

**Attorney General First Set Data Requests
Duke Energy Kentucky Case No. 2007-00369
Date Received: December 27, 2007
Response Due Date: January 16, 2008**

AG-DR-01-028

REQUEST:

Please provide a cost breakdown for all Program Administration, Development and Evaluation costs associated with the Company's Kentucky DSM programs (such breakdown need not disclose individual salaries of personnel employed by the Company).

RESPONSE:

The expenditures are provided in Appendix J, page 1, of the Company's filing in case No. 2007-00369. The expenditures were for program evaluation.

PERSON RESPONSIBLE: Michael Goldenberg
Kathy Schroder

**Attorney General First Set Data Requests
Duke Energy Kentucky Case No. 2007-00369
Date Received: December 27, 2007
Response Due Date: January 16, 2008**

AG-DR-01-029

REQUEST:

Please reference the Application at page 20. Indicate where the most recent evaluation study results concerning the Payment Plus Program (formerly Home Energy Assistance Plus Program) may be found within the application.

RESPONSE:

The most recent Payment Plus Evaluation was included in the Company's filing in Case No. 2006-00426. A copy of the evaluation is provided at Attachment AG-DR-01-029.

PERSON RESPONSIBLE: Richard G. Stevie

Final Draft Report

An Evaluation of the Payment Plus Pilot Program

Results of a Process, Energy Consumption
and Arrearage Effects Evaluation

September 12, 2006

Prepared for

Duke Energy

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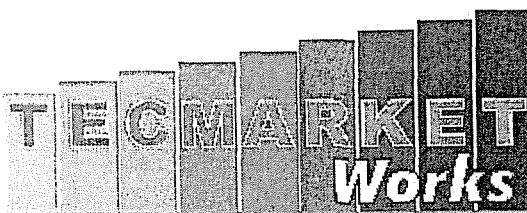


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Executive Summary

About This Report

This report presents the results of a process and impact evaluation of Duke Energy’s Payment Plus Pilot Program. This program provides energy efficiency, conservation and financial management training to participants along with home weatherization services. Participants receive financial incentives in the form of arrearage credits to their account in order to encourage participation. Together the training and weatherization services are expected to lower participant’s utility bills and improve their payment performance. The program was first implemented from January through May of 2002 (Pilot Program I). The program was evaluated, modified and implemented again in June through November 2003 (Pilot Program II). Pilot III was implemented from December 2003 through March 2004 to test modifications to the program implemented after the completion of Pilot Program II. This report presents the evaluation results from a process evaluation of Pilot Program IV, implemented in August and September of 2004), and an effects evaluation (arrearage, payments and energy savings) of Pilot Programs I, II and III.

This report is presented in five sections as noted in the following table.

Table 1 Evaluation Report Contents

Section One: Pilot Program IV	Section Two: Pilot Program IV	Sections Three - Five: Pilot Programs I, II, and III
1. Interview results with program designers, managers and implementers	2. Interview results with participants	3. Assessment of weather-normalized energy savings, 4. Assessment of arrearage effects, 5. Assessment of payment effects

The first section provides the results from the Pilot Program IV process evaluation. The process evaluation employed in-depth interviews with program design, planning and implementation staff.

The evaluation efforts employed to develop the findings presented in section two included reviews of monthly-metered energy consumption records of Pilot Program I, II and III participants and a comparison group of matched non-participants. The analysis presented in section two is an assessment of the program’s energy impacts and employs a weather-normalized assessment of pre- and post-program energy use adjusted to account for normal changes in consumption through the use of a comparison group. Section three presents the assessment of the programs’ effects on arrearage levels, and section four includes the assessment of various payment effects such as the number of days needed to pay the bill and the percent of the billed amount paid. Sections three and four also employ the use of a matched comparison group to assess the net effects of the program on arrearage levels and payment effects. Finally, the findings presented in section five are the results of the customer interviews conducted in 2006 with Pilot IV participants and

those that enrolled but did not participate. These findings are compared to the sections of the participant survey completed in 2003 with Pilot II participants.

The findings presented in sections two through four are based on the reviews of the usage data for 2 to 17 Pilot I participants (depending on the analysis conducted) who had at least one year pre and two years of post-program account information. Because of the small size of the Pilot I population the findings associated with Pilot I participants should be assessed with caution. The findings for Pilot Program II are drawn from 36 participants, and Pilot III has 33 participants, each having at least one year of pre and one year of post-program energy usage and account information. These findings from Pilots II and III are more reliable than the findings from Pilot I.

Summary of Findings

An overview of the key findings identified through this evaluation is presented in this section.

This program has been evaluated over a number of years in its “pilot” status. These evaluations show that the program has evolved to point where the implementation efforts are efficient and effective, and customer satisfaction is high. In addition, the evaluations show strong and long-term natural gas energy savings, short-term electric savings and to some degree, impacts on arrearage and payment levels. TecMarket Works recommends that the Payment Plus move beyond the pilot status into a standard program component of Duke’s low-income service portfolio.

Significant Process Evaluation Findings

Pilot IV

TecMarket Works interviewed seven individuals associated with the design, management and operations of the program and reviewed the energy and budgeting workshop materials. The significant findings from these activities are reported below:

1. The process used to enroll Crisis participants has improved to the level at which the Northern Kentucky Community Action Commission (NKCAC) has to turn down applicants. The latest Pilot Program was at full capacity. All potential enrollees should continue to be pre-screened before the program is offered to make sure that the program is only offered to eligible customers.
2. The communications and working relationships between People Working Cooperatively (PWC) and NKCAC have significantly improved. There is better and more consistent coordination of services, with times and dates of Pilot training sessions rapidly communicated between the organizations, PWC has been available to attend training sessions and answer questions about the weatherization. This has increased enrollments into the weatherization program.

In addition, Duke managers have been given advanced notice of meetings, allowing their participation.

3. PWC has made an effort to contact landlords to help Pilot participants obtain the needed permission for weatherization. While contact is difficult, when accomplished, the landlords have been positive about the program and allowed weatherization to go forward. However, this issue remains a participation barrier for renters.
4. The interviewed managers at NKCAC and PWC report that they would like to see the following program changes:
 - a. Continue to try and reach the more rural areas of the targeted counties. If these customers can be cost effectively served, recruit and provide training sessions throughout the counties into more rural areas of the service territory to allow more rural low-income customers an opportunity to participate without having to travel great distances.
 - b. Let the service providers know that they are free to piggy-back or coordinate the program with other social services provided by the implementation agencies to expand services and increase demand and enrollment success.

Significant Participant Interview Findings

Pilot IV

TecMarket Works was able interview twenty-five participants of the Pilot IV Program. The significant findings from these interviews are reported below:

1. The driving force for participation was to receive the bill credits. Eighty percent cited the credits as the primary reason they chose to enroll. Thirty-six percent said that they participated in order to learn how to save energy.
2. Program participants understood the program and the procedure for applying their credits better than in the past. This was an area of confusion for past participants that appears to have been eliminated.
3. Reported problems with getting the credits applied to their bills has dropped significantly. Very few of these issues are now being raised by participants. The process involved in applying credits was streamlined after the previous evaluation, with the intent of reducing or eliminating these types of complaints. This goal appears to have been achieved.
4. Participants are still very satisfied with the Training Sessions. On a scale of 1-10, average scores for all aspects of the training sessions were high across most response categories for both sessions (energy & budgeting). Satisfaction was

particularly high when rating the instructor's knowledge (9.4 & 9.6), comprehensiveness of subject matter (9.2 & 9.3), and presentation skills of instructor (9.2 & 9.4). The convenience of attending the session was the only response group that received satisfaction scores below 9 (8.6 & 8.8) indicating that there was less satisfaction with the convenience of attending the sessions, but these satisfaction scores are very good scores when using a 10-point scale.

Significant Energy Consumption Analysis Findings

Pilots I, II and III Combined

TecMarket Works examined customer billing and payment records for three of the Pilot Programs' participants for a period of at least six months prior to the program and from one to four years following the program. The results of this analysis are presented below and in Sections Three and Four of this report. The combined energy impact analysis results include:

1. Over the longer period of this study the pilot participants have not been able to reduce their electrical consumption. This is different from the previous evaluation in which the participants experienced reduced electric consumption.
2. Pilot participants who were not weatherized are still able to decrease their consumption of natural gas in all Pilots except Pilot I. The weatherized participants over the successive pilots continue to save natural gas.
3. Weatherization is a key component of the Payment Plus Pilot Program for savings natural gas over the long-term. While kilowatt-hour savings are no longer present, participants have experienced electric savings for a significant period of time in past evaluations. These savings have eroded as the months and years have passed. It may be possible to recoup some of these savings by re-communicating tips on how to save electricity with past participants, or by allowing past participants to re-enroll in the energy training session (with or without program credits). However, these follow-up efforts may need to be cost effective, a difficult challenge when the extra savings may be additional short-term electric savings.

Significant Billing Analysis Evaluation Findings

Each of the Pilots are discussed separately in this section.

Pilot I

When reading the results of this assessment the reader is cautioned about using these findings as conclusive. There were not many participants that had enough pre- and post-program billing and payment data to include in the assessment. This means that the sample's precision level and the confidence interval are not rigorous enough to draw decisive conclusions, but instead should be considered indicators of results. Significant finding from the billing analysis include:

1. Arrearage levels for participants have substantially decreased in the years following participation (from \$719 to \$434), and non-participant arrearage levels increased slightly.
2. Likewise, there is also a trend suggesting that participants are beginning to pay a higher portion of their bill following participation. Participants paid, on average, about 47% of their utility bill during any given month before the program. Since participation, they have increased the percent of the bill paid to just over 56%. Participants appear to be increasing this amount while non-participants appear to be decreasing this amount.
3. Pilot I participants have been successful at decreasing their disconnection rates relative to the comparison group. In the post-program years, the comparison group has had a disconnection rate of 5.97%, while the participants have kept their disconnection rate quite low at 2.24%.

Pilot II

TecMarket Works examined customer billing and payment records for a period of two years prior to the program and for three years following the Pilot II program (although some months are excluded due to poor sample size). The results of this analysis are presented below and in Sections Three and Four of this report. Significant findings include:

1. Pilot II participants have experienced a decrease in their arrearage levels in the months after participation. In the two years of post-program months, arrearages decreased by an average of 13%, whereas the comparison group arrearages increased by 7%.
2. Participants were able to limit the level of erosion of the amount of the payments they made each month relative to the total amount due on their bills. Participants were paying about 51% of the amount due before the program, after participation, they paid about 45% of the total bill. Likewise, the comparison group also decreased the amount they paid relative to what they owed during the same time, dropping from 45% to 30% of the bill paid.

Pilot III

Pilot III has the strongest sample size for this analysis. There were typically data from at least 30 participants in each of the months analyzed, and a very strong comparison group of about 100-500 customers.

1. The mean arrearages of the Pilot III participants have increased slightly since participating in the program, at about the same level as the comparison group. There has been little change in this area.

2. Disconnections have decreased since participation. Before the program, the disconnection rate was 3.1%, and since then it has dropped to 2.4%. The comparison group's disconnection rate has increased from 3.8% to 4.4% in this same time period.
3. The percent of the bill paid by Pilot III participants has remained steady, while the comparison group has been paying less of their bill during the same time period.

Introduction

This report presents the results of a mini process evaluation of the Payment Plus Pilot Program IV and an effects evaluation of Pilot Programs I, II and III. The process evaluation examined Pilot Program IV operations while the effects evaluation examined the effects of the program on the payment effects and energy consumption of Pilot Program I, II and III participants.

To conduct the process evaluation we interviewed program managers, designers and implementers employed the Northern Kentucky Community Action Commission (NKCAC), and People Working Cooperatively (PWC).

Program Description – Payment Plus Pilot Programs III and IV

The Payment Plus Pilot Program is a small test program originally contracted to be implemented in six counties in northern Kentucky during the period from January to May of 2004. However, the program provider was unable to meet this obligation and the program was implemented in only two counties. Of those that participated, most participants came from Boone, Kenton or Campbell counties; however, one or two participants each came from Gallatin, Grant and Pendleton counties. In total 90 participants enrolled and participated in Pilot III, and 120 enrolled in Pilot IV. Each successive Pilot is designed or is operated somewhat differently than the others, allowing Duke Energy to obtain experience in different configurations of the program.

The primary purpose of the Pilot Program is to help low-income customers with significant arrearage and payment problems obtain the information and skills needed to control their consumption, reduce their utility bills and be capable of managing their energy accounts in a way that results in lower arrearage levels. The program provides each participant with significant credits (up to \$500.00) to their past-due arrearage levels in an effort to help move them out of debt and improve payment behaviors.

