00	2.9%	.0%	.0%	.9%
	295.00	.0%	.0%	5.6%	.7%
	300.00	2.9%	9.7%	5.6%	7.1%
	325.00	.0%	3.2%	.0%	1.8%
	340.00	.0%	3.2%	.0%	1.8%
	350.00	.0%	.0%	5.6%	.7%
	354.00	.0%	3.2%	.0%	1.8%
	400.00	5.9%	.0%	11.1%	3.3%

	Strata			Overall
	1 PEPCO & Delmarva	2 BGE	3 Any Others	
450.00	2.9%	3.2%	.0%	2.7%
500.00	5.9%	9.7%	5.6%	8.0%
505.00	2.9%	.0%	.0%	.9%
517.00	2.9%	.0%	.0%	.9%
550.00	2.9%	.0%	.0%	.9%
600.00	2.9%	6.5%	5.6%	5.3%
700.00	2.9%	.0%	.0%	.9%
790.00	2.9%	.0%	.0%	.9%
800.00	2.9%	3.2%	.0%	2.7%
815.00	2.9%	.0%	.0%	.9%
900.00	5.9%	.0%	.0%	1.8%
1000.00	2.9%	3.2%	.0%	2.7%
1100.00	.0%	.0%	5.6%	.7%
1280.00	.0%	.0%	5.6%	.7%
1300.00	2.9%	.0%	.0%	.9%
1800.00	.0%	.0%	5.6%	.7%
2000.00	2.9%	3.2%	.0%	2.7%
9291.00	2.9%	.0%	.0%	.9%
Mean	743.65	370.94	458.17	495.48
Count	26	49	12	87

**B2. Before Electric Assistance, Owed Money for Previous Month Electric Bills**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Before EA, respondent owe money for back months' electric bills	-8 Don't know	5.4%	2.3%	3.9%	3.5%
	1 Yes	38.0%	38.8%	35.7%	37.9%
	2 No	56.6%	58.9%	60.5%	58.6%
	Count	100	204	83	387

**B2a. Past-due Amount Compared to Before Electric Assistance Participation**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Past due amount now versus amount past due before participation in EA	-8 Don't know	4.8%	5.0%	.0%	4.4%
	1 Less	23.8%	60.0%	66.7%	49.8%
	2 The same	28.6%	15.0%	11.1%	18.7%
	3 More	42.9%	20.0%	22.2%	27.2%
	Count	16	32	6	54

**B3. Ever Had Electricity Turned Off for Lack of/Late Payments**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
In last five years, electricity been turned off for lack of payment or late payments	-8 Don't know	1.6%	.0%	.8%	.6%
	1 Yes	12.4%	19.4%	16.3%	16.9%
	2 No	86.0%	80.6%	82.9%	82.5%
	Count	100	204	83	387

**B3. Number of Times Electricity Turned Off for Lack of/Late Payments**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Amount owed for previous months	22.00	.0%	3.2%	.0%	1.8%
	30.00	2.9%	.0%	.0%	.9%
	40.00	2.9%	.0%	.0%	.9%
	65.00	2.9%	.0%	.0%	.9%
	90.00	.0%	3.2%	.0%	1.8%
	93.00	.0%	.0%	5.6%	.7%
	100.00	2.9%	3.2%	5.6%	3.5%
	101.00	2.9%	.0%	.0%	.9%
	110.00	2.9%	3.2%	.0%	2.7%
	124.00	2.9%	.0%	.0%	.9%
	125.00	.0%	.0%	5.6%	.7%
	130.00	.0%	.0%	5.6%	.7%
	140.00	.0%	3.2%	5.6%	2.6%
	145.00	2.9%	.0%	.0%	.9%
	150.00	2.9%	6.5%	.0%	4.5%
	153.00	.0%	3.2%	.0%	1.8%
	160.00	.0%	3.2%	.0%	1.8%
	161.00	2.9%	.0%	.0%	.9%
	180.00	.0%	3.2%	.0%	1.8%
	200.00	.0%	9.7%	11.1%	6.9%
	234.00	.0%	.0%	5.6%	.7%
	250.00	8.8%	6.5%	.0%	6.3%
	275.00	.0%	3.2%	.0%	1.8%
	290.00	2.9%	.0%	.0%	.9%
	295.00	.0%	.0%	5.6%	.7%
	300.00	2.9%	9.7%	5.6%	7.1%
	325.00	.0%	3.2%	.0%	1.8%
	340.00	.0%	3.2%	.0%	1.8%
	350.00	.0%	.0%	5.6%	.7%
	354.00	.0%	3.2%	.0%	1.8%

	Strata			Overall
	1 PEPCO & Delmarva	2 BGE	3 Any Others	
400.00	5.9%	.0%	11.1%	3.3%
450.00	2.9%	3.2%	.0%	2.7%
500.00	5.9%	9.7%	5.6%	8.0%
505.00	2.9%	.0%	.0%	.9%
517.00	2.9%	.0%	.0%	.9%
550.00	2.9%	.0%	.0%	.9%
600.00	2.9%	6.5%	5.6%	5.3%
700.00	2.9%	.0%	.0%	.9%
790.00	2.9%	.0%	.0%	.9%
800.00	2.9%	3.2%	.0%	2.7%
815.00	2.9%	.0%	.0%	.9%
900.00	5.9%	.0%	.0%	1.8%
1000.00	2.9%	3.2%	.0%	2.7%
1100.00	.0%	.0%	5.6%	.7%
1280.00	.0%	.0%	5.6%	.7%
1300.00	2.9%	.0%	.0%	.9%
1800.00	.0%	.0%	5.6%	.7%
2000.00	2.9%	3.2%	.0%	2.7%
9291.00	2.9%	.0%	.0%	.9%
Mean	743.65	370.94	458.17	495.48
Count	26	49	12	87

**B3a1. Number of Disconnects of Electric Service Since Participating**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Change in number of times electric service has been disconnected	-8 Don't know	.0%	4.0%	.0%	2.4%
	1 Decreased	81.3%	84.0%	85.7%	83.8%
	2 Stayed the same	12.5%	8.0%	14.3%	10.2%
	3 Increased	6.3%	4.0%	.0%	3.6%
	Count	12	39	14	65

**B4. Best Description of Electric Bill Situation in Last Two Years**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Statement best describing household's electric bills in last two years	-8 Don't know	.8%	1.6%	.0%	1.0%
	1 Pay all electric bills on time	45.0%	48.8%	57.4%	49.7%
	2 Pay only some electric bills on time	46.5%	41.9%	39.5%	42.6%
	3 Pay no electric bills on time	5.4%	4.7%	3.1%	4.5%
	4 Other [SPECIFY]	2.3%	3.1%	.0%	2.2%
	Count	100	204	83	387

**B5. Situation if Household Had Not Participated in Electric Assistance**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
If had not participated in EA, amount household would be paying	-8 Don't know	7.8%	7.0%	9.3%	7.7%
	1 Pay fewer bills on time	54.3%	48.1%	38.0%	47.5%
	2 Pay the same amount of bills on time	30.2%	33.3%	44.2%	34.9%
	3 Pay more bills on time	6.2%	10.9%	7.8%	9.0%
	4 Other [SPECIFY]	1.6%	.8%	.8%	1.0%
	Count	100	204	83	387

### H1. Concern with Meeting Expenses

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Medical and Health expenses	1 Not at all concerned	11.1%	13.4%	14.3%	13.0%
	2 2	4.0%	1.6%	4.0%	2.7%
	3 3	3.2%	4.7%	7.9%	5.0%
	4 4	14.3%	7.9%	9.5%	9.9%
	5 Very concerned	67.5%	72.4%	64.3%	69.4%
	Mean	4.23	4.24	4.06	4.20
	Count	98	201	82	380
Winter heating costs	1 Not at all concerned	7.9%	8.6%	6.5%	8.0%
	2 2	4.7%	3.9%	4.0%	4.1%
	3 3	3.1%	7.0%	5.6%	5.7%
	4 4	13.4%	9.4%	11.3%	10.8%
	5 Very concerned	70.9%	71.1%	72.6%	71.3%
	Mean	4.35	4.30	4.40	4.33
	Count	98	202	80	381
Monthly electric costs	1 Not at all concerned	3.1%	6.3%	7.9%	5.8%
	2 2	6.3%	4.7%	4.7%	5.1%
	3 3	4.7%	6.3%	6.3%	5.9%
	4 4	11.8%	11.7%	15.7%	12.6%
	5 Very concerned	74.0%	71.1%	65.4%	70.6%
	Mean	4.47	4.37	4.26	4.37
	Count	98	202	82	383
Mortgage or rent	1 Not at all concerned	10.1%	14.9%	20.0%	14.6%
	2 2	4.2%	6.6%	6.7%	6.0%
	3 3	6.7%	1.7%	6.7%	4.0%
	4 4	5.9%	4.1%	7.6%	5.3%
	5 Very concerned	73.1%	72.7%	59.0%	70.2%
	Mean	4.28	4.13	3.79	4.10
	Count	92	191	68	351
Food expenses	1 Not at all concerned	14.7%	11.6%	14.3%	13.0%
	2 2	4.7%	8.5%	7.9%	7.4%
	3 3	10.9%	14.7%	11.9%	13.1%
	4 4	18.6%	10.9%	19.8%	14.8%
	5 Very concerned	51.2%	54.3%	46.0%	51.7%
	Mean	3.87	3.88	3.75	3.85
	Count	100	204	82	385

## H2. Concern with Meeting Expenses

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Before participating in EA, concern for meeting medical and health expenses	-9 Refused	.8%	.0%	.0%	.2%
	-8 Don't know	.8%	.0%	1.6%	.5%
	1 More concerned	26.2%	33.9%	29.4%	30.9%
	2 Same amount of concern	62.7%	59.8%	58.7%	60.3%
	3 Less concerned	9.5%	5.5%	9.5%	7.4%
	4 Not applicable	.0%	.8%	.8%	.6%
	Count	98	201	82	380
Before participating in EA, concern for meeting winter heating costs	-9 Refused	.8%	.0%	.0%	.2%
	-8 Don't know	1.6%	1.6%	1.6%	1.6%
	1 More concerned	33.9%	45.3%	39.5%	41.1%
	2 Same amount of concern	57.5%	48.4%	51.6%	51.4%
	3 Less concerned	6.3%	3.1%	6.5%	4.6%
	4 Not applicable	.0%	1.6%	.8%	1.0%
	Count	98	202	80	381
Before participating in EA, concern for meeting monthly electric costs	-9 Refused	.8%	.0%	.0%	.2%
	-8 Don't know	.8%	.8%	1.6%	1.0%
	1 More concerned	32.3%	43.8%	37.0%	39.4%
	2 Same amount of concern	62.2%	52.3%	55.9%	55.6%
	3 Less concerned	3.9%	3.1%	5.5%	3.8%
	Count	98	202	82	383
	Before participating in EA, concern for meeting mortgage or rent	-9 Refused	.8%	.0%	.0%
-8 Don't know		.8%	.8%	1.9%	1.0%
1 More concerned		29.4%	36.4%	27.6%	32.8%
2 Same amount of concern		62.2%	59.5%	62.9%	60.9%
3 Less concerned		6.7%	2.5%	6.7%	4.4%
4 Not applicable		.0%	.8%	1.0%	.6%
Count		92	191	68	351
Before participating in EA, concern for meeting food expenses	-9 Refused	.8%	.0%	.0%	.2%
	-8 Don't know	.8%	.8%	.8%	.8%
	1 More concerned	22.5%	37.2%	22.2%	30.2%
	2 Same amount of concern	65.1%	58.9%	69.8%	62.8%
	3 Less concerned	10.1%	3.1%	6.3%	5.6%
	4 Not applicable	.8%	.0%	.8%	.4%
	Count	100	204	82	385