The program has three phases of service delivery. The first phase is participation in an energy education workshop designed to teach participants how to manage their energy use. The second phase is a workshop on financial management designed to teach participants how to manage their financial affairs so that they can live within their income levels and pay their bills on time. The third phase is a weatherization service in which their home is weatherized to make it more energy efficient. Participants were required to complete the energy workshop, but were not required to attend the budgeting workshop or have their home weatherized. However, to obtain the \$500 participation credit the participants need to complete all three phases of the program. For further details on how the credits are applied, see Item 4 in Program Theory and Operations on page 10.

The program is funded by Duke Energy and implemented by the Northern Kentucky Community Action Commission (NKCAC) in concert with People Working Cooperatively (PWC). NKCAC manages and administers the program and provides the participant training services. After the participants receive the program training and

during the weatherization services, the participants are referred to the state for additional weatherization services that are not provided under the Duke program.

Pilot Program IV was designed to build on the experience of Pilot Program I, II and III, and to continue the testing of the program. The Pilot Program IV effort was planned to serve 120 participants who had high levels of debt (arrearage) to Duke Energy.

The participants attended one or two training sessions (energy education and budgeting) and 45 of the 120 participants participated in the weatherization program. Attendance at the budgeting session and participation in the weatherization program were optional. Full participants took advantage of all three components of the program and received \$500 dollars in arrearage credits, free weatherization of their homes, and training that provides them with the skills they need to conserve energy and better manage their household budgets. These participants realized the greatest benefits from the program in terms of incentives and in reduced energy consumption. Other participants enrolled in the program, attended the first training session (energy) and did not attend the second session but went on to obtain weatherization services, or attended the second session but did not go on to obtain weatherization services. These “partial” participants received partial credits depending on which components of the program they completed.

Program Theory and Operations

The program theory is simple and easily understood. The primary theory is founded on the belief that many low-income customers with high arrears can gain improved control over their bills and begin to pay down their utility debt if they are provided with the skills and support services needed to assist them through this effort. The program is grounded in the theory that providing participants with a significant reduction to their current arrears will place them in a better position to gain control over their utility bill. The credits provided by the program provide a financial helping-hand to the participants. However, the program is also designed from the theory that participants need more than financial assistance to be able to effectively manage their account. As a result, the program provides training on how to reduce consumption by implementing effective energy management strategies. In addition to the energy training, the program also weatherizes their home so that it is technically more energy efficient. Combined, the training and the weatherization measures provide a foundation for reducing consumption to be more consistent with participant’s ability to pay for that consumption. Finally, the program theory indicates that the participant’s ability to manage their energy bill is, to some degree, a function of their financial management skills. To improve participant’s financial management skills the program provides educational efforts aimed at helping participants establish household budgets and live within their budget. The program theory is based on the belief that these three program services, linked with substantial bill credits to start them on an improved payment path, provides a platform from which participants can begin to gain control over their accounts.

The Pilot Program IV services were implemented through a series of efforts that were coordinated across the contractor teams. The implementation tasks are described below:

1. NKCAC agreed to manage and administer the program for Duke Energy through a contractual agreement between the two organizations.
2. Duke Energy identified low-income customers who had high arrears and who might need help in gaining control over their bills. (High arrears are undefined by Duke Energy, but typically mean that the customer had an arrearage above the \$300 in total credits provided by the program, with a few exceptions as determined by Duke Energy.)
3. The individuals on the Duke Energy list were contacted by NKCAC via a program introduction letter explaining the program and requesting that interested customers contact NKCAC to enroll in the program. The goal of the outreach effort was to enroll 120 participants. NKCAC supplemented this effort with phone calls to improve the enrollment response from the letter.
4. Program participants were required to successfully complete one task. The other two tasks were optional. These were:
 - a. Required Task: Attend one of the Energy Efficiency Training Sessions held in August and September of 2004. These workshops discussed and demonstrated methods to reduce energy consumption and gain control over their energy bill. In return, participants received a credit of \$200 applied to their arrearage.
 - b. Optional Task 1: Attend a Financial Management Session held in August and September of 2004, which discussed and demonstrated household budgeting and management techniques to help participants understand their income levels and be able to live at or below their income level. In return for attending this second training session, the participants received a \$150 credit that was applied to their arrearage.
 - c. Optional Task 2: Receive an energy audit of their home to identify measures needed to lower energy costs, and receive weatherization services consistent with the audit results, program offerings, and approved measures. Both homeowners and renters could receive weatherization services. However, if the participant rented, they needed to obtain the permissions of the owner to conduct the audit and install the weatherization measures. After weatherization is complete, the customer received a credit of \$150 to their arrearage. This weatherization service is a separate but coordinated program that is offered in conjunction with the Payment Plus Program. The weatherization program is an ongoing program funded by Duke Energy and run by the NKCAC.

Evaluation Methodology

The study methodology consisted of four parts. These are:

1. A process evaluation of Pilot Program IV in which TecMarket Works interviewed key program managers and staff in late June. The interviews were designed to review program operations and experiences and to identify and discuss implementation issues associated with the program's design or operations, particularly associated with problem areas identified in previous studies;
2. A weather-normalized energy usage analysis to determine if participation in the first three Pilot Programs resulted in energy-related consumption changes; and
3. An arrearage analysis in which TecMarket Works examined Pilot I, II and III participant's billing and payment streams to determine if the program had an effect on how bills are paid and how arrearages are managed.
4. A survey of Pilot IV enrollees was conducted to measure satisfaction levels, to identify implementation issues, and to identify barriers to program participation.

Mini Process Evaluation

The mini process evaluation included onsite interviews with key Duke Energy, NKCAC, and PWC program delivery staff. These interviews focused on the design, planning, and implementation of the program and a review of the goals and objectives associated with the program. Interviews were conducted with the following individuals.

1. Kathy Schroder, Duke Program Manager
2. Florence Tandy, NKCAC Director
3. Pamela Whitehorn, NKCAC Program Implementation Manager
4. Lillian Caldwell, NKCAC Educational Director
5. Nina Creech, PWC Weatherization Program Manager
6. Stacy O'Leary, PWC Program Operations Staff
7. Diana Adams, PWC Program Operations Staff
8. Al Loving, PWC Weatherization Program Supervisor

The interviews were conducted in June 2006, and followed a formal evaluation interview protocol. This protocol is provided in Appendix A of this report and allows the reader to see the range and scope of the questions addressed during the mini process interviews.

Energy Savings Analysis

Energy savings for Pilot Program I, II and III participants were determined by looking at the change in energy usage of the participants compared to the change in usage of a comparison group of eligible customers who did not participate in the program. The Princeton Scorekeeping Method (PRISM™)™ software was utilized in this analysis. PRISM™ is capable of providing weather-normalized data analysis of energy use. Analysis was done on eight groups of participants for both kWh and therm consumption. The groups are: weatherized participants from each of the three Pilots analyzed, non-weatherized participants from each of the Pilots, and then the three pilots were combined to get results from the Pilot Program over the three Pilots.

The analysis used two matched comparison groups of low-income customers who had not been weatherized, had two or three years of billing data, and had arrearage levels of \$500 or more at some point in the study period. The comparison group was analyzed to be sure that the mix of customer's energy needs were similar. The same comparison group used in a previous evaluation was used with the participants' data from Pilots I and II and contained reliable data from 49 customers for therm comparison and 20 for kWh comparison. A new comparison group was pulled for the Pilot III analysis that contained 95 customers for therm comparison and 36 customers for kWh comparison. These comparison groups were combined when the overall analysis of the combined three Pilots was performed, resulting in a comparison group of 157 customers for the therm comparison, and 56 for the kWh comparison.

After the comparison groups were selected by Duke Energy, data cleaning was conducted to eliminate those customers that did not have sufficient data for the study or included accounts in which there was a tenant change and resulted in the comparison population sizes reported above. These customers were randomly assigned false participation dates to establish the pre- and post-program analysis periods for the comparison group.

Participants' data was also separated into pre and post periods. Participants who were weatherized at some point after the program workshops had their pre data begin before the workshops and their post data begins two months after the weatherization measures were completed on their home. Data between these two dates was not included in the analysis. Participants who were not weatherized, or who were weatherized before the pre data started had their post data start two months after participating in the workshops.

The data that was used for this analysis was provided from Duke Energy's monthly-metered account database. The data was provided in therms and kWh per month per customer for up to three years before the program and for up to twenty-four months after the program.

This report presents the savings in kilowatt-hours of electricity and therms of natural gas. Mean and median summaries are provided for each of the groups of participants in order to allow comparisons between the mean and median, which can indicate when a group of participants have a household with unusually high or low savings. A description of the PRISM™ software is below.

PRISM™ Analysis

Program impacts were examined using PRISM™ Advanced Version 1.0 software for Windows developed at Princeton University's Center for Energy and Environmental Studies.

PRISM™ is a commercially available analysis software package designed to estimate energy savings for heating and/or cooling loads in residential and small commercial buildings. The current Advanced Version permits users to enter and edit data from a variety of sources, to carry out sophisticated reliability checks, to eliminate cases that do not meet standards, and to display results in graphical and textual forms.

PRISM™ allows the user to estimate the change in energy consumption per heating or cooling degree-day for the periods before and after measures are installed in homes by combining energy consumption and weather data. By subtracting the estimate of energy use per degree-day after the measures are installed from the value before the measures are installed and multiplying by an appropriate annual degree-day value, total annual normalized energy savings can be estimated.

Degree-days vary from year to year, which potentially presents a problem for deciding on a value for annual degree-days. This is especially problematic if one is trying to determine paybacks. For example, one could normalize the savings to the period preceding the installation of measures or the period after. If one selects a warm period, then savings may be too low and paybacks too long. If one selects a cool period for normalization, then the estimate of paybacks may be too high.

PRISM™ mitigates this problem by effectively averaging temperatures over a twelve-year period and providing an estimate of degree-days that is typical for the region of the study, although not one that necessarily matches the specific weather conditions in any given year. The advantage of normalizing to the PRISM™ recommended period is that the results will be consistent from study to study over a period of time. The same end can be achieved by consistently using the same user selected time frame. For this study (and previous evaluations of the Payment Plus Program) we chose the period from January 1, 1992 through December 31, 2002, recommended by PRISM™ support.

A major feature of PRISM™ is the ability to evaluate cases against reliability criteria. The first criterion is the R^2 value (explained variance), a measure of the fit of the degree-day and energy consumption data, or in statistical lingo, the amount of variance in energy consumption explained by changes in degree-days. Energy consumption is assumed to be a linear function of degree-day. R^2 varies from 0 to 1. If R^2 is close to zero, it means that factors other than outdoor temperature are driving energy consumption. If the R^2 is close to 1 it means that outdoor temperature is almost entirely responsible for energy consumption. Outdoor temperature is usually the overriding factor in both heating and air conditioning fuel use and the goal of the weatherization program is to improve the thermal characteristics of the building shell and the fuel use rate of the heating and air conditioning systems to reduce fuel use related to outdoor temperature. The PRISM™ default for R^2 is at .7. This means that at least seventy percent of energy use is

temperature dependant. If less than 70 percent of the energy used in a building is temperature related, then it becomes difficult to understand the effects of the weatherization measures and the case is dropped from the analysis. We used .7 in this study although all of the R^2 values in this study were .85 or higher. In other words, 85 percent or more of heating fuel use in this study is temperature driven. PRISM™ has a second measure of reliability which is the coefficient of variation for the normalized annual consumption (CV(NAC)). Normalized annual consumption is the amount of fuel consumed by a unit for a typical weather year. When estimating normalized annual consumption some estimates may have a very tight error band while others may have a band that is quite wide. In estimating the average consumption we want estimates of unit consumption that are very close to the actual and we want to eliminate values that may not be very close because they may cause the estimates of the average consumption for all units to vary significantly from the actual. Because the variation in the estimates of normalized annual consumption generally will be higher in homes with higher consumption, the estimate of the variation in normalized annual consumption is divided by the estimate of normalized consumption to obtain CV(NAC). This provides a standardized measure of the variability of the normalized consumption that is comparable across homes. The PRISM™ default for CV(NAC) is 7 percent and that is the value used in this study.

Arrearage Analysis

The arrearage analysis was approached by analyzing changes in monthly arrearage levels for the Pilot I, II and III participants as compared to two comparison groups and comparing changes across these groups over time. Arrearage amounts were established by examining each customer's monthly past due debt. Each of the Pilots were evaluated separately, and then combined to assess the program's overall effects on arrearages and payment effects. Because each Pilot has different program participation dates, the Pilot participants that are included in this analysis varies from month to month throughout the analysis period. This analysis adjusts for changing sample size so that the results are automatically weighted appropriately.

Payment Effects Analysis

Payment effects analysis assessments include the average percent of the bill paid each month for the participants and comparison groups over time, the average number of disconnect orders issued and filled for the participant and test group following program participation, the percent of customers in Pilots I, II and III and the comparison group that made a payment of any amount in each billing cycle, and the average number of days it took customers to pay their bill for the participants and comparison groups for Pilot I, II, and III.

Percent of bill paid was established by calculating the total payments made by the customer and the percent of bill the total payments covered for each customer for each month and calculating an overall average for each group across the pre- and post-program analysis months.

The frequency of disconnects was a simple averaging of the disconnect codes placed in the account record for the participant and comparison group over the pre- and post-program period for Pilot participants.

We also analyzed the *number of days between a billing and a payment* for Pilot participants before and after the program. The estimated number of days uses the bill issue date, (not the date the bill may have been received and/or opened) and the date that the first payment made in that month was recorded. Before analysis of the number of days between the billing and the customer payment, all payments or credits from sources other than the customer (NKCAC, corrections, etc.) were eliminated. As a result the number of days to make a payment toward a bill is based solely on the customer's payments.

Customer Interviews

TecMarket Works' staff conducted interviews with twenty-five customers who enrolled in the Payment Plus Pilot IV Program. The program enrolled 120 participants in October and November of 2005. Of the 120 participants who were enrolled before the first workshop, forty-five finished the program and received all their credits. The remaining participants were Partial Participants, and fit into one of three groups depending on what aspects of the program they completed. The results of these interviews are compared to the results reported in the previous evaluation which included a participant survey of Pilot II participants. The questions were exactly the same, but the survey length was shortened to address satisfaction rates in this evaluation.

Table 2 and

Table 3 present the number of participants and the levels to which they participated in Pilot II and IV.

Table 2 Summary of Participation Status of Pilot II Enrollees

	Dropouts	Participants n = 78			
		Full Participants	Partial Participants n = 45		
Definition:	Enrolled, but did not participate.	Attended both training sessions and received weatherization services	Attended energy training session only	Attended energy and financial management training sessions	Attended energy training session and received weatherization services
Enrollees	25	33	12	27	6
Percent	32%	42%	15%	35%	8%
Credits Provided	\$0	\$500	\$200	\$350	\$350

Table 3 Summary of Participation Status of Pilot IV Enrollees

	Dropouts	Participants n = 121			
		Full Participants	Partial Participants n = 79		
Definition:	Enrolled, but did not participate.	Attended both training sessions and received weatherization services	Attended energy training session only	Attended energy and financial management training sessions	Attended energy training session and received weatherization services
Enrollees	0	42 ^b	16	57 ^a	6
Percent	0%	35%	13%	47%	5%
Credits Provided	\$0	\$500	\$200	\$350	\$350

^a A small portion of this group may still be eligible to receive weatherization services.

^b Note: 17 of these 42 participants were weatherized before their participation in the Payment Plus Program.

There was only one participant interview protocol used for the survey of Pilot IV participants, and it can be found in Appendix B. The previous protocol was not included here as it contains questions that were not asked in this evaluation.

Section I: Pilot Program IV Process Interview Results

This section of the report provides the results of the mini process evaluation. The results are presented for each of the primary researchable issues identified for investigation during the process evaluation planning efforts. These researchable issues were based on the results of the process evaluation of Pilot III done in 2004, in order to gauge the effectiveness of any changes implemented since then.

Outreach and Enrollment Process Has Improved

The program participation goal for Pilot IV was set at 120 customers, and is the number of customers that could be enrolled in the program within the budget set and approved by the Commission. This amount was considered to be a reasonable number that could be handled by the program contractors during the fourth round of the test program and also was considered a reasonable number of participants to support the evaluation. The program enrolled 120 customers who participated in Pilot IV, allowing the program to reach 100% of their participation goal. The method of enrollment for this Pilot was a simple letter sent out to eligible customers, and the demand exceeded the supplied space for the program, with no follow-up phone calls necessary.

The letterhead mast used in the mailing to potential participants included the Duke Energy logos as well as those from NKCAC, but the envelope's return address indicated the mailing was from NKCAC. This approach may have helped improve the recruitment rate over previous programs because the low-income population may trust or be receptive to messages from NKCAC more than Duke Energy.

There is room for expansion of enrollment initiatives if the program is developed from a Pilot program into a full program, and NKCAC indicated that they can recruit more participants. NKCAC also indicates that that can coordinate with other programs and other low-income customers to let them know about the Payment Plus Program.

From the last process evaluation, there were two suggested improvements to the enrollment methods: *a) the enrollment process needs to be improved to increase the enrollment rate of targeted customers, and b) the process for enrolling Crisis participants into the Pilot Program needs to be changed so that the process does not cause damage to [Duke's] customer relationships.* These two issues have been resolved, as the enrollment process now focuses on a list of eligible customers supplied by Duke Energy. As a result, NKCAC indicated that there were no problems filling the classes to capacity, and NKCAC believes that there are many more customers that would enroll in the program if it is offered again.

Changes to the Enrollment Outreach Effort

We previously recommended that the customer enrollment letter should not be relied upon as the primary method of motivating arrearaged customers to join the Program, due to the 5% to 16% enrollment rate from the letters two years ago. However, this is no longer

a concern, as the latest enrollment effort resulted in a demand for the program that exceeded the supply.

A comparison of the enrollment letters suggests there may be some key differences in the two letters that influenced participation decisions. In reviewing the previous 2003 letter and the more recent letter used in 2005, there is a great deal of similarity across the two letters however, there was also a significant amount of dissimilarity as noted below.

The letter used in 2003 was sent on Cinergy letterhead while the letter used in 2005 was sent on stationary that included both the Cinergy letterhead graphics and the letterhead graphics of NKCAC. This new letterhead helped convey the legitimacy of the program to the customer by including the graphics of both of the trusted organizations.

An analysis of the two letters suggest that the previous letter used in 2003 is easier to read and is written at a lower grade-level than the more successful 2005 letter used in the more recent enrollment effort. The previous letter was written at a Flesch Grade Point Level of 7.5 while the recent letter was written at the 8.4 grade level, almost a full grade point difference. The Flesch readability score for the previous letter is 65.2, making it 2 percent easier to read than the current letter with a readability score of 63.1 (note: the higher the score the easier it is to read and understand the letter). These numbers suggest the previous letter would have a higher enrollment rate because it is easier to read and understand. However, this is not the case.

The primary difference in the letters are that the more recent and more successful letter indicates that the customer is part of a “select group” of Duke customer who are being invited to participate in a Pilot Program. This was not indicated in the previous letter. The more recent letter also places Duke as the first mentioned organization to offer the program, listing Northern Kentucky Community Action Commission as the second organization, while in the previous letter the “community action agency” was placed first.

Both letters note that the customer can participate in “*three easy steps*.” However the previous letter says that each participant must attend three 1-hour budget management sessions, while the recent letter says that the participant must attend one 2-hour session on money saving and bill payment tips. This may be the most striking difference between the two letters. Attending a “*budget management*” session may not be the most attractive motivator for this target group, but to require them to attend three such sessions may be a very significant barrier. However, the most recent letter requires the participant to attend only one session on saving money and payment tips; something that is very likely to be a selling point rather than a participation barrier.

A second significant difference is that in the previous letter the customer is told they will receive \$50.00 for attending each of the three budget management sessions, while the newer letter indicates that the participant will receive \$150 for attending the single money saving and payment tips session. The more recent letter provides a less intrusive and more convenient way to get the education (one session instead of three) and pays them more money for their effort (\$150 a session instead of \$50 per session).

Finally, the weatherization step requires the customer to let the “community action agency” weatherize their home, while the more recent letter says that a Cinergy-approved weatherization provider will weatherize their home. The second letter provides a credibility guarantee for the weatherization services making them “Cinergy approved”. This may make it seem like it is a more trustworthy service provider whose work is seen by Cinergy as being trusted.

In summary, while the two letters are similar, there are striking differences in the way the program is offered and in the offerings provided. The key difference in the success of the second, more recent letter may not be associated with the letter at all, but is most likely the program change that provides more money for attending less sessions and the elimination of the use of the term *budget management* from the session description.

Reasons for Non Participation in the Pilot Program

We asked all interviewees why they thought high arrearaged customers who have trouble paying their bills would not want to participate in the Pilot Program. We received a number of responses to this question. The primary responses include:

1. The customer is not sure if the offer is real, unsure about the real purpose of the program, don't believe it,
2. Their arrearage may not be that high anymore, so attending would not result in full credit or any credit.
3. A very small percent may have felt that the gas prices were too high for them to travel to the session (at the time there was a lot of news about rising gasoline prices).

Reasons for Dropping Out after Enrolling

We also asked interviewees to speculate on why customers would enroll in the program and then not take part in the program. We received many of the same answers to the questions on why customers do not participate when offered the program. The reasons provided by interviewees include the following:

1. Some may not be able to plan well, they may forget about a 9am meeting.
2. The large incentive is provided first, then the incentive drops off so that participants get the main dollar benefit after the energy workshop, then get less incentives even though the budget workshop is longer. These customers suggested that Duke may want to restructure the incentive so that participants receive more as they move through the program, not less.
3. They thought that enrollment was required under LIHEAP and lost interest when they learned that participation was optional,
4. They had no child care during the workshop,
5. There was no convenient transportation to the workshops,
6. They could not take off work at the time of the workshops,
7. The timing of the workshops does not fit their personal schedule,

8. They are handicapped, or have trouble getting around,
9. Renters could not obtain landlord approval,
10. They were told that participation would not stop their disconnection, and
11. Reconsidered after seeing what they had to do.

Reasons for Non Participation in Weatherization

We also asked interviewees about the reasons participants might have for not wanting the weatherization service provided with the Pilot Program. We received only a few answers to this question, however one interviewee indicated that all participants in Pilot III that were eligible for weatherization did receive or were receiving this service, indicating that participants who are eligible for weatherization and meet the documentation requirements will receive weatherization services. Reasons for not getting weatherization services that were provided by interviewees include:

1. Landlords do not want anyone seeing the condition of the home because of code or housing violations, unsafe or non-working equipment or structures, etc,
2. Tenants do not want to contact their landlord to request permission because they may be behind on rent.
3. They do not want people to see how they live or the condition of their home,

NKCAC has been working with PWC to get more participants to utilize the weatherization service. Applications were handed out at each of the sessions, and PWC has attended all of the energy education sessions.

Communication and Coordination Issues Between NKCAC and PWC Resolved

In previous year, there was a strained relationship between NKCAC and PWC that influenced these two organization's ability to work cooperatively in a way that collectively benefited the program and Duke Energy's customers. These issues appear to have been resolved (due to staff changes at NKCAC), with both organizations now praising the other in their timeliness and response to communications.

Increase Renter's Ability to Obtain Landlord's Approval

PWC managers indicated in both process evaluations that the program should consider helping renters obtain landlord permission for weatherization services by attempting to contact the landlord when the participant extends contact permission. PWC has made an effort to contact landlords, and when contact is made and the process, the work, and the liability issues are explained, the landlords have been open to the weatherization work being done.

Program Changes Interviewees Would Like to See

We asked managers to report the changes that they would like to see if the program is continued. Only a few recommendations were expressed by the managers, indicating that managers are more satisfied with the program than in the previous pilots. However a few of the interviewed managers provided recommendations for improvements. The recommendations provided by the interviewees include:

1. Reduced class sizes: The classes may have been too large, as there were a few side conversations that may have been distracting.
2. The letter introducing the program to eligible customers may need to be further simplified, as there were some senior customers that did not respond that could really use the assistance that the program provides.
3. Have Al Loving at the Energy Education sessions to explain the weatherization component to the participants, and answer any questions they have about specific audit or installation issues.
4. Collapse the tier system for weatherization. All the customers are low-income and need assistance. Staff suggested that some customers are low consumers because of the condition of their home and they should not be penalized because they manage their consumption better than others.
5. Clearly communicate the timeline for weatherization to the customers, so that they understand that they need to fill out the paperwork and submit it in a prompt manner in order to receive the services and the credit in a timely manner.
6. Expand the geographical area that the program serves. There are 37 municipalities in the area, and some of the customers may be reluctant to travel to the city to attend classes.

Tracking System Adequate for Current Program Structure

Managers indicated that the master tracking spreadsheet established for the program by Duke Energy works well for keeping track of program participants and for the administration of the program. They report that this system is updated frequently. However, in the past a manager noted that if the program was to move into a full-scale program with additional funds and higher participation goals, the program should consider moving to an internet based database design that serves the different stakeholders and can be used to feed information into other databases at the organizational level.