**H3. Household Received Help from Programs in the Past Two Years**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Anyone in household received food stamps	1 Yes	54.3%	38.8%	53.5%	45.9%
	2 No	45.7%	61.2%	46.5%	54.1%
	Count	100	204	83	387
Anyone in household received cash payments from TANF	-8 Don't know	.0%	1.6%	.0%	.8%
	1 Yes	11.6%	10.1%	10.1%	10.5%
	2 No	88.4%	88.4%	89.9%	88.7%
	Count	100	204	83	387
Anyone in household participate in WIC	-8 Don't know	.8%	.0%	.0%	.2%
	1 Yes	19.4%	21.7%	18.6%	20.4%
	2 No	79.8%	78.3%	81.4%	79.4%
	Count	100	204	83	387
Anyone in household received Medical Assistance	-9 Refused	.0%	.0%	.8%	.2%
	-8 Don't know	.8%	.0%	.8%	.4%
	1 Yes	58.1%	61.2%	51.9%	58.4%
	2 No	41.1%	38.8%	46.5%	41.0%
	Count	100	204	83	387
Anyone in household received assistance from the government in paying for housing	-8 Don't know	.0%	.0%	.8%	.2%
	1 Yes	31.8%	17.8%	19.4%	21.8%
	2 No	68.2%	82.2%	79.8%	78.1%
	Count	100	204	83	387

**H4. Have Received Money/Help from Anyone Else to Help Pay Utility Bills**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Received money from other organization or individual to help pay utility bills over last 24 months	1 Yes	9.3%	10.1%	11.6%	10.2%
	2 No	90.7%	89.9%	88.4%	89.8%
	Count	100	204	83	387

**H5. Total Amount of Money Received from Other Sources in Last 24 Months**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Money received from all sources other than EA and MEAP in last 24 months for utility bills	-8 Don't know	.0%	7.7%	26.7%	10.5%
	1 Response in dollars	100.0%	92.3%	73.3%	89.5%
	Count	9	21	10	40

**H5a. Total Amount of Money Received from Other Sources in Last 24 Months**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Amount received	.00 None	8.3%	.0%	.0%	2.2%
	40.00	.0%	8.3%	.0%	4.5%
	50.00	8.3%	8.3%	.0%	6.7%
	70.00	.0%	.0%	9.1%	1.8%
	75.00	.0%	.0%	9.1%	1.8%
	82.00	.0%	.0%	9.1%	1.8%
	100.00	8.3%	16.7%	9.1%	13.0%
	140.00	8.3%	.0%	.0%	2.2%
	150.00	.0%	8.3%	.0%	4.5%
	200.00	8.3%	8.3%	18.2%	10.3%
	225.00	.0%	.0%	9.1%	1.8%
	250.00	.0%	.0%	9.1%	1.8%
	300.00	.0%	16.7%	.0%	8.9%
	325.00	8.3%	.0%	.0%	2.2%
	400.00	16.7%	8.3%	.0%	8.8%
	500.00	.0%	.0%	9.1%	1.8%
	700.00	.0%	8.3%	.0%	4.5%
	900.00	8.3%	.0%	.0%	2.2%
	1000.00	.0%	8.3%	18.2%	8.1%
	2000.00	.0%	8.3%	.0%	4.5%
	2250.00	8.3%	.0%	.0%	2.2%
	2500.00	8.3%	.0%	.0%	2.2%
	4312.00	8.3%	.0%	.0%	2.2%
	Count	9	19	7	35

### H6. From Where the Money was Received

	Strata		
	1 PEPCO & Delmarva	2 BGE	3 Any Others
1.00 A local non-profit type organization	15.4%	25.0%	33.3%
2.00 A governmental organization	23.1%	16.7%	16.7%
3.00 A friend, neighbor, or relative	38.5%	25.0%	41.7%
4.00 Your utility company	.0%	.0%	.0%
5.00 Other person or organization	23.1%	8.3%	8.3%
6.00 Fuel fund	.0%	16.7%	.0%
7.00 Prefer not to answer	.0%	8.3%	.0%
8.00 Don't know or not sure	.0%	.0%	.0%
Count	9	19	7

### H7. Changes Made in Spending/Lifestyle to Reduce Size of Household Bills in Last Two Years

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Changes made in spending or lifestyle over last 2 years to reduce household bills?	-8 Don't know	2.3%	.8%	.0%	1.0%
	1 Yes	57.4%	52.7%	65.1%	56.6%
	2 No	40.3%	46.5%	34.9%	42.4%
	Count	100	204	83	387

**H7a. Types of Changes Made in Spending/Lifestyle to Reduce Size of Household Bills in Last Two Years**

	Strata		
	1 PEPCO & Delmarva	2 BGE	3 Any Others
1.00 Cut back on food	17.6%	17.5%	16.3%
2.00 Cut back on clothing	13.1%	14.0%	15.4%
3.00 Cut back on medical care	5.0%	.6%	4.4%
4.00 Cut back on automobile use	6.0%	7.0%	7.5%
5.00 Cut back on recreation or vacations	11.1%	8.8%	5.7%
6.00 Cut back on energy consumption	20.1%	19.3%	22.0%
7.00 Cut back on entertainment	17.6%	20.5%	19.8%
8.00 Other	8.0%	12.3%	8.8%
9.00 Don't know	1.5%	.0%	.0%
Count	57	107	54

**H7b. Participation in Electric Assistance has Improved this Situation**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Participation in EA	-8 Don't know	1.4%	2.9%	3.6%	2.7%
has improved the situation	1 Yes	82.4%	75.0%	69.0%	75.5%
	2 No	16.2%	22.1%	27.4%	21.9%
	Count	57	107	54	219

### D1. Education

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Highest level of school or highest level of degree completed	-9 Refused	.8%	.8%	1.6%	.9%
	-8 Don't know	.0%	.8%	.8%	.6%
	1 1 To 11	20.2%	18.6%	24.8%	20.3%
	2 12th Grade No Diploma	9.3%	10.9%	10.1%	10.3%
	3 High School Graduate Or Equivalent	35.7%	31.8%	31.8%	32.8%
	4 Some College Or Technical School But No Degree	17.8%	16.3%	23.3%	18.2%
	5 Associate/2-Year Degree In College	9.3%	11.6%	4.7%	9.5%
	6 Bachelor's Degree	5.4%	7.0%	2.3%	5.6%
	7 Graduate Degree	1.6%	2.3%	.8%	1.8%
	Count	100	204	83	387

### D2. Rent or Own Home

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Rent or own home	1 Rent	70.5%	62.8%	57.4%	63.6%
	2 Own	29.5%	34.1%	35.7%	33.2%
	3 Other	.0%	3.1%	7.0%	3.1%
	Count	100	204	83	387

### D2a. Year Home was Built

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Year home was built	-8 Don't know	21.1%	20.5%	10.9%	18.4%
	1 1990 or later	10.5%	4.5%	13.0%	7.9%
	2 1985 to 1989	7.9%	2.3%	2.2%	3.5%
	3 1980 to 1984	2.6%	2.3%	6.5%	3.3%
	4 1970 to 1979	15.8%	6.8%	21.7%	12.3%
	5 1960 to 1969	7.9%	9.1%	8.7%	8.7%
	6 1950 to 1959	10.5%	27.3%	13.0%	20.2%
	7 1940 to 1949	10.5%	11.4%	13.0%	11.6%
	8 1939 or earlier	13.2%	15.9%	10.9%	14.1%
Count	29	69	30	129	

**D3. Number of People Living in Household for Past 12 Months**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Number of people living in house over last 12 months	1	27.9%	31.0%	34.1%	30.9%
	2	17.1%	26.4%	23.3%	23.3%
	3	18.6%	20.9%	17.1%	19.5%
	4	16.3%	12.4%	11.6%	13.2%
	5	10.9%	6.2%	7.0%	7.6%
	6	7.0%	.0%	6.2%	3.1%
	7	.8%	.8%	.0%	.6%
	8	.8%	.8%	.0%	.6%
	9	.8%	1.6%	.8%	1.2%
	Count	100	204	83	387

**D4. Amount Household Pays for Rent/Mortgage Each Month**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Monthly household rent or mortgage	-9 Refused	6.2%	7.8%	5.4%	6.9%
	-8 Don't know	3.9%	3.9%	4.7%	4.0%
	1 Enter rent/mortgage	89.9%	88.4%	89.9%	89.1%
	Count	100	204	83	387

**D4\_1. Amount Household Pays for Rent/Mortgage Each Month**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Amount pay for rent/mortgage	.00 None	6.9%	9.6%	21.6%	11.5%
	26.00	.0%	.9%	.0%	.5%
	36.00	.9%	.0%	.0%	.2%
	46.00	.9%	.0%	.0%	.2%
	47.00	.9%	.0%	.0%	.2%
	69.00	.0%	.9%	.0%	.5%
	70.00	.0%	.0%	.9%	.2%
	75.00	.0%	.9%	.0%	.5%
	89.00	.9%	.0%	.0%	.2%
	90.00	.0%	.9%	.9%	.6%
	100.00	1.7%	.9%	.0%	.9%
	103.00	.9%	.0%	.0%	.2%
	112.00	.9%	.0%	.0%	.2%

	Strata			Overall
	1 PEPCO & Delmarva	2 BGE	3 Any Others	
121.00	.0%	.9%	.0%	.5%
122.00	.9%	.0%	.9%	.4%
125.00	.9%	.9%	.0%	.7%
137.00	.0%	.9%	.0%	.5%
138.00	.0%	.9%	.0%	.5%
141.00	.0%	.0%	.9%	.2%
147.00	.0%	.0%	.9%	.2%
150.00	.0%	3.5%	1.7%	2.2%
153.00	.0%	.0%	.9%	.2%
166.00	.0%	.9%	.0%	.5%
170.00	.9%	.0%	.0%	.2%
172.00	.9%	.0%	.0%	.2%
176.00	.0%	.9%	.0%	.5%
179.00	.9%	.0%	.0%	.2%
187.00	.0%	.9%	.0%	.5%
199.00	.0%	.0%	.9%	.2%
200.00	5.2%	.0%	3.4%	2.1%
217.00	.9%	.0%	.0%	.2%
224.00	.0%	.0%	.9%	.2%
235.00	.0%	.0%	.9%	.2%
236.00	.9%	.0%	.0%	.2%
250.00	.0%	.9%	.9%	.6%
255.00	.0%	.9%	.0%	.5%
280.00	.9%	.0%	.0%	.2%
288.00	.0%	.0%	.9%	.2%
290.00	.0%	.9%	.9%	.6%
297.00	.9%	.0%	.0%	.2%
300.00	2.6%	1.8%	6.9%	3.1%
308.00	.0%	.0%	.9%	.2%
310.00	.9%	.0%	.0%	.2%
314.00	.0%	.0%	.9%	.2%
322.00	.0%	.9%	.0%	.5%
323.00	.0%	.9%	.0%	.5%
325.00	1.7%	.0%	.9%	.6%
330.00	.0%	.0%	.9%	.2%
337.00	.0%	.9%	.0%	.5%
343.00	.9%	.0%	.0%	.2%
345.00	.0%	.0%	.9%	.2%
350.00	.9%	.9%	.9%	.9%
356.00	.9%	.0%	.0%	.2%
360.00	.0%	.9%	.0%	.5%
362.00	.9%	.0%	.0%	.2%
365.00	.0%	.0%	.9%	.2%
375.00	.0%	.0%	.9%	.2%