Overall Benefits to the Participants

Interviewed managers were asked to describe what the primary program benefits are to participants. We received a number of responses to this question, including:

- **Quality Information:** Participants gain a great deal of knowledge that will help them manage their bills, control their energy and improve their lives. They learn to save energy, to reduce their bills, to finance and budget their lives.

- **Weatherization:** Participants are offered free energy audits and weatherization services that will help their homes be more energy efficient, and reducing their energy bills and improving comfort levels.
- **Arrearage Assistance:** The program provides a helping hand to give them a bit of a start down the road of improved financial management. It is not everything and will take some time, but it is a start.
- **Reduced Crisis Events:** Hopefully this program will help some people manage on their own and avoid the long-term hardships of crisis events.

What Ratepayers Are Receiving

Managers were also asked what benefits ratepayers receive from programs like the Pilot Program. These responses are presented below:

- **Satisfaction:** Ratepayers can be satisfied that their utility and our society is providing help to their neighbors. The debt load that Duke carries affects all customers because it is a factor in rate increases.

Section II – Pilot IV Participant Interview Results

A total of twenty-six interviews were conducted with participating low-income customers of the Payment Plus Pilot IV Program. All of the interviewees took part in one or more program events, including twenty participants who took part in both training sessions and had weatherization measures installed in their homes. This group of participants are called “full participants,” participating fully in all program components. We also interviewed five participants who completed one or two components, but who did not complete all three. These customers are called partial participants, having taken advantage of part of the program offerings.

This report presents a comparison of the results from the Pilot Program II evaluation completed in 2004 with the Pilot Program IV evaluation results. In reviewing these comparisons the reader should keep in mind that the Pilot II evaluation results are based on 51 interviews. The results from the Pilot Program IV evaluation are based on interviews with 26 participants across 121 participants.

Recalling Participation or Enrollment in the Program

Of the twenty-six interviews conducted with participants, only one person could not recall participating in the program. (This customer was a partial participant, attending the energy training session and receiving weatherization services.) All others contacted recalled enrolling in the program. It is not unusual for a very small percent of low-income program enrollees to not remember participation for a variety of reasons, including the health and mental state of the participant.

Issues with Credits Being Applied to the Participants' Bills

In the Pilot II evaluation, many customers reported that they had issues with getting the credits applied to their bills. In the Pilot II survey, 18 out of 49 customers (37%) reported problems with getting the credits applied to their bill. Only 3 out of 25 (12%) reported problems in the Pilot IV evaluation.

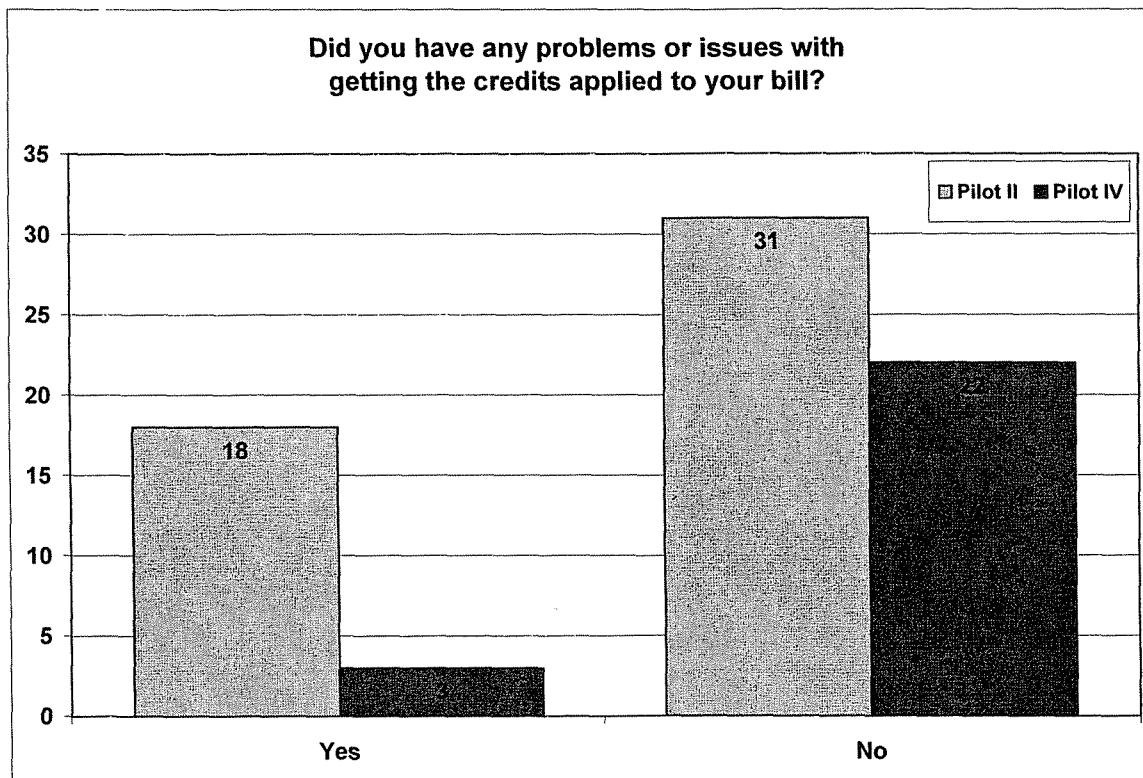


Figure 1 Pilot II and Pilot IV Participants reporting problems with credits being applied

Main Reasons for Participation or Enrollment

Twenty of the twenty-five respondents (80%) indicated that they enrolled in the program for one primary reason: to receive the bill credits. Fourteen (56%) of the participants indicated that they enrolled so that they could save energy in their home by learning conservation measures in the Energy Training Session, or by obtaining the weatherization services.

It is interesting to note that one of the customers reported that they enrolled in the program to attend the Financial Training session or to learn how to better manage their household income (in contrast to none reporting this for Pilot II). These results indicate that this aspect of the program is not viewed as much of a factor in the participation decision process.

Table 4 Main Reasons Given for Enrolling in the Program

	Pilot II (n=51)		Pilot IV (n=25)	
	Frequency	Percent	Frequency	Percent
To receive the bill credits	37	73%	20	80%
To save energy in my home	10	20%	9	36%
To obtain weatherization services	9	18%	6	24%
To find ways to reduce my utility bills	7	14%	5	20%
To avoid disconnect	3	6%	1	4%
For help paying current bill	2	4%	0	0%
To make my home more comfortable	2	4%	0	0%
Other	1	2%	1	4%

^a Percent figures add up to over 100% as multiple answers were allowed.

Why Customers Aren't Getting Weatherization

Only four participants interviewed were asked about why they did not receive weatherization services, as most of the interviewees received weatherization. One interviewee has been too busy with personal matters to fill out the application, another claims to have had communication issues with the program staff¹. Another of the interviewees is a renter whose landlord will not allow the work to be done, and the fourth interviewee stated that the home he occupied was already energy efficient and that he did not need the service.

Satisfaction with the Training Sessions

During the interviews, participants were asked to rate their satisfaction with specific aspects of the program's training sessions. Participants were asked to score their satisfaction using a 10-point scale where a 1 means very unsatisfied and a 10 means very satisfied. We asked participants to rate their satisfaction with the convenience of attending, comprehensiveness, materials, credits provided, the instructor's knowledge and the instructor's presentation skills. Selected results for both evaluated Pilot groups are presented in the following figures. We asked these questions for each of the two training sessions. A score of less than 7 (on a 10 point scale) typically means that there is at least some level of dissatisfaction with a program component. When participants provide a score of 7 or less in a response, they were asked how that aspect of the program could be improved.

¹ Duke Energy, NKCAC, and PWC have all indicated that the program staff and administration made many attempts at contacting customers to discuss issues and resolve complaints.

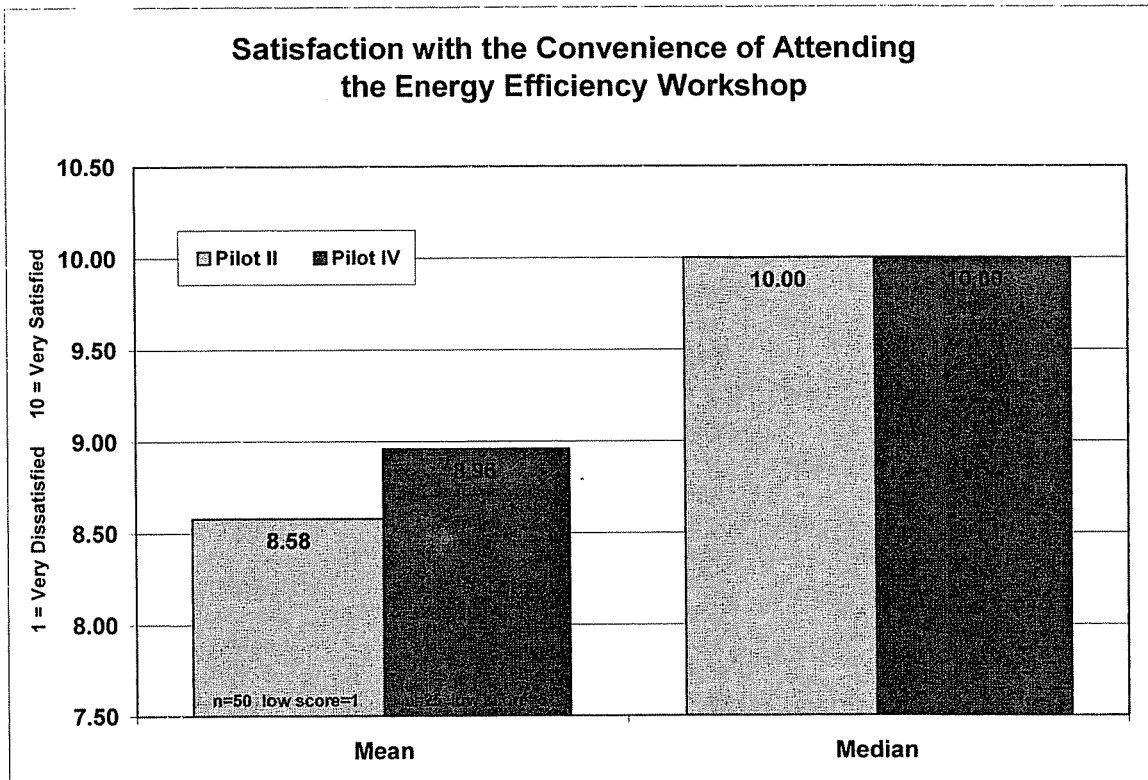


Figure 2 Satisfaction with the Convenience of Attending the Energy Efficiency Workshop

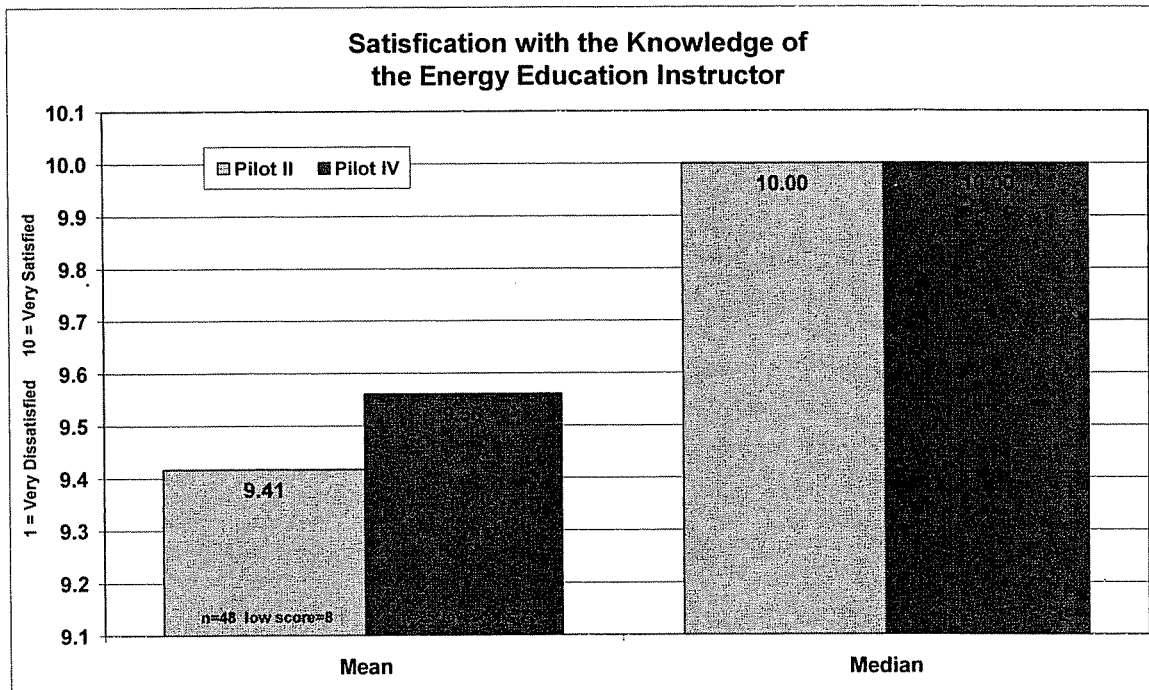


Figure 3 Satisfaction with the Knowledge of the Energy Education Instructor

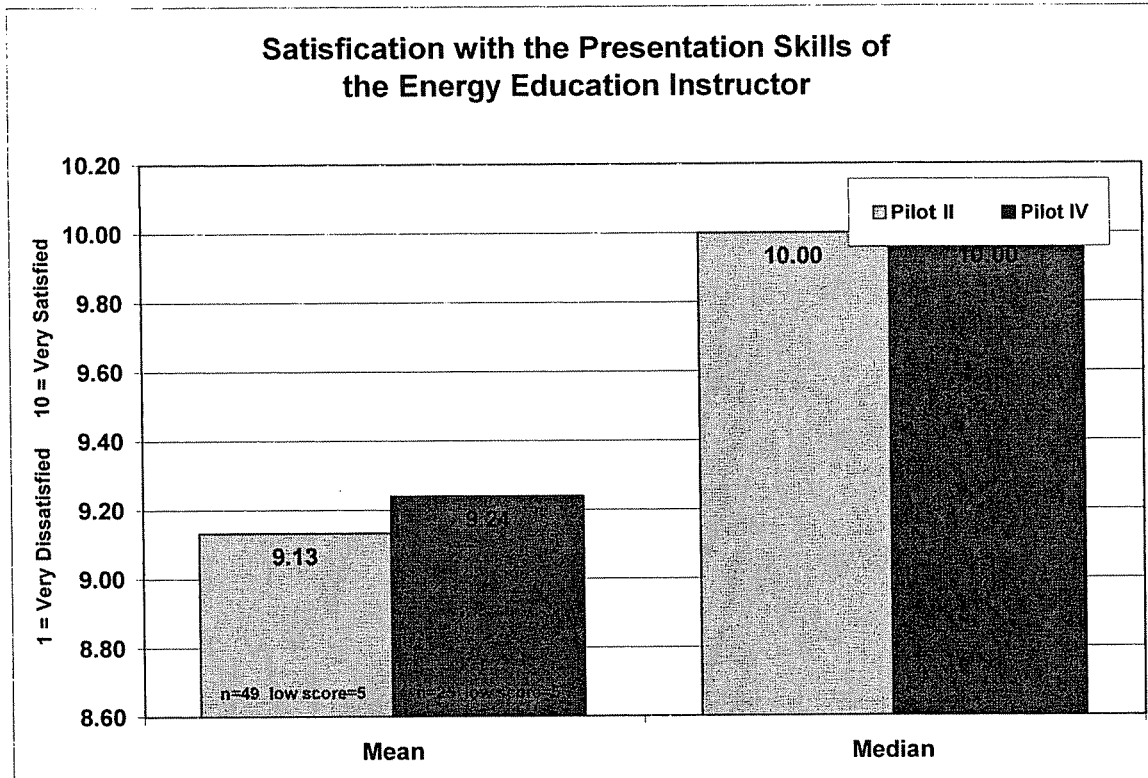


Figure 4 Satisfaction with the Presentation Skills of the Energy Education Instructor

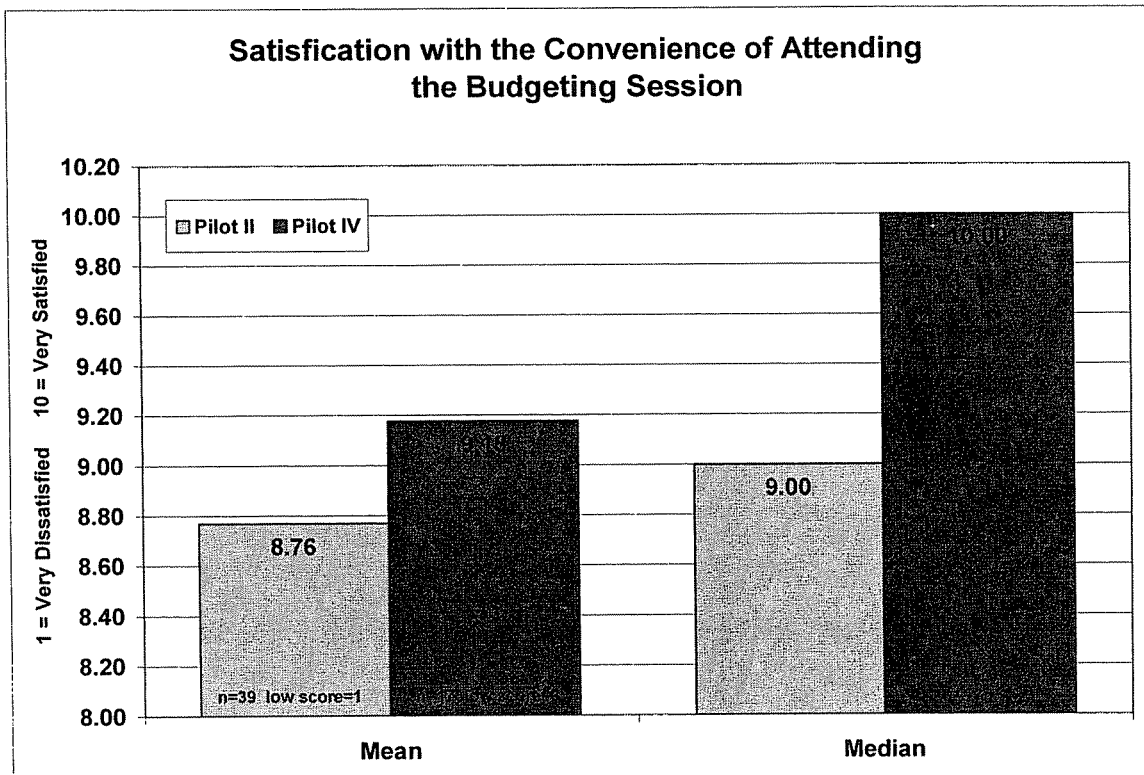


Figure 5 Satisfaction with the Convenience of Attending the Budgeting Session

Pilot IV participants report their highest levels of satisfaction with the instructor knowledge in the energy session. Satisfaction with the comprehensiveness of the subjects covered and the instructor’s presentation also score high with means over 9.0 for the energy session. The area of lowest satisfaction with the energy session was the materials handed out at this session. The explanations for this are: 1) At one of the energy sessions, there were not enough packets to distribute, and 2) At another session, two different packets were handed out, which led to some confusion, having to always check pages. All aspects of the budget training session scored a mean of over 9. Overall, convenience of attending the sessions has improved, and so has the rating of the instructor’s presentation skills. Table 5 presents the satisfaction scores for the program participants of both Pilot II and Pilot IV.

Table 5 Mean Satisfaction Scores for Training Sessions

1 = very dissatisfied, 10 = very satisfied. Customer Satisfaction with:	Pilot II		Pilot IV	
	Energy Session (n=50)	Financial Session (n=39)	Energy Session (n=25)	Financial Session (n=17)
Bill Credits Provided	9.47	9.77	Not asked	
Instructor Knowledge	9.42	9.47	9.56	9.35
Comprehensiveness of Subjects	9.27	9.31	9.20	9.29
Materials Handed Out	9.16	9.49	8.36	9.41
Instructor Presentation Skills	9.13	9.23	9.24	9.35
Convenience of Attending	8.58	8.77	8.96	9.18

The comments of Pilot IV participants scoring satisfaction below a 7 are summarized below.

There were only three customers that had to rearrange their schedules to attend the training sessions. A few customers complained of the materials: one said the materials were too complicated and hard to follow, while two others thought that there was room for more information.

We also asked the participants if the sessions were too long, too short, or about right. Table 6 indicates that the majority of customers thought that the sessions were about the right length of time.

Table 6 Customer Opinions on the Length of the Training Sessions

Pilot II Score	Too Long		About Right		Too Short	
	Frequency	Percent	Frequency	Percent	Frequency	Percent
Energy Session (n=49)	5	8%	43	86%	1	2%
Financial Session (n=39)	4	10%	33	85%	2	5%
Pilot IV Score						
Energy Session	1	4%	23	92%	1	4%

(n=25)						
Financial Session (n=17)	1	7%	14	82%	2	14%

Satisfaction with Weatherization Services

Program participants who had received their weatherization service before the evaluation interview were very satisfied with the quality of the measures installed and the information provided in past evaluations. Satisfaction scores for Pilot IV have increased in every measurement of satisfaction except for the scheduling of weatherization, which dropped slightly, but still remains high, see Table 7 and the figures below.

Table 7 Customer Satisfaction with Weatherization Services

Satisfaction with:	Pilot I (n=10)	Pilot II (n=22)	Pilot IV (n=20)
Information on the Installed Measures	10	9.30	9.50
Quality of the Measures Installed	10	9.25	9.64
Scheduling the Energy Audit	9.6	8.82	8.94
Weatherization Services Overall	8.7	8.71	9.00
Scheduling Weatherization	9.6	8.43	7.65

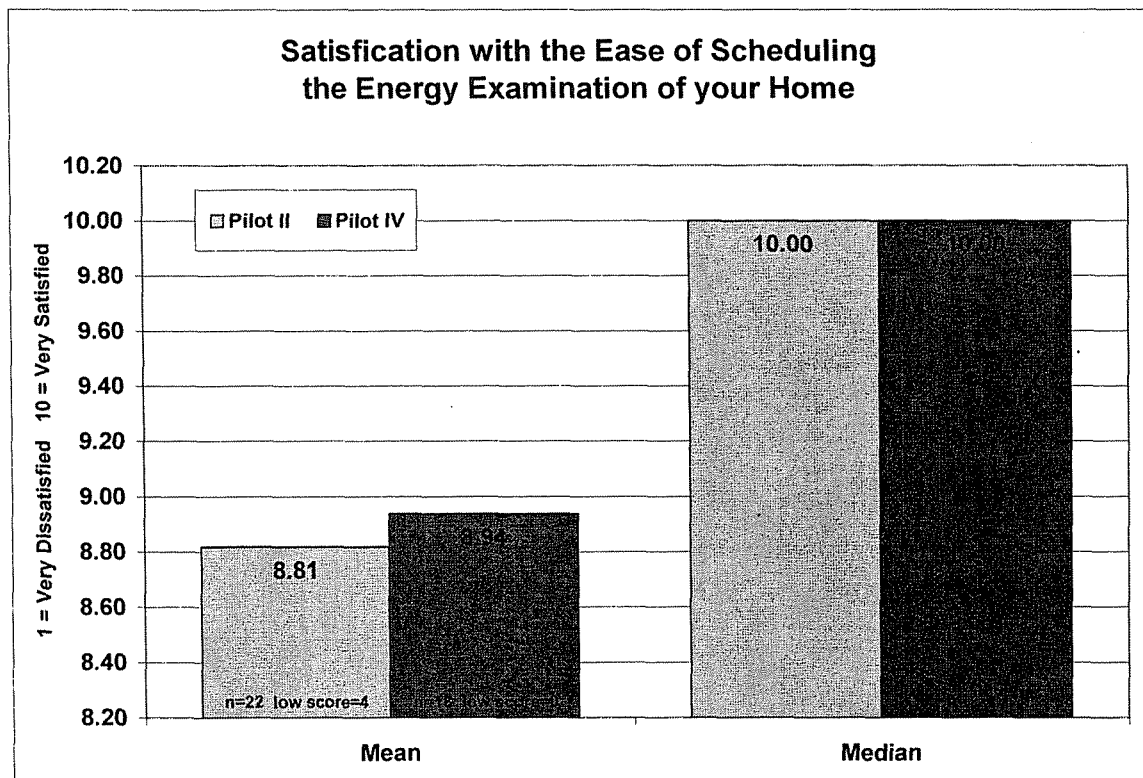


Figure 6 Satisfaction with the Ease of Scheduling the Energy Examination of your Home