	Strata			Overall
	1 PEPCO & Delmarva	2 BGE	3 Any Others	
382.00	.0%	.9%	.0%	.5%
385.00	.9%	.0%	.0%	.2%
387.00	.9%	.0%	.0%	.2%
389.00	.0%	.9%	.0%	.5%
400.00	.9%	4.4%	.9%	2.7%
410.00	.0%	.9%	.0%	.5%
412.00	.0%	.0%	.9%	.2%
415.00	.0%	.0%	.9%	.2%
417.00	.0%	.0%	.9%	.2%
425.00	.0%	.9%	.0%	.5%
435.00	.9%	.0%	.0%	.2%
444.00	.9%	.0%	.0%	.2%
450.00	1.7%	.0%	3.4%	1.2%
461.00	.0%	.0%	.9%	.2%
467.00	.0%	.0%	.9%	.2%
470.00	.0%	.9%	.0%	.5%
475.00	.0%	1.8%	.9%	1.1%
477.00	.0%	.0%	.9%	.2%
482.00	.0%	.9%	.0%	.5%
495.00	.9%	.0%	.0%	.2%
500.00	2.6%	5.3%	5.2%	4.5%
511.00	.0%	.9%	.0%	.5%
515.00	1.7%	.0%	.0%	.4%
516.00	.0%	.9%	.0%	.5%
518.00	.0%	.9%	.0%	.5%
521.00	.0%	.9%	.0%	.5%
525.00	.0%	.0%	.9%	.2%
530.00	.0%	.9%	.0%	.5%
535.00	.0%	.9%	.0%	.5%
542.00	.9%	.0%	.0%	.2%
544.00	.0%	.9%	.0%	.5%
550.00	2.6%	1.8%	.9%	1.8%
558.00	.0%	.9%	.0%	.5%
560.00	.9%	.0%	.0%	.2%
570.00	.0%	.9%	.0%	.5%
575.00	1.7%	.9%	.9%	1.1%
577.00	.0%	.0%	.9%	.2%
578.00	.0%	.9%	.0%	.5%
599.00	.9%	.0%	.0%	.2%
600.00	1.7%	3.5%	3.4%	3.0%
602.00	.0%	.0%	.9%	.2%
608.00	.0%	.0%	.9%	.2%
612.00	.9%	.0%	.0%	.2%
625.00	.0%	2.6%	.0%	1.4%

	Strata			Overall
	1 PEPCO & Delmarva	2 BGE	3 Any Others	
630.00	.9%	.0%	.0%	.2%
640.00	.9%	.0%	.0%	.2%
641.00	.0%	.9%	.0%	.5%
644.00	.0%	.0%	.9%	.2%
650.00	4.3%	2.6%	1.7%	2.9%
662.00	.0%	.9%	.0%	.5%
671.00	.0%	.9%	.0%	.5%
675.00	.9%	.0%	.0%	.2%
680.00	.9%	1.8%	.0%	1.1%
687.00	.9%	.0%	.0%	.2%
688.00	.9%	.0%	.0%	.2%
690.00	.0%	.0%	.9%	.2%
695.00	.9%	.0%	.0%	.2%
700.00	2.6%	.9%	.0%	1.1%
715.00	.0%	.0%	.9%	.2%
720.00	.9%	.0%	.0%	.2%
725.00	.9%	.0%	.0%	.2%
735.00	.9%	.0%	.0%	.2%
736.00	.9%	.0%	.0%	.2%
750.00	.9%	.0%	2.6%	.8%
756.00	.0%	.9%	.0%	.5%
760.00	.0%	.9%	.0%	.5%
761.00	.0%	.0%	.9%	.2%
765.00	.9%	.0%	.0%	.2%
767.00	.9%	.0%	.0%	.2%
780.00	.0%	.9%	.0%	.5%
785.00	.9%	.0%	.0%	.2%
790.00	.0%	.9%	.0%	.5%
797.00	.9%	.0%	.0%	.2%
800.00	.9%	3.5%	.0%	2.1%
801.00	.9%	.0%	.0%	.2%
812.00	.9%	.0%	.0%	.2%
835.00	.0%	.0%	.9%	.2%
838.00	.0%	.0%	.9%	.2%
840.00	.0%	.0%	.9%	.2%
850.00	.0%	1.8%	.9%	1.1%
860.00	.9%	.0%	.0%	.2%
875.00	.9%	.9%	.0%	.7%
900.00	.0%	.9%	1.7%	.8%
911.00	.9%	.0%	.0%	.2%
915.00	.9%	.0%	.0%	.2%
919.00	.0%	.9%	.0%	.5%
921.00	.9%	.0%	.0%	.2%
934.00	.9%	.0%	.0%	.2%

	Strata			Overall
	1 PEPCO & Delmarva	2 BGE	3 Any Others	
950.00	.0%	2.6%	.9%	1.6%
954.00	.9%	.0%	.0%	.2%
955.00	.9%	.0%	.0%	.2%
980.00	.0%	.9%	.0%	.5%
998.00	.0%	.9%	.0%	.5%
1000.00	.0%	1.8%	2.6%	1.5%
1029.00	.9%	.0%	.0%	.2%
1040.00	.0%	.9%	.0%	.5%
1079.00	.9%	.0%	.0%	.2%
1100.00	.9%	1.8%	1.7%	1.5%
1170.00	.9%	.0%	.0%	.2%
1185.00	.9%	.0%	.0%	.2%
1200.00	3.4%	.9%	.9%	1.5%
1300.00	.0%	.9%	.0%	.5%
1350.00	.0%	.0%	1.7%	.4%
1375.00	.9%	.0%	.0%	.2%
1380.00	.9%	.0%	.0%	.2%
1400.00	.9%	.0%	2.6%	.8%
1483.00	.0%	.0%	.9%	.2%
1500.00	.9%	.0%	.0%	.2%
1515.00	.9%	.0%	.0%	.2%
1700.00	.0%	1.8%	.0%	.9%
1800.00	.9%	.9%	.0%	.7%
2000.00	.0%	.0%	.9%	.2%
2250.00	.9%	.0%	.0%	.2%
2400.00	.0%	.9%	.0%	.5%
Count	90	180	75	345

**D4a. Owe Rent Payments for Previous Months at Current Address**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Owes rent for previous months at current address	-9 Refused	1.1%	2.5%	4.1%	2.4%
	1 Yes	6.6%	11.1%	9.5%	9.5%
	2 No	92.3%	86.4%	86.5%	88.1%
	Count	70	128	48	246

**D4b. Owe Mortgage Payments for Previous Months at Current Address**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Owes mortgage payments for previous months at current address	-9 Refused	.0%	.0%	2.2%	.5%
	-8 Don't know	.0%	2.3%	2.2%	1.7%
	1 Yes	10.5%	13.6%	15.2%	13.3%
	2 No	89.5%	84.1%	80.4%	84.5%
	Count	29	69	30	129

**D5. Current Marital Status**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Current marital status	-9 Refused	4.7%	.8%	2.3%	2.1%
	1 Married	27.1%	18.6%	31.8%	23.6%
	2 Widowed	17.8%	17.8%	24.8%	19.3%
	3 Divorced	17.1%	20.9%	15.5%	18.8%
	4 Separated	6.2%	9.3%	6.2%	7.8%
	5 Never married	27.1%	32.6%	19.4%	28.3%
Count	100	204	83	387	

**D6. Someone in Household Received Paid Employment Last Month**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Anyone in household receive paid employment over the last month	-9 Refused	2.3%	.8%	3.1%	1.7%
	1 Yes	39.8%	34.1%	41.9%	37.3%
	2 No	57.8%	65.1%	55.0%	61.1%
	Count	99	204	83	386

**D6a. Number of Adults Working Last Month**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Number of adults receiving paid employment over the last month	1	88.2%	88.6%	77.8%	85.9%
	2	9.8%	9.1%	20.4%	12.0%
	3	2.0%	2.3%	1.9%	2.1%
	Count	39	69	35	144

**D6b1. Number of Hours First Adult Worked Per Week Last Month**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Number of hours worked per week by the first adult	.00	2.0%	.0%	.0%	.5%
	3.00	2.0%	.0%	.0%	.5%
	5.00	2.0%	.0%	.0%	.5%
	6.00	2.0%	.0%	.0%	.5%
	12.00	.0%	2.3%	.0%	1.1%
	15.00	.0%	.0%	5.6%	1.3%
	16.00	2.0%	2.3%	.0%	1.6%
	18.00	.0%	.0%	3.7%	.9%
	20.00	9.8%	9.1%	7.4%	8.9%
	21.00	2.0%	.0%	.0%	.5%
	24.00	.0%	2.3%	.0%	1.1%
	25.00	2.0%	4.5%	5.6%	4.1%
	30.00	2.0%	9.1%	14.8%	8.5%
	32.00	.0%	.0%	5.6%	1.3%
	33.00	.0%	.0%	1.9%	.4%
	35.00	7.8%	6.8%	3.7%	6.3%
	36.00	2.0%	.0%	1.9%	1.0%
	38.00	.0%	2.3%	.0%	1.1%
	39.00	.0%	.0%	1.9%	.4%
	40.00	54.9%	54.5%	35.2%	49.9%
	48.00	.0%	2.3%	.0%	1.1%
	50.00	2.0%	.0%	1.9%	1.0%
	54.00	.0%	.0%	1.9%	.4%
	55.00	.0%	2.3%	3.7%	2.0%
	56.00	.0%	.0%	1.9%	.4%
	60.00	3.9%	2.3%	3.7%	3.1%
	70.00	2.0%	.0%	.0%	.5%
	85.00	2.0%	.0%	.0%	.5%
Count		39	69	35	144

**D6b2. Number of Hours Second Adult Worked Per Week Last Month**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Number of hours worked per week by the second adult	.00	.0%	.0%	8.3%	3.2%
	12.00	.0%	20.0%	.0%	7.8%
	20.00	.0%	20.0%	16.7%	14.2%
	22.00	16.7%	.0%	.0%	3.8%
	25.00	.0%	20.0%	.0%	7.8%
	30.00	16.7%	.0%	.0%	3.8%
	32.00	.0%	.0%	8.3%	3.2%
	38.00	.0%	.0%	8.3%	3.2%
	40.00	50.0%	20.0%	33.3%	32.0%
	50.00	16.7%	20.0%	8.3%	14.8%
	60.00	.0%	.0%	8.3%	3.2%
	70.00	.0%	.0%	8.3%	3.2%
Count		5	8	8	20

**D7. Credit Card Balance Status**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
During the last 12 months, carried a balance on credit cards or paid off every month	-9 Refused	3.9%	.8%	3.9%	2.2%
	-8 Don't know	.8%	1.6%	.0%	1.0%
	-7 No credit card	59.7%	68.2%	61.2%	64.5%
	1 Carry balance	24.8%	21.7%	25.6%	23.3%
	2 Pay off at end of month	10.9%	7.8%	9.3%	8.9%
	Count		100	204	83

**D7a. Currently Owe More than \$500 on Previous Months Credit Card Balance**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Currently owe more than \$500 for credit card bills from previous months	-8 Don't know	6.3%	.0%	3.0%	2.4%
	1 Yes	68.8%	50.0%	54.5%	56.2%
	2 No	25.0%	50.0%	42.4%	41.4%
	Count	25	44	21	90

**D8. Currently Owe More than \$250 for Medical Bills**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Owe more than \$250 for medical bills	-9 Refused	3.1%	.8%	4.7%	2.2%
	-8 Don't know	3.1%	1.6%	2.3%	2.1%
	1 Yes	28.7%	37.2%	42.6%	36.2%
	2 No	65.1%	60.5%	50.4%	59.5%
	Count	100	204	83	387

**D9. Has Checking or Savings Account**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Checking account, a savings account, or both	-9 Refused	8.5%	3.9%	3.9%	5.1%
	1 Checking account	31.0%	39.5%	41.9%	37.8%
	2 Savings account	8.5%	4.7%	5.4%	5.8%
	3 Both	30.2%	23.3%	24.0%	25.2%
	4 Neither	21.7%	28.7%	24.8%	26.0%
Count	100	204	83	387	

**D10a. Typical Monthly Balance Amount**

		Strata			Overall
		1 PEPCO & Delmarva	2 BGE	3 Any Others	
Amount in checking, savings, or both accounts combined	-9 Refused	1.1%	1.1%	4.3%	1.9%
	-8 Don't know	3.3%	3.4%	4.3%	3.6%
	1 Less than \$100	62.2%	59.8%	63.0%	61.1%
	2 Between \$100 and \$250	21.1%	20.7%	19.6%	20.5%
	3 Between \$250 - \$500	10.0%	4.6%	4.3%	6.0%
	4 Between \$500 and \$1,000	1.1%	5.7%	3.3%	4.0%
	5 Greater than \$1,000	1.1%	4.6%	1.1%	2.9%
Count	70	137	60	267	

## **F.2 NONPARTICIPANT SURVEYS**

The following pages contain the results of the nonparticipant customer survey

## NONPARTICIPANT DATA TABLES

### P1. Aware of Electric Assistance Program

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONNECTIV	POTOMAC	SO MD EL		
Aware of EA before contacted for this study	-8 Don't know	2.8%	.0%	.0%	.0%	3.3%	.0%	1.3%	2.4%
	1 Yes	38.9%	13.1%	33.3%	18.2%	16.7%	42.9%	22.5%	22.9%
	2 No	58.3%	86.9%	66.7%	81.8%	80.0%	57.1%	76.2%	74.7%
	Count	36	61	6	11	30	7	151	83

### P2 (P05a). How Respondents First Heard About Electric Assistance

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONNECTIV	POTOMAC	SO MD EL		
1.00	Utility company representative	.0%	.0%	.0%	33.3%	.0%	.0%	2.2%	.0%
2.00	Utility bill insert	44.4%	50.0%	25.0%	.0%	50.0%	.0%	37.8%	48.1%
3.00	Friend or neighbor	11.1%	.0%	25.0%	.0%	16.7%	50.0%	13.3%	7.4%
4.00	Relative	5.6%	20.0%	.0%	33.3%	.0%	25.0%	11.1%	7.4%
5.00	Landlord	5.6%	.0%	.0%	.0%	.0%	.0%	2.2%	.0%
6.00	Office of Peoples Council	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%
7.00	Local fuel fund	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%
8.00	Community agency or social service office	5.6%	.0%	.0%	.0%	.0%	.0%	2.2%	3.7%
9.00	Application Fair or Expo	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%
10.00	Radio advertisement	5.6%	.0%	.0%	.0%	.0%	.0%	2.2%	3.7%
11.00	Television advertisement	.0%	10.0%	.0%	.0%	.0%	.0%	2.2%	.0%
12.00	Newspaper advertisement	11.1%	10.0%	25.0%	.0%	16.7%	.0%	11.1%	18.5%
13.00	Flyers	5.6%	.0%	25.0%	.0%	.0%	.0%	4.4%	7.4%
14.00	On-site visit	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%
15.00	Childrens school	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%
16.00	Referral from other program	.0%	.0%	.0%	.0%	.0%	25.0%	2.2%	.0%
17.00	Other	5.6%	10.0%	.0%	33.3%	.0%	.0%	6.7%	3.7%
18.00	Don't know	.0%	.0%	.0%	.0%	16.7%	.0%	2.2%	.0%
	Count	14	8	2	2	5	3	34	19

**P3 (P05c). Main Reason Respondents Did Not Participate in Electric Assistance**

	Supplier						Overall	Income Eligible
	ALLEGHEN	BGE	CHOPTANK	CONNECTIV	POTOMAC	SO MD EL		
1.00 Household received assistance from another source	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%
2.00 Felt that household was financially more capable	56.3%	50.0%	50.0%	50.0%	80.0%	25.0%	54.1%	57.9%
3.00 Employment situation changed in household	6.3%	.0%	.0%	.0%	.0%	.0%	2.7%	5.3%
4.00 Didn't believe would qualify for Energy Assistance	18.8%	12.5%	50.0%	.0%	20.0%	.0%	16.2%	10.5%
5.00 Household did apply, but didn't receive benefits before	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%
6.00 Was not aware of the program	12.5%	.0%	.0%	.0%	.0%	25.0%	8.1%	10.5%
7.00 Didn't want to do budget billing	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%
8.00 Didn't want to receive financial assistance	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%
9.00 Didn't live in Maryland	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%
10.00 Was part of another household so didn't need assistance	.0%	12.5%	.0%	50.0%	.0%	25.0%	8.1%	10.5%
11.00 Situation changed in general	.0%	.0%	.0%	.0%	.0%	.0%	.0%	.0%
12.00 Other	6.3%	25.0%	.0%	.0%	.0%	25.0%	10.8%	5.3%
Count	14	8	2	2	5	3	34	19

**P4. Likelihood of Participating in Electric Assistance in the Next 12 Months**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONECTIV	POTOMAC	SO MD EL		
Likelihood of participating in EA in the next 12 months	1 Not at all likely	80.0%	61.0%	100.0%	63.6%	63.3%	42.9%	66.7%	80.0%
	2 2	5.7%	6.8%	.0%	9.1%	.0%	14.3%	5.4%	6.3%
	3 3	2.9%	3.4%	.0%	9.1%	6.7%	14.3%	4.8%	5.0%
	4 4	.0%	1.7%	.0%	9.1%	.0%	14.3%	2.0%	1.3%
	5 Very likely	11.4%	27.1%	.0%	9.1%	30.0%	14.3%	21.1%	7.5%
	Mean	1.57	2.27	1.00	1.91	2.33	2.43	2.05	1.50
	Count	35	59	5	11	30	7	147	80

**P5. Main Reason Respondents ARE Likely to Participate in Electric Assistance in Next 12 Months**

	Supplier					Overall	Income Eligible
	ALLEGHEN	BGE	CONECTIV	POTOMAC	SO MD EL		
1.00 Cost of electricity and gas is increasing and I may need help	.0%	33.3%	.0%	33.3%	20.0%	27.1%	18.2%
2.00 I know someone who is participating in the program	.0%	3.3%	.0%	.0%	20.0%	3.4%	9.1%
3.00 Want help paying electric bill	33.3%	16.7%	33.3%	26.7%	.0%	20.3%	18.2%
4.00 Want to pay off utility debt	.0%	3.3%	.0%	.0%	.0%	1.7%	.0%
5.00 Want to reduce utility bill	.0%	6.7%	.0%	.0%	.0%	3.4%	.0%
6.00 Don't want to get disconnected	.0%	3.3%	.0%	.0%	.0%	1.7%	9.1%
7.00 Want to learn how to save electric	.0%	.0%	.0%	.0%	.0%	.0%	.0%
8.00 Want help to meet other expense/money for other necessities	.0%	3.3%	.0%	6.7%	.0%	3.4%	.0%
9.00 Have limited/low income	33.3%	20.0%	33.3%	13.3%	20.0%	20.3%	27.3%
10.00 Other	33.3%	10.0%	33.3%	20.0%	40.0%	18.6%	18.2%
11.00 Don't know	.0%	.0%	.0%	.0%	.0%	.0%	.0%
Count	4	17	2	9	2	34	7

**P5. Main Reason Respondents Are NOT Likely to Participate in Electric Assistance in Next 12 Months**

	Supplier					Overall	Income Eligible
	ALLEGHEN	BGE	CONNECTIV	POTOMAC	SO MD EL		
1.00 Cost of electricity and gas is increasing and I may need help	.0%	33.3%	.0%	33.3%	20.0%	27.1%	18.2%
2.00 I know someone who is participating in the program	.0%	3.3%	.0%	.0%	20.0%	3.4%	9.1%
3.00 Want help paying electric bill	33.3%	16.7%	33.3%	26.7%	.0%	20.3%	18.2%
4.00 Want to pay off utility debt	.0%	3.3%	.0%	.0%	.0%	1.7%	.0%
5.00 Want to reduce utility bill	.0%	6.7%	.0%	.0%	.0%	3.4%	.0%
6.00 Don't want to get disconnected	.0%	3.3%	.0%	.0%	.0%	1.7%	9.1%
7.00 Want to learn how to save electric	.0%	.0%	.0%	.0%	.0%	.0%	.0%
8.00 Want help to meet other expense/money for other necessities	.0%	3.3%	.0%	6.7%	.0%	3.4%	.0%
9.00 Have limited/low income	33.3%	20.0%	33.3%	13.3%	20.0%	20.3%	27.3%
10.00 Other	33.3%	10.0%	33.3%	20.0%	40.0%	18.6%	18.2%
11.00 Don't know	.0%	.0%	.0%	.0%	.0%	.0%	.0%
Count	4	17	2	9	2	34	7