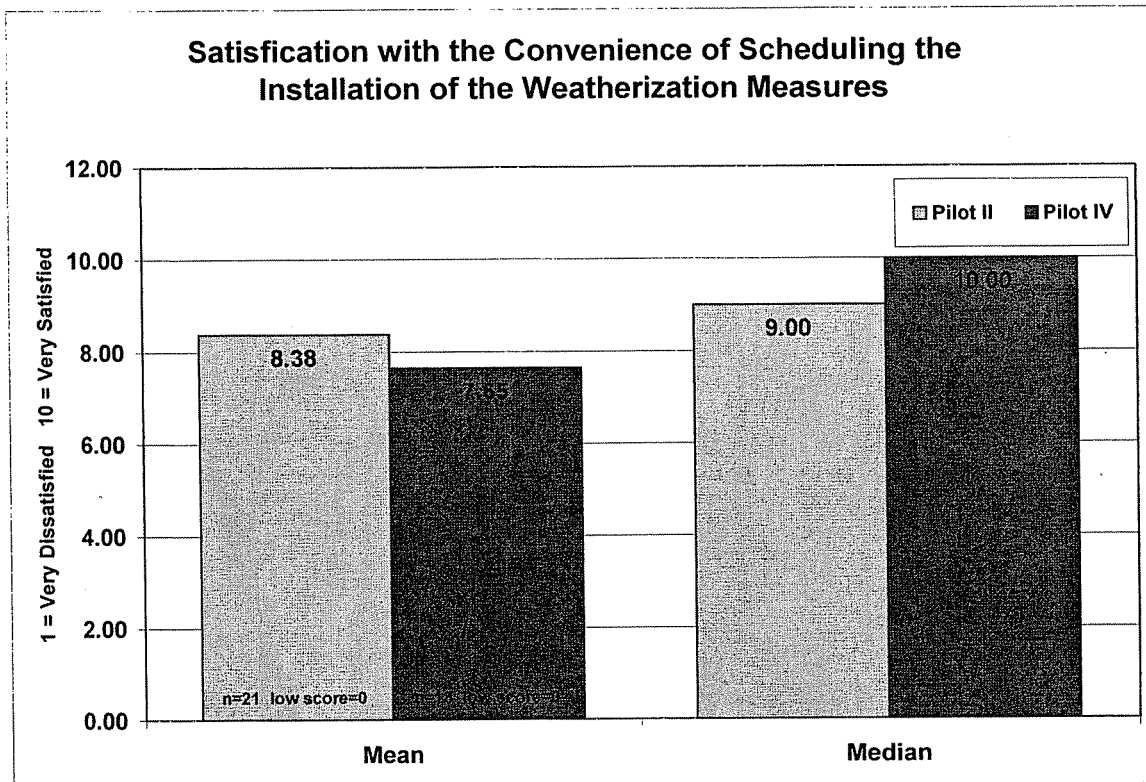


Figure 7 Satisfaction with the Convenience of Scheduling the Installation of the Weatherization Measures

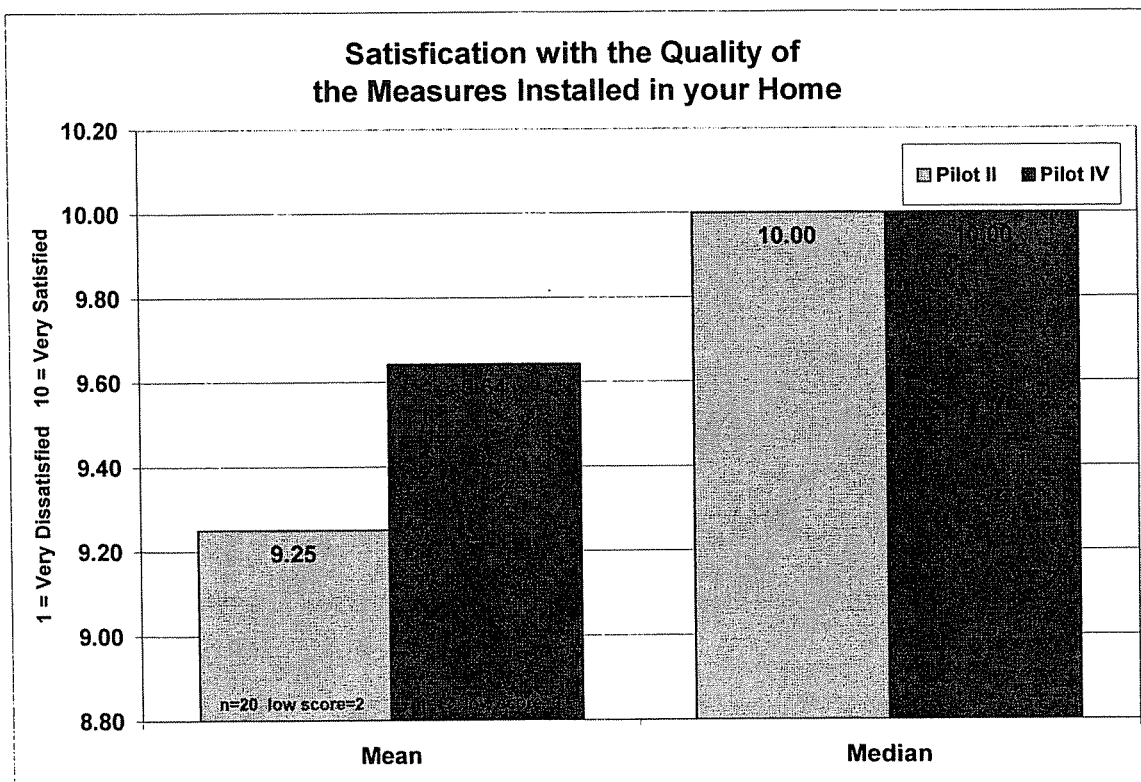


Figure 8 Satisfaction with the Quality of the Measures Installed in your Home

The drop in scores for Pilot IV is primarily due to a couple of customers providing lower scores and as a result, should not be interpreted as a systematic drop in customer satisfaction. With only 20 respondents, a couple of low-scoring participants can significantly affect the average score. The median score across all weatherization scores for all Pilots (I, II, and IV) is 10 on the 10 point scale used, with only one exception: the median satisfaction score with the scheduling of weatherization services received a median score of 9 in Pilot Program II.

When customers gave a score of 7 or lower, we asked them for suggestions to improve the service. The few comments received regarding the scheduling of the energy audit all mentioned issues such as the auditors not showing up when they said they were going to, or the process simply taking too long. Only one customer felt that she didn't get enough information from the weatherization installers who seemed to be in a hurry. One customer would like to receive additional weatherization services in addition to the refrigerator provided.

Views of the Overall Program

We also asked the customers how satisfied they were with specific aspects of the program. The results indicate very high satisfaction that has remained steady from Pilot II to Pilot IV.

Table 8 presents the satisfaction scores for the aspects of the program that were measured.

Table 8 Mean Satisfaction Scores of Program

Satisfaction with:	Pilot II Mean Score	Pilot IV Mean Score
Overall Program	9.58	9.39
Ease of Filling out Application Forms	9.09	9.52
Communication during the Application Process	8.91	8.83
Communication during Sessions and Weatherization	8.81	

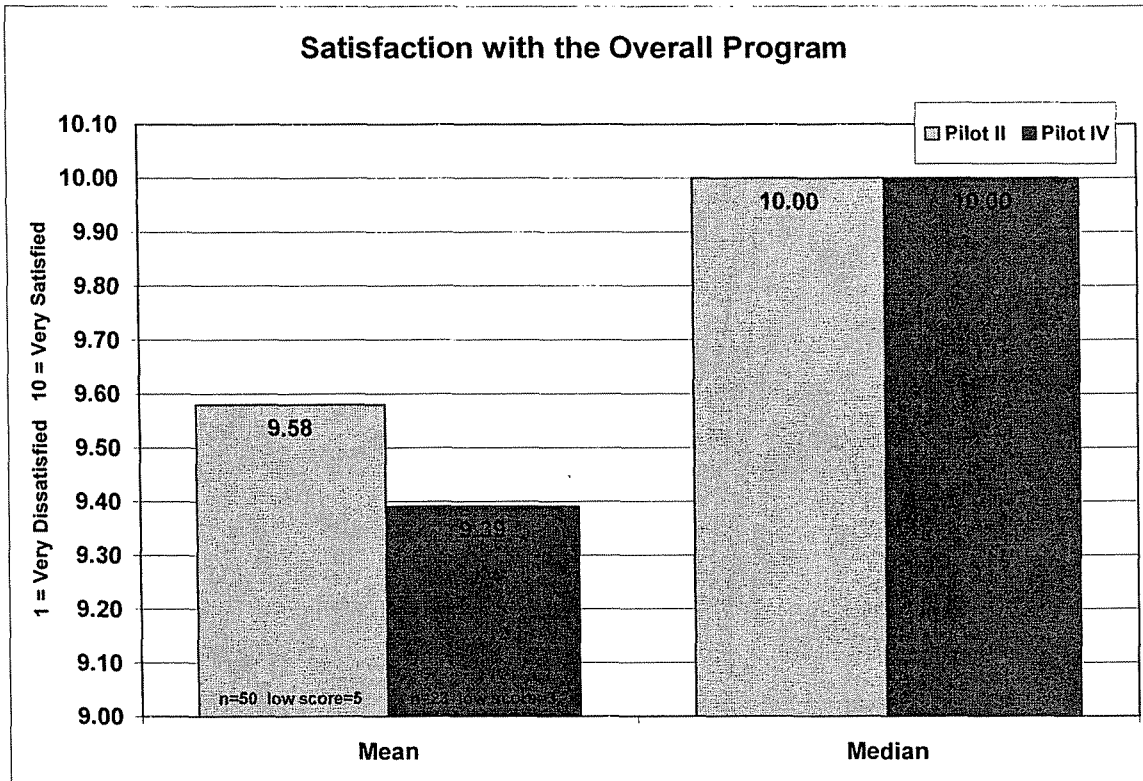


Figure 9 Satisfaction with the Overall Program

Participant’s Recommendations for Improvements

Participants were asked for suggestions for changes and what additional services the program could offer to improve the program. One man thought that special consideration should be given to those that have legitimate reasons for missing a training session, such as a hospital stay in which documentation can be provided. Other customers would like to have the credits applied to their bill regardless of their arrearage level (they would like to see their balance move into a credit situation if they participate according to the program requirements).

Actions Take as a Result of Participation

One of the goals of the interview is to determine if participants have used the skills they learned during the two workshops. To accomplish this goal we asked participants “*What actions, if any, have you taken in your home to save energy and reduce your utility bills as a result of what you learned in the this program?*” and “*What actions, if any, have you taken in your home to better manage your household budget as a result of what you learned in the this program?*” The responses to these questions demonstrate that participants are using the information and skills gained during the workshops to take actions that save energy, and that they have made adjustments to the way they handle their money. The actions that the participants report taking following the workshops are presented below:

Actions taken as a result of participation in the Energy Training Session:

1. Keeping the freezer full.
2. Replaced the refrigerator.
3. CFLs (four participants)
4. Sealed drafts.
5. Turning the lights off. (four participants)
6. Using cold water for clothes. (two participants)
7. Stripping over doors.
8. Keeping windows closed.
9. Using ceiling fans more often.
10. Sealed the windows. (three participants)
11. Using less hot water, taking cooler showers.
12. Weatherized the house - but other stuff was done already - he is pretty EE already.

Actions taken as a result of participation in the Financial Training Session:

1. Trying to get on even billing to get caught up.
2. More careful about where money is spent.
3. Quit smoking.
4. Thinking about using budget billing.
5. Cut down on some excess stuff we don't need.
6. Paying more attention - working on it, but money's tight.
7. Cooking two meals at once, using the microwave to reheat.

Overall, it seems that the participants were able to incorporate a significant amount of what they learned into their lives and the lives of their families.

Section III: Energy Use Analysis and Findings

One of the goals of the Payment Plus Program is for the participants to learn ways to be more energy efficient. In this analysis, we examined and compared energy usage of Pilot Program I, II and III participants, and two comparison groups of non-participants (one for Pilots I and II, another for Pilot III), over the years before and after the program.

Energy Use Evaluation - Pilots I, II and III

Sample Size

Many of the customers in both the participant and the comparison group did not have a history of account information prior to program enrollment, or they had moved shortly after the program, making their consumption data unavailable or not relevant for the analysis. As a result, many accounts from both groups had to be eliminated from this study. Table 9 below indicates the number of customers that were analyzed in each of the groups studied.