**A1. Feelings About Programs Like Electric Assistance**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONECTIV	POTOMAC	SO MD EL		
Would rather ask friends/relatives for help than apply for gov programs like EA	1 Definitely agree	8.3%	18.3%	20.0%	40.0%	.0%	16.7%	13.9%	13.6%
	2 Probably agree	27.8%	28.3%	.0%	10.0%	37.0%	16.7%	27.1%	24.7%
	3 Probably disagree	27.8%	18.3%	40.0%	30.0%	18.5%	33.3%	22.9%	29.6%
	4 Definitely disagree	36.1%	35.0%	40.0%	20.0%	44.4%	33.3%	36.1%	32.1%
	Mean	2.92	2.70	3.00	2.30	3.07	2.83	2.81	2.80
	Count	36	60	5	10	27	6	144	81
Electricity bills are high enough that I would take any help that I could get	1 Definitely agree	16.7%	40.7%	33.3%	9.1%	39.3%	40.0%	31.7%	27.5%
	2 Probably agree	30.6%	20.3%	16.7%	27.3%	28.6%	20.0%	24.8%	21.3%
	3 Probably disagree	27.8%	20.3%	33.3%	36.4%	25.0%	20.0%	24.8%	32.5%
	4 Definitely disagree	25.0%	18.6%	16.7%	27.3%	7.1%	20.0%	18.6%	18.8%
	Mean	2.61	2.17	2.33	2.82	2.00	2.20	2.30	2.43
	Count	36	59	6	11	28	5	145	80
Should be more programs like this to help people pay other bills	1 Definitely agree	42.4%	61.0%	33.3%	54.5%	62.1%	50.0%	54.9%	46.8%
	2 Probably agree	30.3%	22.0%	33.3%	36.4%	24.1%	16.7%	25.7%	34.2%
	3 Probably disagree	15.2%	6.8%	.0%	9.1%	6.9%	16.7%	9.0%	10.1%
	4 Definitely disagree	12.1%	10.2%	33.3%	.0%	6.9%	16.7%	10.4%	8.9%
	Mean	1.97	1.66	2.33	1.55	1.59	2.00	1.75	1.81
	Count	33	59	6	11	29	6	144	79
If people could do without a few things, they should be able to pay electric bill without getting help	1 Definitely agree	20.6%	19.6%	20.0%	20.0%	26.9%	.0%	20.6%	17.3%
	2 Probably agree	32.4%	26.8%	60.0%	40.0%	15.4%	20.0%	27.9%	30.7%
	3 Probably disagree	20.6%	28.6%	20.0%	10.0%	19.2%	20.0%	22.8%	22.7%
	4 Definitely disagree	26.5%	25.0%	.0%	30.0%	38.5%	60.0%	28.7%	29.3%
	Mean	2.53	2.59	2.00	2.50	2.69	3.40	2.60	2.64
	Count	34	56	5	10	26	5	136	75
With programs like these are around, people are going to apply for it, so I might as well apply for it	1 Definitely agree	8.3%	16.1%	16.7%	27.3%	14.8%	16.7%	14.8%	13.6%
	2 Probably agree	8.3%	28.6%	50.0%	9.1%	22.2%	16.7%	21.1%	17.3%
	3 Probably disagree	16.7%	16.1%	16.7%	18.2%	25.9%	.0%	17.6%	16.0%
	4 Definitely disagree	66.7%	39.3%	16.7%	45.5%	37.0%	66.7%	46.5%	53.1%
	Mean	3.42	2.79	2.33	2.82	2.85	3.17	2.96	3.09
	Count	36	56	6	11	27	6	142	81
Would rather go without other things or keep electricity use to a minimum rather than apply	1 Definitely agree	42.9%	23.2%	20.0%	45.5%	33.3%	50.0%	32.9%	40.2%
	2 Probably agree	40.0%	37.5%	40.0%	45.5%	44.4%	16.7%	39.3%	36.6%
	3 Probably disagree	11.4%	17.9%	40.0%	.0%	11.1%	16.7%	14.3%	17.1%
	4 Definitely disagree	5.7%	21.4%	.0%	9.1%	11.1%	16.7%	13.6%	6.1%
	Mean	1.80	2.38	2.20	1.73	2.00	2.00	2.09	1.89
	Count	35	56	5	11	27	6	140	82

**E1. Types of Actions Taken to Save Energy or Reduce Electric Bill**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONECTIV	POTOMAC	SO MD EL		
Lowered heating system thermostat	1 Yes	77.1%	84.5%	50.0%	100.0%	85.2%	83.3%	82.5%	77.5%
	2 No	22.9%	15.5%	50.0%	.0%	14.8%	16.7%	17.5%	22.5%
	Count	35	58	6	11	27	6	143	80
Lowered water heater thermostat	-8 Don't know	.0%	.0%	.0%	.0%	4.2%	.0%	.7%	1.3%
	1 Yes	52.8%	57.1%	66.7%	72.7%	25.0%	50.0%	51.8%	48.1%
	2 No	47.2%	42.9%	33.3%	27.3%	70.8%	50.0%	47.5%	50.6%
	Count	36	56	6	11	24	6	139	79
Washed laundry in cold water	-8 Don't know	.0%	.0%	.0%	9.1%	.0%	.0%	.7%	1.2%
	1 Yes	63.9%	68.4%	66.7%	63.6%	63.0%	83.3%	66.4%	61.4%
	2 No	36.1%	31.6%	33.3%	27.3%	37.0%	16.7%	32.9%	37.3%
	Count	36	57	6	11	27	6	143	83
Used drapes or window coverings	1 Yes	77.8%	83.3%	60.0%	81.8%	70.4%	83.3%	78.6%	75.9%
	2 No	22.2%	16.7%	40.0%	18.2%	29.6%	16.7%	21.4%	24.1%
	Count	36	60	5	11	27	6	145	83
Used air conditioning less or used fans more	1 Yes	65.7%	71.2%	66.7%	63.6%	57.1%	50.0%	65.5%	63.4%
	2 No	34.3%	28.8%	33.3%	36.4%	42.9%	50.0%	34.5%	36.6%
	Count	35	59	6	11	28	6	145	82
Turned off appliances when not in use	1 Yes	94.4%	95.0%	100.0%	90.9%	89.3%	100.0%	93.9%	96.4%
	2 No	5.6%	5.0%	.0%	9.1%	10.7%	.0%	6.1%	3.6%
	Count	36	60	6	11	28	6	147	83
Turned off lights when not in use	1 Yes	100.0%	95.0%	100.0%	90.9%	96.4%	100.0%	96.6%	97.6%
	2 No	.0%	5.0%	.0%	9.1%	3.6%	.0%	3.4%	2.4%
	Count	36	60	6	11	28	6	147	83
Anything else not mentioned	-8 Don't know	2.8%	.0%	.0%	.0%	.0%	.0%	.7%	1.2%
	1 Yes	50.0%	25.0%	50.0%	36.4%	33.3%	50.0%	35.6%	39.8%
	2 No	47.2%	75.0%	50.0%	63.6%	66.7%	50.0%	63.7%	59.0%
	Count	36	60	6	11	27	6	146	83

**B1. Owe Money for Previous Month Electric Bills**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONECTIV	POTOMAC	SO MD EL		
Owe money for previous months' electric bills	-8 Don't know	5.6%	1.7%	.0%	.0%	3.6%	.0%	2.7%	3.6%
	1 Yes	2.8%	23.3%	16.7%	9.1%	21.4%	16.7%	16.3%	8.4%
	2 No	91.7%	75.0%	83.3%	90.9%	75.0%	83.3%	81.0%	88.0%
	Count	36	60	6	11	28	6	147	83

**B1a. Total Amount Owed for Previous Month Electric Bills**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONECTIV	POTOMAC	SO MD EL		
Amount owed for previous months	80.00	.0%	7.1%	.0%	.0%	.0%	.0%	4.3%	.0%
	100.00	.0%	.0%	.0%	.0%	20.0%	.0%	4.3%	.0%
	120.00	.0%	7.1%	.0%	.0%	.0%	.0%	4.3%	.0%
	190.00	.0%	7.1%	.0%	.0%	.0%	.0%	4.3%	.0%
	200.00	100.0%	7.1%	100.0%	.0%	80.0%	.0%	30.4%	57.1%
	217.00	.0%	7.1%	.0%	.0%	.0%	.0%	4.3%	.0%
	250.00	.0%	7.1%	.0%	.0%	.0%	.0%	4.3%	14.3%
	300.00	.0%	28.6%	.0%	.0%	.0%	100.0%	21.7%	14.3%
	302.00	.0%	7.1%	.0%	.0%	.0%	.0%	4.3%	14.3%
	345.00	.0%	7.1%	.0%	.0%	.0%	.0%	4.3%	.0%
	362.00	.0%	.0%	.0%	100.0%	.0%	.0%	4.3%	.0%
	400.00	.0%	7.1%	.0%	.0%	.0%	.0%	4.3%	.0%
	1100.00	.0%	7.1%	.0%	.0%	.0%	.0%	4.3%	.0%
	Mean	200.00		314.57	200.00	362.00	180.00	300.00	276.78
Count		1	14	1	1	5	1	23	7

**B2. Before Electric Assistance, Owed Money for Previous Month Electric Bills**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONECTIV	POTOMAC	SO MD EL		
Before EA, respondent owe money for back months' electric bills	-8 Don't know	.0%	.0%	.0%	.0%	16.7%	.0%	4.2%	.0%
	1 Yes	100.0%	50.0%	100.0%	.0%	16.7%	.0%	41.7%	42.9%
	2 No	.0%	50.0%	.0%	100.0%	66.7%	100.0%	54.2%	57.1%
	Count		1	14	1	1	6	1	24

**B2a. Past-due Amount Compared to Before Electric Assistance Participation**

		Supplier				Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	POTOMAC		
Past due amount now versus amount now	2 The same	100.0%	57.1%	100.0%	100.0%	70.0%	66.7%
	3 More	.0%	42.9%	.0%	.0%	30.0%	33.3%
	Count	1	7	1	1	10	3

**B3. Ever Had Electricity Turned Off for Lack of/Late Payments**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONECTIV	POTOMAC	SO MD EL		
In last five years, electricity been turned off for lack of payment or late payments	-8 Don't know	.0%	.0%	.0%	.0%	.0%	16.7%	.7%	1.2%
	1 Yes	2.8%	11.7%	16.7%	.0%	7.1%	.0%	7.5%	3.6%
	2 No	97.2%	88.3%	83.3%	100.0%	92.9%	83.3%	91.8%	95.2%
	Count	36	60	6	11	28	6	147	83

**B3. Number of Times Electricity Turned Off for Lack of/Late Payments**

		Supplier				Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	POTOMAC		
Number of times electric service has been disconnected	1	100.0%	42.9%	.0%	50.0%	45.5%	33.3%
	2	.0%	42.9%	.0%	50.0%	36.4%	33.3%
	3	.0%	.0%	100.0%	.0%	9.1%	33.3%
	10	.0%	14.3%	.0%	.0%	9.1%	.0%
	Mean	1.00	2.71	3.00	1.50	2.36	2.00
	Count	1	7	1	2	11	3

**B4. Best Description of Electric Bill Situation in Last Two Years**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONECTIV	POTOMAC	SO MD EL		
Statement best describeing household's electric bills in last two years	1 Pay all electric bills on time	88.9%	60.0%	83.3%	81.8%	64.3%	50.0%	70.1%	77.1%
	2 Pay only some electric bills on time	11.1%	28.3%	16.7%	9.1%	32.1%	50.0%	23.8%	21.7%
	3 Pay no electric bills on time	.0%	10.0%	.0%	.0%	3.6%	.0%	4.8%	1.2%
	4 Other [SPECIFY]	.0%	1.7%	.0%	9.1%	.0%	.0%	1.4%	.0%
	Count	36	60	6	11	28	6	147	83

H1. Concern with Meeting Expenses

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONECTIV	POTOMAC	SO MD EL		
Medical and Health expenses	1 Not at all concerned	27.8%	20.0%	16.7%	9.1%	32.1%	.0%	22.4%	22.9%
	2 2	2.8%	5.0%	16.7%	.0%	7.1%	.0%	4.8%	7.2%
	3 3	5.6%	11.7%	.0%	9.1%	17.9%	33.3%	11.6%	15.7%
	4 4	5.6%	8.3%	.0%	18.2%	7.1%	16.7%	8.2%	7.2%
	5 Very concerned	58.3%	55.0%	66.7%	63.6%	35.7%	50.0%	53.1%	47.0%
	Mean	3.64	3.73	3.83	4.27	3.07	4.17	3.65	3.48
	Count	36	60	6	11	28	6	147	83
Winter heating costs	1 Not at all concerned	17.1%	13.3%	33.3%	27.3%	17.9%	50.0%	18.5%	24.4%
	2 2	17.1%	6.7%	.0%	.0%	14.3%	.0%	9.6%	12.2%
	3 3	5.7%	11.7%	.0%	.0%	14.3%	16.7%	9.6%	9.8%
	4 4	8.6%	8.3%	33.3%	9.1%	14.3%	.0%	10.3%	12.2%
	5 Very concerned	51.4%	60.0%	33.3%	63.6%	39.3%	33.3%	52.1%	41.5%
	Mean	3.60	3.95	3.33	3.82	3.43	2.67	3.68	3.34
	Count	35	60	6	11	28	6	146	82
Monthly electric costs	1 Not at all concerned	27.8%	18.6%	33.3%	27.3%	14.8%	33.3%	22.1%	30.5%
	2 2	13.9%	5.1%	33.3%	9.1%	25.9%	.0%	12.4%	14.6%
	3 3	5.6%	13.6%	16.7%	.0%	3.7%	16.7%	9.0%	8.5%
	4 4	2.8%	10.2%	.0%	27.3%	18.5%	16.7%	11.0%	12.2%
	5 Very concerned	50.0%	52.5%	16.7%	36.4%	37.0%	33.3%	45.5%	34.1%
	Mean	3.33	3.73	2.33	3.36	3.37	3.17	3.46	3.05
	Count	36	59	6	11	27	6	145	82
Mortgage or rent	1 Not at all concerned	40.7%	27.3%	50.0%	36.4%	20.8%	50.0%	31.8%	40.6%
	2 2	7.4%	7.3%	16.7%	.0%	25.0%	.0%	10.1%	11.6%
	3 3	11.1%	3.6%	.0%	.0%	.0%	16.7%	4.7%	2.9%
	4 4	3.7%	3.6%	.0%	.0%	8.3%	.0%	3.9%	4.3%
	5 Very concerned	37.0%	58.2%	33.3%	63.6%	45.8%	33.3%	49.6%	40.6%
	Mean	2.89	3.58	2.50	3.55	3.33	2.67	3.29	2.93
	Count	27	55	6	11	24	6	129	69
Food expenses	1 Not at all concerned	47.2%	25.4%	33.3%	36.4%	32.1%	16.7%	32.9%	39.8%
	2 2	5.6%	11.9%	.0%	.0%	17.9%	16.7%	10.3%	14.5%
	3 3	11.1%	11.9%	.0%	.0%	14.3%	16.7%	11.0%	9.6%
	4 4	11.1%	13.6%	16.7%	.0%	7.1%	50.0%	12.3%	10.8%
	5 Very concerned	25.0%	37.3%	50.0%	63.6%	28.6%	.0%	33.6%	25.3%
	Mean	2.61	3.25	3.50	3.55	2.82	3.00	3.03	2.67
	Count	36	59	6	11	28	6	146	83

## H2. Concern with Meeting Expenses

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONNECTIV	POTOMAC	SO MD EL		
24 montsh ago, concern for meeting medical and health expenses	-9 Refused	.0%	.0%	.0%	.0%	.0%	16.7%	.7%	1.2%
	1 More concerned	22.2%	8.3%	16.7%	9.1%	7.1%	.0%	11.6%	13.3%
	2 Same amount of concern	69.4%	63.3%	50.0%	63.6%	64.3%	50.0%	63.9%	65.1%
	3 Less concerned	8.3%	28.3%	33.3%	27.3%	28.6%	33.3%	23.8%	20.5%
	Count	36	60	6	11	28	6	147	83
24 montsh ago, concern for meeting winter heating costs	1 More concerned	17.1%	11.7%	16.7%	.0%	14.3%	33.3%	13.7%	17.1%
	2 Same amount of concern	57.1%	65.0%	66.7%	90.9%	53.6%	50.0%	62.3%	62.2%
	3 Less concerned	25.7%	23.3%	16.7%	9.1%	32.1%	16.7%	24.0%	20.7%
	Count	35	60	6	11	28	6	146	82
24 montsh ago, concern for meeting monthly electric costs	-9 Refused	.0%	.0%	.0%	.0%	.0%	16.7%	.7%	1.2%
	1 More concerned	11.1%	10.2%	16.7%	9.1%	3.7%	16.7%	9.7%	13.4%
	2 Same amount of concern	63.9%	72.9%	66.7%	72.7%	66.7%	50.0%	68.3%	65.9%
	3 Less concerned	25.0%	16.9%	16.7%	18.2%	29.6%	16.7%	21.4%	19.5%
	Count	36	59	6	11	27	6	145	82
24 montsh ago, concern for meeting mortgage or rent	-8 Don't know	.0%	.0%	.0%	.0%	4.2%	.0%	.8%	.0%
	1 More concerned	18.5%	9.1%	.0%	9.1%	4.2%	16.7%	10.1%	13.0%
	2 Same amount of concern	66.7%	67.3%	66.7%	63.6%	75.0%	66.7%	68.2%	71.0%
	3 Less concerned	14.8%	23.6%	33.3%	27.3%	16.7%	16.7%	20.9%	15.9%
	Count	27	55	6	11	24	6	129	69
24 montsh ago, concern for meeting food expenses	-8 Don't know	2.8%	.0%	.0%	.0%	.0%	.0%	.7%	1.2%
	1 More concerned	8.3%	6.8%	.0%	9.1%	.0%	16.7%	6.2%	6.0%
	2 Same amount of concern	69.4%	71.2%	83.3%	63.6%	85.7%	66.7%	73.3%	80.7%
	3 Less concerned	19.4%	22.0%	16.7%	27.3%	14.3%	16.7%	19.9%	12.0%
	Count	36	59	6	11	28	6	146	83

**H3. Household Received Help from Programs in the Past Two Years**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONECTIV	POTOMAC	SO MD EL		
Anyone in household receive food stamps	1 Yes	5.6%	15.0%	.0%	.0%	3.6%	.0%	8.2%	3.6%
	2 No	94.4%	85.0%	100.0%	100.0%	96.4%	100.0%	91.8%	96.4%
	Count	36	60	6	11	28	6	147	83
Anyone in household receive cash payments from TANF	1 Yes	.0%	5.0%	.0%	.0%	.0%	.0%	2.0%	1.2%
	2 No	100.0%	95.0%	100.0%	100.0%	100.0%	100.0%	98.0%	98.8%
	Count	36	60	6	11	28	6	147	83
Anyone in household participate in WIC	1 Yes	.0%	5.0%	.0%	.0%	7.1%	.0%	3.4%	2.4%
	2 No	100.0%	95.0%	100.0%	100.0%	92.9%	100.0%	96.6%	97.6%
	Count	36	60	6	11	28	6	147	83
Anyone in household receive Medical Assistance	1 Yes	8.3%	25.0%	.0%	.0%	10.7%	50.0%	16.3%	14.5%
	2 No	91.7%	75.0%	100.0%	100.0%	89.3%	50.0%	83.7%	85.5%
	Count	36	60	6	11	28	6	147	83
Anyone in household receive assistance from the government in paying for housing	1 Yes	.0%	8.3%	.0%	.0%	7.1%	.0%	4.8%	1.2%
	2 No	100.0%	91.7%	100.0%	100.0%	92.9%	100.0%	95.2%	98.8%
	Count	36	60	6	11	28	6	147	83

**H4. Have Received Money/Help from Anyone Else to Help Pay Utility Bills**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONECTIV	POTOMAC	SO MD EL		
Received money from other organization or individual to help pay utility bills over last 24 months	-8 Don't know	.0%	1.7%	.0%	.0%	.0%	.0%	.7%	.0%
	1 Yes	.0%	11.7%	16.7%	.0%	.0%	.0%	5.4%	1.2%
	2 No	100.0%	86.7%	83.3%	100.0%	100.0%	100.0%	93.9%	98.8%
	Count	36	60	6	11	28	6	147	83

**H5. Total Amount of Money Received from Other Sources in Last 24 Months**

		Supplier		Overall	Income Eligible
		BGE	CHOPTANK		
H5. Money received from all sources in last 24 months for utility bills	-8 Don't know	28.6%	.0%	25.0%	.0%
	1 Response in dollars	71.4%	100.0%	75.0%	100.0%
	Count	7	1	8	1

**H5a. Total Amount of Money Received from Other Sources in Last 24 Months**

		Supplier		Overall	Income Eligible
		BGE	CHOPTANK		
H5.	150.00	20.0%	.0%	16.7%	.0%
Amount received	200.00	20.0%	.0%	16.7%	.0%
	300.00	.0%	100.0%	16.7%	100.0%
	400.00	20.0%	.0%	16.7%	.0%
	638.00	20.0%	.0%	16.7%	.0%
	1000.00	20.0%	.0%	16.7%	.0%
Count		5	1	6	1

**H6. From Where the Money was Received**

	Supplier		Overall	Income Eligible
	BGE	CHOPTANK		
1.00 A local non-profit type organization	33.3%	.0%	28.6%	.0%
2.00 A governmental organization	50.0%	.0%	42.9%	.0%
3.00 A friend, neighbour, or relative	16.7%	.0%	14.3%	.0%
4.00 Your utility company	.0%	.0%	.0%	.0%
5.00 Other person or organization	.0%	.0%	.0%	.0%
6.00 Fuel fund	.0%	.0%	.0%	.0%
7.00 Prefer not to answer	.0%	.0%	.0%	.0%
8.00 Don't know or not sure	.0%	100.0%	14.3%	100.0%
Count	5	1	6	1

**H7. Changes Made in Spending/Lifestyle to Reduce Size of Household Bills in Last Two Years**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONECTIV	POTOMAC	SO MD EL		
Changes made in spending or lifestyle over last 2 years to reduce household bills?	-8 Don't know	.0%	.0%	.0%	.0%	3.6%	.0%	.7%	1.2%
	1 Yes	38.9%	43.3%	16.7%	36.4%	39.3%	66.7%	40.8%	39.8%
	2 No	61.1%	56.7%	83.3%	63.6%	57.1%	33.3%	58.5%	59.0%
	Count	36	60	6	11	28	6	147	83

**H7a. Types of Changes Made in Spending/Lifestyle to Reduce Size of Household Bills in Last Two Years**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONECTIV	POTOMAC	SO MD EL		
1.00	Cut back on food	14.3%	15.0%	.0%	25.0%	7.4%	25.0%	14.4%	12.9%
2.00	Cut back on clothing	7.1%	8.3%	.0%	.0%	14.8%	12.5%	9.1%	9.7%
3.00	Cut back on medical care	.0%	1.7%	.0%	.0%	.0%	.0%	.8%	.0%
4.00	Cut back on automobile use	7.1%	10.0%	.0%	12.5%	3.7%	12.5%	8.3%	9.7%
5.00	Cut back on recreation or vacations	7.1%	8.3%	.0%	.0%	14.8%	.0%	8.3%	4.8%
6.00	Cut back on energy consumption	21.4%	16.7%	100.0%	12.5%	25.9%	.0%	18.9%	12.9%
7.00	Cut back on entertainment	25.0%	21.7%	.0%	25.0%	25.9%	25.0%	23.5%	29.0%
8.00	Other	14.3%	18.3%	.0%	25.0%	7.4%	25.0%	15.9%	19.4%
9.00	Don't know	3.6%	.0%	.0%	.0%	.0%	.0%	.8%	1.6%
	Count	14	26	1	4	11	4	60	33