Table 9 - Sample Sizes for Energy Analysis

Group	kWh		Therm	
	Participants	Comparison ^a	Participants	Comparison ^a
Pilot I Weatherized	3	20	5	49
Pilot I Not Weatherized			2	
Pilot II Weatherized	7	20	11	49
Pilot II Not Weatherized			11	
Pilot III Weatherized	6	36	13	95
Pilot III Not Weatherized			4	
All Pilots Weatherized	16	56	29	144
All Pilots Not Weatherized			17	

^a All customers known to have received weatherization services were removed from the comparison groups.

The comparison groups consists of about 300 low-income customers with payment and arrearage histories that are similar to the participants. There are two comparison groups used in this study, one to compare with Pilots I and II, which consists of the same customers used in the comparison group of the previous evaluation of Pilots I and II, and a third comparison group which was created for the analysis of Pilot III. These comparison groups are combined when all Pilot participants were combined in order to determine a full program effect on energy consumption.

Some of the groups are rather small, specifically those in the Pilot I study because the enrollment process did not consider available account history as instructed by Duke managers, and because four years have passed and several participants have moved. The

therm savings analysis of Pilot III non-weatherized customers also has a low sample size (6 customers). Due to these low numbers, the findings can only be viewed as anecdotal or representative of these groups as a whole, but not statistically accurate for these three groups.

Statistical Precision

All of the analytical runs done in PRISM™ provide a R^2 and CV(NAC) value that indicates the strength of the results provided. These values are provided in the table below. The higher the R^2 value (maximum value is 1.000), and the lower the CV value, the better the data. For more information on PRISM™ and these statistics, please see the section on methodology.

Table 10 R² and CV (NAC) Associated with PRISM™ Energy Usage Analysis

Group	Statistic	Comparison	Participants
Pilot I kWh Analysis			
	R ² – PRE	.955 (+/- .015)	.961 (+/- .073)
	R ² – POST	.937 (+/- .025)	.982 (+/- .074)
	CV (NAC) % – PRE	3.3 (+/- 0.6)	4.5 (+/- 1.7)
	CV (NAC) % – POST	3.8 (+/- 0.7)	3.9 (+/- 0.9)
Pilot I Therm Analysis – Weatherized			
	R ² – PRE	.997 (+/- .001)	.999 (+/- .003)
	R ² – POST	.995 (+/- .003)	.980 (+/- .015)
	CV (NAC) % – PRE	2.4 (+/- 0.3)	1.2 (+/- 1.2)
	CV (NAC) % – POST	3.7 (+/- 0.3)	3.2 (+/- 0.2)
Pilot I Therm Analysis – Not Weatherized			
	R ² – PRE	.997 (+/- .001)	.997 (+/- .002)
	R ² – POST	.995 (+/- .003)	.998 (+/- .002)
	CV (NAC) % – PRE	2.4 (+/- 0.3)	2.5 (+/- 0.1)
	CV (NAC) % – POST	3.7 (+/- 0.3)	1.7 (+/- 0.6)
Pilot II kWh Analysis			
	R ² – PRE	.955 (+/- .015)	.940 (+/- .033)
	R ² – POST	.937 (+/- .025)	.855 (+/- .063)
	CV (NAC) % – PRE	3.3 (+/- 0.6)	3.9 (+/- 0.8)
	CV (NAC) % – POST	3.8 (+/- 0.7)	3.1 (+/- 0.6)
Pilot II Therm Analysis – Weatherized			
	R ² – PRE	.997 (+/- .001)	.990 (+/- .011)
	R ² – POST	.995 (+/- .003)	.966 (+/- .014)
	CV (NAC) % – PRE	2.4 (+/- 0.4)	2.6 (+/- 0.9)
	CV (NAC) % – POST	3.7 (+/- 0.4)	3.1 (+/- 0.7)
Pilot II Therm Analysis – Not Weatherized			
	R ² – PRE	.997 (+/- .001)	.993 (+/- .018)
	R ² – POST	.995 (+/- .003)	.983 (+/- .020)
	CV (NAC) % – PRE	2.4 (+/- 0.3)	3.0 (+/- 0.4)
	CV (NAC) % – POST	3.7 (+/- 0.3)	3.5 (+/- 0.6)
Pilot III kWh Analysis			
	R ² – PRE	.945 (+/- .013)	.921 (+/- .029)
	R ² – POST	.917 (+/- .021)	.868 (+/- .049)
	CV (NAC) % – PRE	3.8 (+/- 0.4)	5.3 (+/- 0.5)
	CV (NAC) % – POST	3.5 (+/- 0.3)	3.7 (+/- 0.7)
Pilot III Therm Analysis – Weatherized			
	R ² – PRE	.989 (+/- .002)	.986 (+/- .009)
	R ² – POST	.980 (+/- .003)	.988 (+/- .012)
	CV (NAC) % – PRE	3.0 (+/- 0.2)	2.6 (+/- 1.4)
	CV (NAC) % – POST	3.7 (+/- 0.3)	3.2 (+/- 1.4)
Pilot III Therm Analysis – Not Weatherized			
	R ² – PRE	.990 (+/- .002)	.986 (+/- .004)
	R ² – POST	.989 (+/- .003)	.988 (+/- .006)
	CV (NAC) % – PRE	3.0 (+/- 0.2)	3.1 (+/- 0.5)
	CV (NAC) % – POST	3.7 (+/- 0.3)	3.0 (+/- 0.5)

Changes in Electricity Consumption Between Participants and Comparison Group

None of the Pilot participants were successful at reducing their electrical consumption over the long-term. Figure 10 shows the three groups analyzed separately and then combined in PRISM,TM and their annual electrical savings.

Figure 10 below shows that in each Pilot, annual comparison-adjusted kilowatt-hour consumption increases over the longer-term period. Pilot I participants increased their consumption by 339 kWh per year, while the comparison group decreased their consumption by 290 kWh per year, resulting in an adjusted increase for the Pilot I participants of 629 kWh per year. Pilot II I participants increased their consumption by 296 kWh per year, but with the application of the comparison group, their consumption increases to 585 kWh per year. Pilot III also increased their consumption. Their annual increase is estimated to be 530 kWh, and the comparison group increased their consumption as well, but not as much (319 kWh per year) – giving Pilot III participants a comparison-adjusted increase of 211 kWh per year. While in the short term there may be electric energy savings (see previous studies), but in the long term the electric savings appear to erode and approach their pre-participation levels.

This relative condition also holds when the different groups are combined and assessed as a single group, although the levels change as a function of the combining effect. When these three Pilot groups are combined (as a single unit) and the two comparison groups are combined, the increase in consumption is not as drastic. Combined, the Pilot participants increase their consumption by only 392 kWh per year. When the two comparison groups are combined, their consumption increases by 102 kWh per year. The end result of all the Pilot participants is a mean increase in annual consumption of 290 kWh per year, or about 24 kWh per month.

This does not mean that all participants increase their consumption, as we will see when these results are compared to the median savings (below). Also, the fact that four years have passed since the Pilot I participants attended the training session on how to decrease energy consumption needs to be considered, as well as the fact that this estimate is based on the analysis of only 3 participants that had reliable data. Many of the participants may have had changes in their kWh consumption due to factors beyond poor energy consumption behaviors. Changes such as more people living in the home, in-home illness, more medical equipment, larger televisions, or computer equipment all can have a profound effect on energy use. While these customers may still be turning off the lights when not in use and using CFLs, other factors may be hiding the savings that we would expect to see.

These increases in consumption are a new phenomenon, two years ago when Pilot I and II participants were analyzed, they were still at a decreased level of consumption when compared to their consumption before the program. This evaluation of kWh consumption tells a completely different story: the decreased consumption of kWh may not be for the long-term.

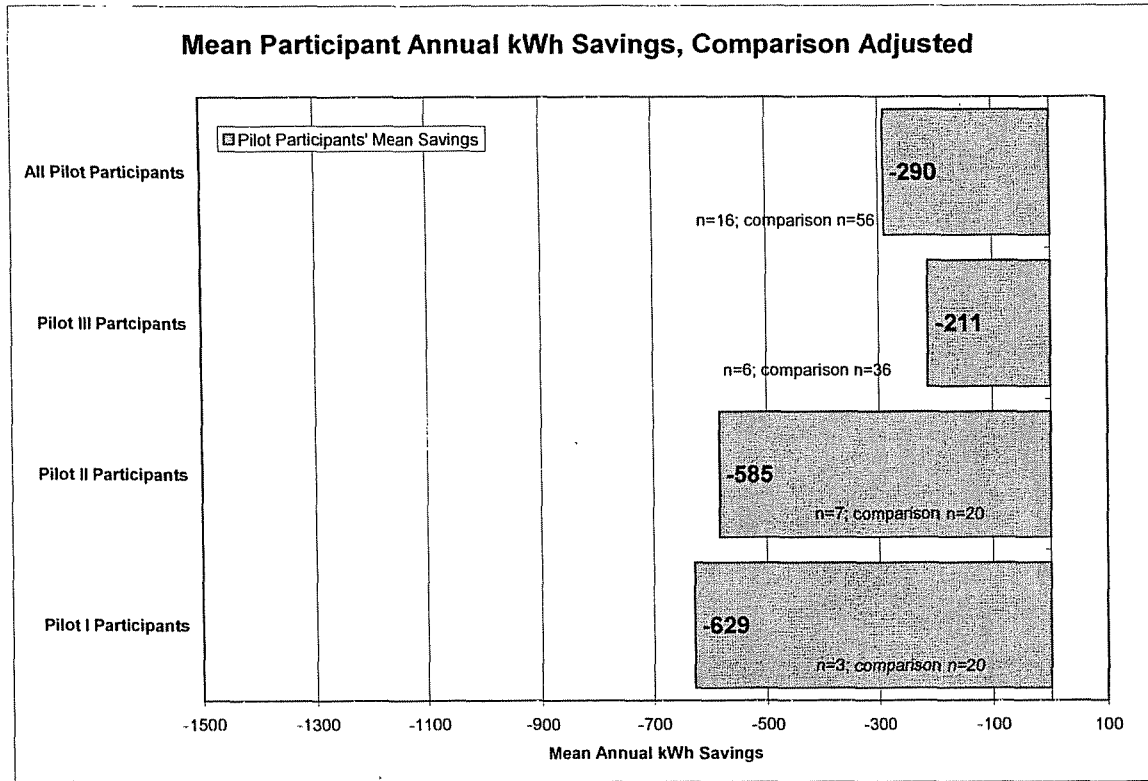


Figure 10 Mean Annual kWh Savings of Pilot Participants, Adjusted for Comparison Group Changes

PRISM™ also calculates the net percent change in electrical consumption, which is presented in Figure 11. The comparison group used for Pilots I and II decreased their electrical consumption by 1.5% (two years ago they increased their consumption by 8.1%). Pilot I participants comparison-adjusted increase of 629 kWhs per year is equal to 8.5%. Pilot II participants increased their consumption since participating in the program, by 5.7%. Pilot III participants, after one year, are saving only 0.3%.

Overall, when the Pilot participants and the comparison groups are combined to analyzed all customer data, the Pilot participants' kWh comparison-adjusted consumption decreases by 3% - or, essentially, it doesn't change in the post-participation period when compared to the pre-participation period.