**D1. Education**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONECTIV	POTOMAC	SO MD EL		
Highest level of school or highest level of degree completed	-9 Refused	2.8%	.0%	.0%	.0%	.0%	.0%	.7%	1.2%
	1 1 To 11	13.9%	16.7%	33.3%	.0%	14.3%	16.7%	15.0%	13.3%
	2 12th Grade No Diploma	2.8%	5.0%	.0%	9.1%	10.7%	16.7%	6.1%	6.0%
	3 High School Graduate Or Equivalent	19.4%	16.7%	.0%	54.5%	14.3%	16.7%	19.0%	20.5%
	4 Some College Or Technical School But No Degree	22.2%	28.3%	.0%	.0%	17.9%	16.7%	21.1%	19.3%
	5 Associate/2-Year Degree In College	19.4%	21.7%	33.3%	9.1%	21.4%	16.7%	20.4%	18.1%
	6 Bachelor's Degree	13.9%	6.7%	16.7%	27.3%	10.7%	.0%	10.9%	12.0%
	7 Graduate Degree	5.6%	5.0%	16.7%	.0%	10.7%	16.7%	6.8%	9.6%
	Count	36	60	6	11	28	6	147	83

**D2. Rent or Own Home**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONECTIV	POTOMAC	SO MD EL		
Rent or own home	1 Rent	13.9%	38.3%	.0%	9.1%	42.9%	.0%	27.9%	16.9%
	2 Own	86.1%	58.3%	100.0%	90.9%	57.1%	100.0%	70.7%	83.1%
	3 Other	.0%	3.3%	.0%	.0%	.0%	.0%	1.4%	.0%
	Count	36	60	6	11	28	6	147	83

**D2a. Year Home was Built**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONECTIV	POTOMAC	SO MD EL		
Year home was built	-8 Don't know	6.5%	11.4%	16.7%	.0%	12.5%	.0%	8.7%	8.7%
	1 1990 or later	9.7%	8.6%	16.7%	40.0%	6.3%	33.3%	13.5%	14.5%
	2 1985 to 1989	9.7%	.0%	33.3%	.0%	18.8%	16.7%	8.7%	11.6%
	3 1980 to 1984	.0%	2.9%	.0%	10.0%	12.5%	.0%	3.8%	5.8%
	4 1970 to 1979	6.5%	14.3%	16.7%	.0%	12.5%	.0%	9.6%	8.7%
	5 1960 to 1969	16.1%	11.4%	.0%	.0%	18.8%	16.7%	12.5%	11.6%
	6 1950 to 1959	9.7%	22.9%	.0%	10.0%	6.3%	.0%	12.5%	11.6%
	7 1940 to 1949	6.5%	2.9%	.0%	30.0%	6.3%	33.3%	8.7%	7.2%
	8 1939 or earlier	35.5%	25.7%	16.7%	10.0%	6.3%	.0%	22.1%	20.3%
Count	31	35	6	10	16	6	104	69	

**D3. Number of People Living in Household for Past 12 Months**

		Supplier					Overall	Income Eligible	
		ALLEGHEN	BGE	CHOPTANK	CONNECTIV	POTOMAC			SO MD EL
Number of people living in house over last 12 months	1	11.1%	25.0%	16.7%	18.2%	25.0%	.0%	19.7%	16.9%
	2	41.7%	36.7%	66.7%	27.3%	25.0%	50.0%	36.7%	39.8%
	3	27.8%	18.3%	16.7%	27.3%	21.4%	16.7%	21.8%	24.1%
	4	16.7%	10.0%	.0%	27.3%	14.3%	.0%	12.9%	12.0%
	5	.0%	5.0%	.0%	.0%	14.3%	.0%	4.8%	4.8%
	6	.0%	.0%	.0%	.0%	.0%	33.3%	1.4%	1.2%
	7	.0%	1.7%	.0%	.0%	.0%	.0%	.7%	.0%
	8	.0%	1.7%	.0%	.0%	.0%	.0%	.7%	.0%
	9	.0%	1.7%	.0%	.0%	.0%	.0%	.7%	.0%
	10	2.8%	.0%	.0%	.0%	.0%	.0%	.7%	1.2%
	Count		36	60	6	11	28	6	147

**D4. Monthly Rent or Mortgage Payments**

		Supplier					Overall	Income Eligible	
		ALLEGHEN	BGE	CHOPTANK	CONNECTIV	POTOMAC			SO MD EL
Monthly household rent or mortgage	-9 Refused	5.6%	1.7%	16.7%	9.1%	17.9%	.0%	6.8%	10.8%
	-8 Don't know	13.9%	3.3%	.0%	.0%	7.1%	.0%	6.1%	8.4%
	1 Enter rent/mortgage	80.6%	95.0%	83.3%	90.9%	75.0%	100.0%	87.1%	80.7%
	Count		36	60	6	11	28	6	147

D4\_1. Monthly Rent or Mortgage Payments

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONECTIV	POTOMAC	SO MD EL		
Amount pay for	.00 None	24.1%	12.3%	.0%	10.0%	9.5%	16.7%	14.1%	22.4%
rent/mortgage	42.00	.0%	1.8%	.0%	.0%	.0%	.0%	.8%	1.5%
	63.00	.0%	1.8%	.0%	.0%	.0%	.0%	.8%	.0%
	146.00	.0%	.0%	.0%	.0%	4.8%	.0%	.8%	.0%
	150.00	.0%	.0%	.0%	.0%	4.8%	.0%	.8%	.0%
	175.00	3.4%	.0%	.0%	.0%	.0%	.0%	.8%	1.5%
	200.00	.0%	3.5%	.0%	.0%	.0%	.0%	1.6%	1.5%
	250.00	.0%	1.8%	.0%	.0%	.0%	.0%	.8%	.0%
	300.00	6.9%	1.8%	20.0%	.0%	.0%	.0%	3.1%	6.0%
	326.00	.0%	.0%	.0%	10.0%	.0%	.0%	.8%	1.5%
	345.00	.0%	1.8%	.0%	.0%	.0%	.0%	.8%	1.5%
	350.00	3.4%	1.8%	.0%	.0%	.0%	.0%	1.6%	.0%
	380.00	3.4%	.0%	.0%	.0%	.0%	.0%	.8%	.0%
	390.00	3.4%	.0%	.0%	.0%	.0%	.0%	.8%	.0%
	400.00	3.4%	1.8%	.0%	10.0%	.0%	.0%	2.3%	3.0%
	425.00	3.4%	.0%	.0%	.0%	.0%	.0%	.8%	.0%
	450.00	6.9%	1.8%	.0%	.0%	.0%	.0%	2.3%	3.0%
	451.00	.0%	.0%	.0%	.0%	.0%	16.7%	.8%	1.5%
	460.00	.0%	3.5%	.0%	.0%	.0%	.0%	1.6%	1.5%
	500.00	.0%	5.3%	40.0%	.0%	.0%	.0%	3.9%	1.5%
	502.00	.0%	1.8%	.0%	.0%	.0%	.0%	.8%	.0%
	550.00	.0%	3.5%	.0%	.0%	4.8%	.0%	2.3%	3.0%
	565.00	.0%	1.8%	.0%	.0%	.0%	.0%	.8%	.0%
	580.00	3.4%	.0%	.0%	.0%	.0%	.0%	.8%	.0%
	600.00	3.4%	5.3%	.0%	.0%	.0%	16.7%	3.9%	4.5%
	612.00	.0%	3.5%	.0%	.0%	.0%	.0%	1.6%	.0%
	630.00	.0%	1.8%	.0%	.0%	.0%	.0%	.8%	.0%
	633.00	.0%	.0%	.0%	10.0%	.0%	.0%	.8%	1.5%
	638.00	.0%	1.8%	.0%	.0%	.0%	.0%	.8%	.0%
	650.00	3.4%	.0%	.0%	.0%	.0%	.0%	.8%	1.5%
	670.00	3.4%	.0%	.0%	.0%	.0%	.0%	.8%	.0%
	700.00	3.4%	1.8%	20.0%	10.0%	.0%	33.3%	4.7%	6.0%
	725.00	3.4%	.0%	.0%	.0%	.0%	.0%	.8%	1.5%
	728.00	.0%	1.8%	.0%	.0%	.0%	.0%	.8%	1.5%
	750.00	.0%	1.8%	.0%	.0%	.0%	.0%	.8%	1.5%
	800.00	3.4%	1.8%	.0%	.0%	19.0%	.0%	4.7%	1.5%
	815.00	.0%	1.8%	.0%	.0%	.0%	.0%	.8%	.0%
	841.00	.0%	1.8%	.0%	.0%	.0%	.0%	.8%	1.5%
	850.00	3.4%	1.8%	.0%	.0%	9.5%	.0%	3.1%	4.5%
	855.00	.0%	.0%	.0%	.0%	4.8%	.0%	.8%	.0%
	864.00	.0%	1.8%	.0%	.0%	.0%	.0%	.8%	.0%
	875.00	.0%	.0%	20.0%	.0%	.0%	.0%	.8%	1.5%

877.00	.0%	1.8%	.0%	.0%	.0%	.0%	.8%	.0%
898.00	.0%	1.8%	.0%	.0%	.0%	.0%	.8%	1.5%
900.00	3.4%	3.5%	.0%	.0%	.0%	.0%	2.3%	3.0%
950.00	.0%	.0%	.0%	10.0%	4.8%	.0%	1.6%	1.5%
1000.00	.0%	3.5%	.0%	10.0%	4.8%	.0%	3.1%	.0%
1073.00	.0%	.0%	.0%	.0%	4.8%	.0%	.8%	.0%
1100.00	3.4%	1.8%	.0%	.0%	.0%	.0%	1.6%	.0%
1200.00	3.4%	3.5%	.0%	10.0%	9.5%	.0%	4.7%	7.5%
1300.00	.0%	1.8%	.0%	.0%	4.8%	.0%	1.6%	1.5%
1400.00	.0%	1.8%	.0%	10.0%	4.8%	.0%	2.3%	1.5%
1600.00	.0%	.0%	.0%	10.0%	.0%	.0%	.8%	1.5%
1685.00	3.4%	.0%	.0%	.0%	.0%	.0%	.8%	1.5%
1700.00	.0%	.0%	.0%	.0%	4.8%	.0%	.8%	.0%
1756.00	.0%	.0%	.0%	.0%	4.8%	.0%	.8%	1.5%
1800.00	.0%	5.3%	.0%	.0%	.0%	.0%	2.3%	3.0%
2000.00	.0%	3.5%	.0%	.0%	.0%	16.7%	2.3%	.0%
Count	29	57	5	10	21	6	128	67

**D4a. Owe Rent Payments for Previous Months at Current Address**

		Supplier				Overall	Income Eligible
		ALLEGHEN	BGE	CONECTIV	POTOMAC		
Owes rent for previous months at current address	1 Yes	.0%	4.3%	100.0%	.0%	4.9%	.0%
	2 No	100.0%	95.7%	.0%	100.0%	95.1%	100.0%
	Count	5	23	1	12	41	14

**D4b. Owe Mortgage Payments for Previous Months at Current Address**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONECTIV	POTOMAC	SO MD EL		
Owes mortgage payments for previous months at current address	-9 Refused	.0%	.0%	16.7%	.0%	6.3%	.0%	1.9%	1.4%
	-8 Don't know	3.2%	.0%	.0%	.0%	.0%	.0%	1.0%	1.4%
	2 No	96.8%	100.0%	83.3%	100.0%	93.8%	100.0%	97.1%	97.1%
	Count	31	35	6	10	16	6	104	69

**D5. Current Marital Status**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONNECTIV	POTOMAC	SO MD EL		
Current marital status	1 Married	83.3%	41.7%	66.7%	54.5%	39.3%	66.7%	54.4%	59.0%
	2 Widowed	8.3%	25.0%	16.7%	.0%	17.9%	.0%	16.3%	14.5%
	3 Divorced	5.6%	8.3%	.0%	18.2%	7.1%	33.3%	8.8%	7.2%
	4 Separated	.0%	3.3%	16.7%	18.2%	.0%	.0%	3.4%	3.6%
	5 Never married	2.8%	21.7%	.0%	9.1%	35.7%	.0%	17.0%	15.7%
	Count	36	60	6	11	28	6	147	83

**D6. Someone in Household Received Paid Employment Last Month**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONNECTIV	POTOMAC	SO MD EL		
Anyone in household receive paid employment over the last month	1 Yes	66.7%	55.0%	50.0%	72.7%	64.3%	66.7%	61.2%	62.7%
	2 No	33.3%	45.0%	50.0%	27.3%	35.7%	33.3%	38.8%	37.3%
	Count	36	60	6	11	28	6	147	83

**D6a. Number of Adults Working Last Month**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONNECTIV	POTOMAC	SO MD EL		
Number of adults receiving paid employment over the last month	1	41.7%	57.6%	66.7%	50.0%	55.6%	25.0%	51.1%	50.0%
	2	45.8%	36.4%	33.3%	50.0%	38.9%	75.0%	42.2%	46.2%
	3	12.5%	3.0%	.0%	.0%	5.6%	.0%	5.6%	3.8%
	4	.0%	3.0%	.0%	.0%	.0%	.0%	1.1%	.0%
	Count	24	33	3	8	18	4	90	52

**D6b1. Number of Hours First Adult Worked Per Week Last Month**

		Supplier						Overall	Income Eligible	
		ALLEGHEN	BGE	CHOPTANK	CONNECTIV	POTOMAC	SO MD EL			
Number of hours worked per week by the first adult	5.00	.0%	.0%	.0%	12.5%	.0%	.0%	1.1%	1.9%	
	6.00	.0%	.0%	.0%	.0%	5.6%	.0%	1.1%	1.9%	
	16.00	.0%	.0%	.0%	.0%	.0%	25.0%	1.1%	.0%	
	20.00	8.3%	9.1%	.0%	12.5%	5.6%	.0%	7.8%	7.7%	
	25.00	.0%	3.0%	.0%	12.5%	.0%	.0%	2.2%	1.9%	
	30.00	12.5%	3.0%	66.7%	.0%	.0%	.0%	6.7%	7.7%	
	32.00	.0%	3.0%	.0%	.0%	.0%	.0%	1.1%	.0%	
	35.00	.0%	.0%	.0%	.0%	5.6%	50.0%	3.3%	3.8%	
	40.00	62.5%	48.5%	33.3%	25.0%	66.7%	.0%	51.1%	50.0%	
	45.00	4.2%	.0%	.0%	.0%	11.1%	.0%	3.3%	3.8%	
	46.00	4.2%	3.0%	.0%	.0%	.0%	.0%	2.2%	.0%	
	48.00	.0%	3.0%	.0%	12.5%	.0%	.0%	2.2%	1.9%	
	50.00	8.3%	15.2%	.0%	12.5%	5.6%	.0%	10.0%	11.5%	
	55.00	.0%	.0%	.0%	12.5%	.0%	.0%	1.1%	1.9%	
	60.00	.0%	6.1%	.0%	.0%	.0%	25.0%	3.3%	3.8%	
	80.00	.0%	3.0%	.0%	.0%	.0%	.0%	1.1%	1.9%	
	90.00	.0%	3.0%	.0%	.0%	.0%	.0%	1.1%	.0%	
	Count		24	33	3	8	18	4	90	52

**D6b2. Number of Hours Second Adult Worked Per Week Last Month**

		Supplier						Overall	Income Eligible	
		ALLEGHEN	BGE	CHOPTANK	CONNECTIV	POTOMAC	SO MD EL			
Number of hours worked per week by the second adult	10.00	.0%	.0%	.0%	.0%	.0%	33.3%	2.3%	3.8%	
	20.00	14.3%	.0%	.0%	.0%	.0%	.0%	4.5%	7.7%	
	24.00	7.1%	.0%	.0%	.0%	.0%	.0%	2.3%	3.8%	
	25.00	7.1%	.0%	100.0%	.0%	.0%	.0%	4.5%	7.7%	
	30.00	7.1%	.0%	.0%	.0%	.0%	.0%	2.3%	3.8%	
	32.00	7.1%	.0%	.0%	.0%	.0%	33.3%	4.5%	.0%	
	34.00	.0%	7.1%	.0%	.0%	.0%	.0%	2.3%	3.8%	
	35.00	.0%	.0%	.0%	.0%	.0%	12.5%	33.3%	4.5%	3.8%
	38.00	7.1%	.0%	.0%	.0%	.0%	.0%	2.3%	.0%	
	40.00	50.0%	71.4%	.0%	75.0%	75.0%	.0%	59.1%	53.8%	
	45.00	.0%	7.1%	.0%	.0%	.0%	12.5%	4.5%	3.8%	
	50.00	.0%	7.1%	.0%	.0%	.0%	.0%	2.3%	3.8%	
	60.00	.0%	.0%	.0%	25.0%	.0%	.0%	2.3%	3.8%	
	61.00	.0%	7.1%	.0%	.0%	.0%	.0%	2.3%	.0%	
	Count		14	14	1	4	8	3	44	26

**D7. Credit Card Balance Status**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONNECTIV	POTOMAC	SO MD EL		
During the last 12 months, carried a balance on credit cards or paid off every month	-9 Refused	.0%	1.7%	.0%	.0%	.0%	.0%	.7%	.0%
	-7 No credit card	11.1%	40.0%	16.7%	18.2%	39.3%	16.7%	29.3%	25.3%
	1 Carry balance	41.7%	36.7%	50.0%	81.8%	46.4%	66.7%	44.9%	42.2%
	2 Pay off at end of month	47.2%	21.7%	33.3%	.0%	14.3%	16.7%	25.2%	32.5%
	Count	36	60	6	11	28	6	147	83

**D7a. Currently Owe More than \$500 on Previous Months Credit Card Balance**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONNECTIV	POTOMAC	SO MD EL		
Currently owe more than \$500 for credit card bills from previous months	-9 Refused	.0%	.0%	.0%	11.1%	.0%	.0%	1.5%	2.9%
	1 Yes	40.0%	81.8%	100.0%	55.6%	69.2%	100.0%	68.2%	60.0%
	2 No	60.0%	18.2%	.0%	33.3%	30.8%	.0%	30.3%	37.1%
	Count	15	22	3	9	13	4	66	35

**D8. Currently Owe More than \$250 for Medical Bills**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONNECTIV	POTOMAC	SO MD EL		
Owe more than \$250 for medical bills	-8 Don't know	2.8%	3.3%	.0%	.0%	.0%	.0%	2.0%	3.6%
	1 Yes	8.3%	16.7%	33.3%	18.2%	32.1%	66.7%	20.4%	16.9%
	2 No	88.9%	80.0%	66.7%	81.8%	67.9%	33.3%	77.6%	79.5%
	Count	36	60	6	11	28	6	147	83

**D9. Has Checking or Savings Account**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONNECTIV	POTOMAC	SO MD EL		
Checking account, a savings account, or both	-9 Refused	2.8%	.0%	16.7%	.0%	.0%	.0%	1.4%	2.4%
	1 Checking account	22.2%	21.7%	.0%	18.2%	17.9%	66.7%	21.8%	13.3%
	2 Savings account	2.8%	6.7%	33.3%	.0%	3.6%	.0%	5.4%	6.0%
	3 Both	72.2%	56.7%	50.0%	63.6%	64.3%	33.3%	61.2%	71.1%
	4 Neither	.0%	15.0%	.0%	18.2%	14.3%	.0%	10.2%	7.2%
Count	36	60	6	11	28	6	147	83	

**D10a. Typical Monthly Balance Amount**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONECTIV	POTOMAC	SO MD EL		
Amount in checking, savings, or both accounts combined	-9 Refused	5.7%	3.9%	.0%	11.1%	8.3%	.0%	5.4%	9.3%
	-8 Don't know	2.9%	3.9%	.0%	11.1%	.0%	.0%	3.1%	1.3%
	1 Less than \$100	17.1%	33.3%	20.0%	11.1%	29.2%	16.7%	25.4%	16.0%
	2 Between \$100 and \$250	20.0%	15.7%	.0%	11.1%	29.2%	33.3%	19.2%	16.0%
	3 Between \$250 - \$500	8.6%	9.8%	20.0%	22.2%	4.2%	.0%	9.2%	9.3%
	4 Between \$500 and \$1,000	11.4%	13.7%	20.0%	.0%	.0%	16.7%	10.0%	14.7%
	5 Greater than \$1,000	34.3%	19.6%	40.0%	33.3%	29.2%	33.3%	27.7%	33.3%
Count		35	51	5	9	24	6	130	75

**S1. Pays Directly for Electricity**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONECTIV	POTOMAC	SO MD EL		
Pay directly for electricity	1 Yes	100.0%	100.0%	83.3%	100.0%	89.3%	100.0%	97.3%	97.6%
	2 No	.0%	.0%	16.7%	.0%	10.7%	.0%	2.7%	2.4%
	Count	36	60	6	11	28	6	147	83

**S2. Number of People Living in Household**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONECTIV	POTOMAC	SO MD EL		
Number of people living in household	1	11.1%	25.0%	16.7%	27.3%	25.0%	.0%	20.4%	18.1%
	2	41.7%	41.7%	66.7%	18.2%	32.1%	50.0%	39.5%	41.0%
	3	27.8%	11.7%	16.7%	27.3%	14.3%	16.7%	17.7%	19.3%
	4	16.7%	13.3%	.0%	27.3%	14.3%	.0%	14.3%	14.5%
	5	.0%	3.3%	.0%	.0%	14.3%	.0%	4.1%	4.8%
	6	.0%	1.7%	.0%	.0%	.0%	33.3%	2.0%	1.2%
	7	.0%	1.7%	.0%	.0%	.0%	.0%	.7%	.0%
	9	.0%	1.7%	.0%	.0%	.0%	.0%	.7%	.0%
	10	2.8%	.0%	.0%	.0%	.0%	.0%	.7%	1.2%
	Count	36	60	6	11	28	6	147	83

**S3. Total Household Income Before Taxes**

		Supplier						Overall	Income Eligible
		ALLEGHEN	BGE	CHOPTANK	CONECTIV	POTOMAC	SO MD EL		
Total household income	-9 Refused	13.9%	5.0%	33.3%	18.2%	3.6%	.0%	8.8%	15.7%
	-8 Don't know	5.6%	1.7%	.0%	9.1%	7.1%	16.7%	4.8%	8.4%
	1 Yes	25.0%	60.0%	16.7%	45.5%	39.3%	33.3%	43.5%	.0%
	2 No	55.6%	33.3%	50.0%	27.3%	50.0%	50.0%	42.9%	75.9%
	Count	36	60	6	11	28	6	147	83