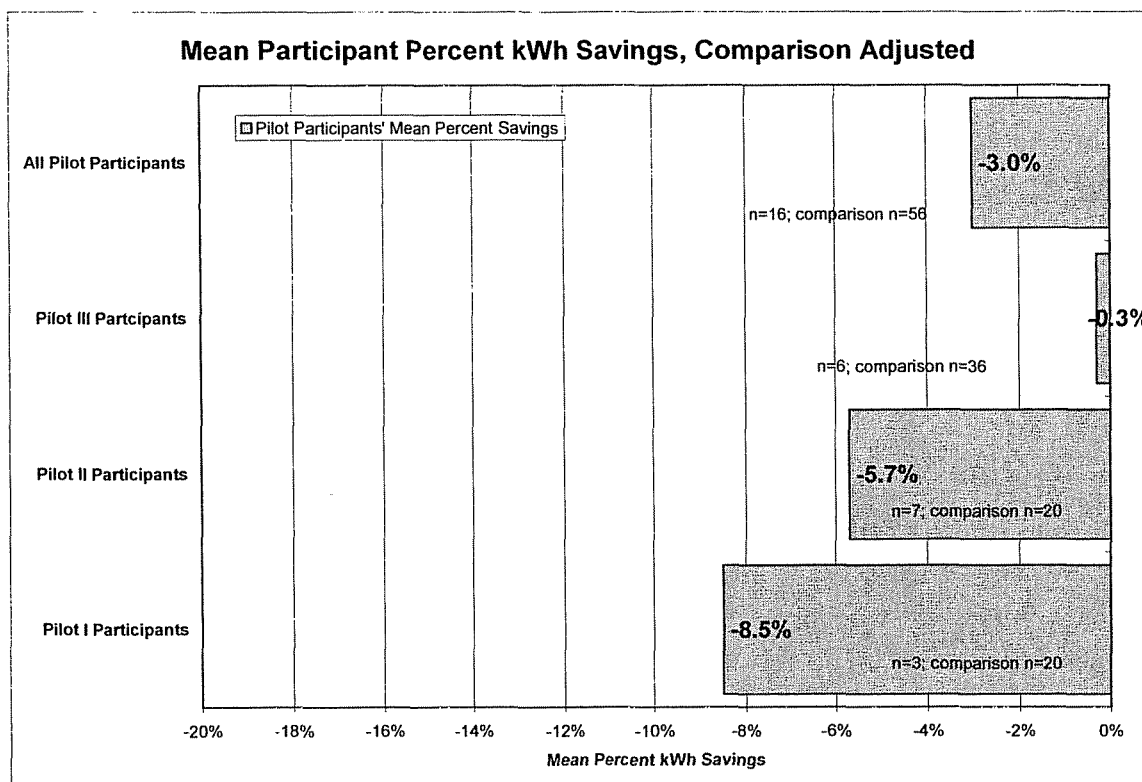


Figure 11 Mean Percent kWh Savings of Pilot Participants, Adjusted for Comparison Group Changes

Figure 10 and Figure 11 examined the mean net program savings. However, an examination of the median savings is also informative. The median kWh savings provides an alternate perspective on the energy savings associated with participation in the Pilot programs. Pilot I participants had a net median increase of 289 kWh/year (see Figure 12) compared to a mean increase of 629 kWh/year (see Figure 10), indicating that there is a number of participants who experienced very high increases in electrical consumption that acted to push the mean savings downward for the group as a whole.

Pilot II participants have a similar, but stronger, result, with a median savings of 416 kWh/year compared to a mean increase of 585 kWh/year, indicating that over half of them decreased their consumption by about 400 kWh/year or more, while some of them greatly increased their usage, bringing the mean to an average increase across the entire group. This indicates that the program was effective at reducing consumption for about half of the participants, there are some participants that increased their consumption so much that it drives the savings for the group as a whole down by a considerable amount. Pilot III participants have a mean increase of 211 kWh per year, while the median is an increase of 112 kWh per year, indicating that over half of the Pilot III participants have in fact increased their energy consumption more than customers decreased their consumption.

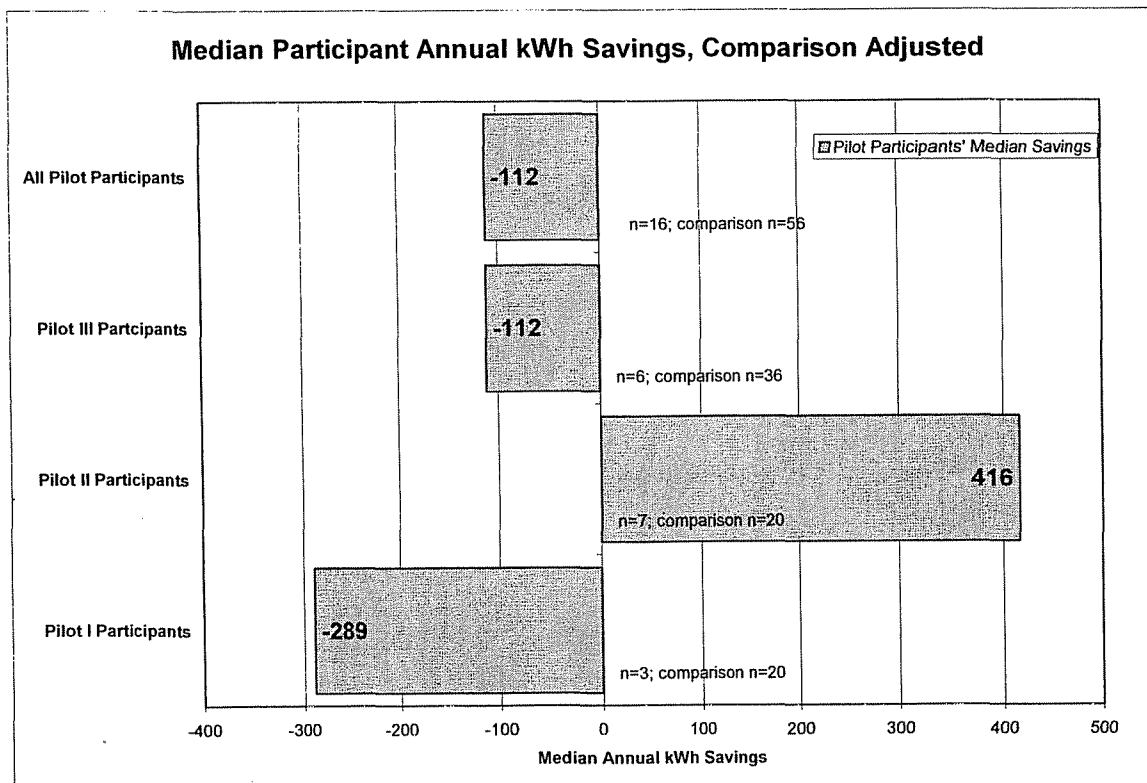


Figure 12 Median Annual kWh Savings of Pilot Participants, Adjusted for Comparison Group Changes

Figure 13 below shows the median percent changes in consumption for the three pilot groups. Overall, half of the Pilot participants have increased their kWh consumption by at least 2.1%.

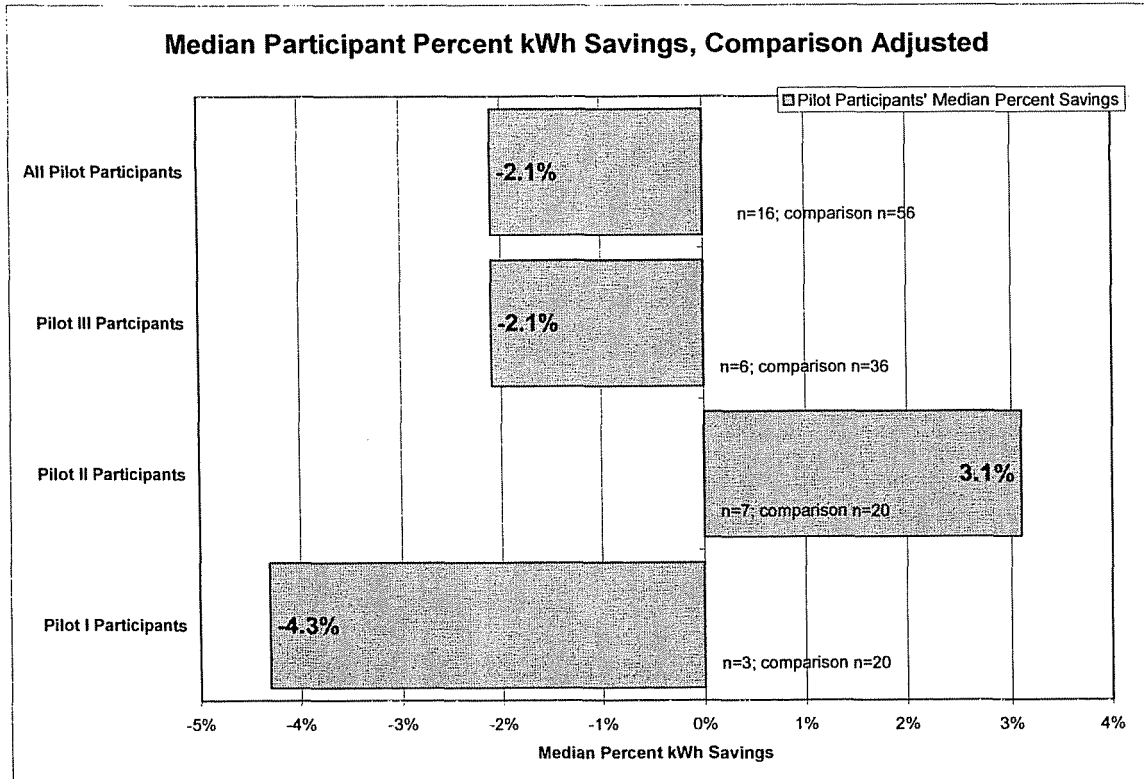


Figure 13 Median Percent kWh Savings of Pilot Participants, Adjusted for Comparison Group Changes

Changes in Natural Gas Consumption Between Participants and Comparison Group

Pilot participants have positive results with the amount of natural gas they consumed after participating in the program. The comparison groups used in this analysis are the same groups that were used in the electrical analysis, and they also have realized reductions in their therm consumption. Pilot I and II comparison reduced their consumption by 9 therms per year, and the Pilot III comparison group reduced their consumption by 13 therm per year, so the Pilot participants’ savings are decreased slightly due to this reduction by the comparison group.

Figure 14 shows that weatherized participants generally have an advantage when it comes to reducing natural gas consumption over all Pilot groups. Weatherized Pilot I participants reduced their consumption by 169 therms per year, while non-weatherized Pilot I participants increased their consumption by 75 therms per year. This figure shows that weatherization is the key component of this program in reducing therm consumption. All participants that were weatherized have a mean decrease in consumption. Over all Pilots, this difference is equivalent to about 143 therms per participant per year in savings.

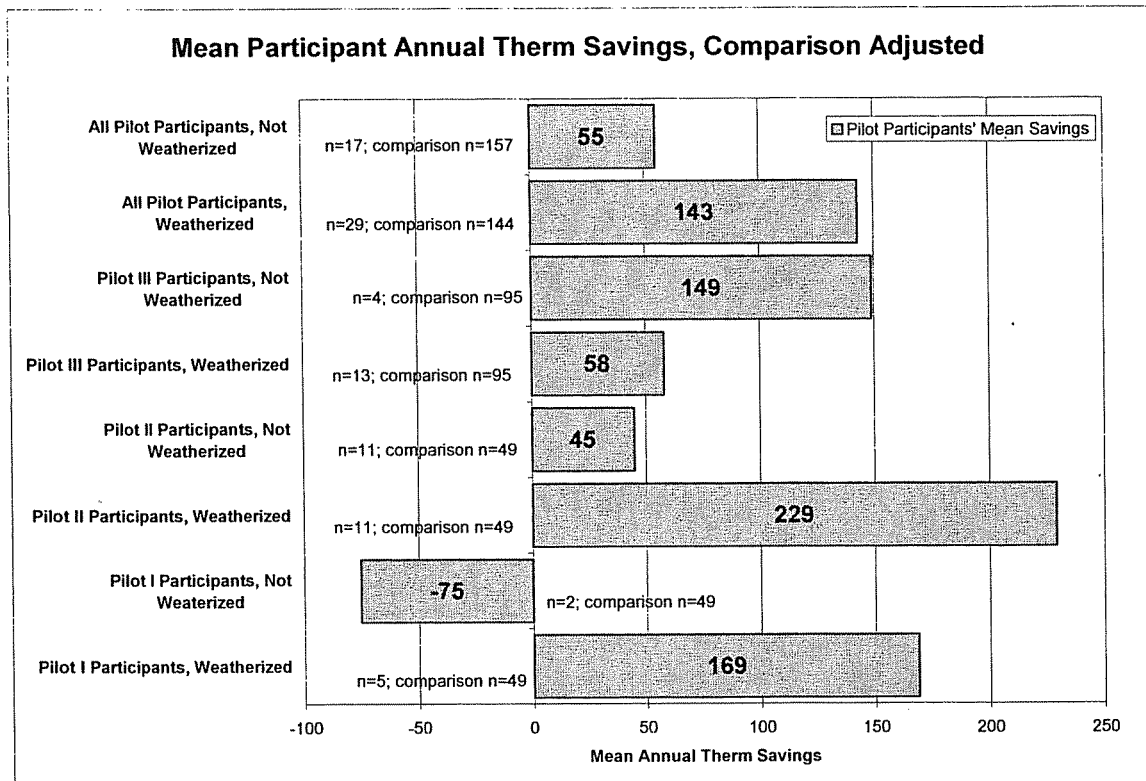


Figure 14 Mean Annual Therm Savings for Pilot Participants, Adjusted for Comparison Group Changes

The average percent change in therm consumption shows a similar result, as seen in Figure 15 below. The Pilot II and III participants who were not weatherized were able to decrease their consumption somewhat, but non-weatherized participants in Pilot I increased their consumption by 5.7%. Weatherization allowed the participants to decrease their consumption by 10.7% over all Pilots.

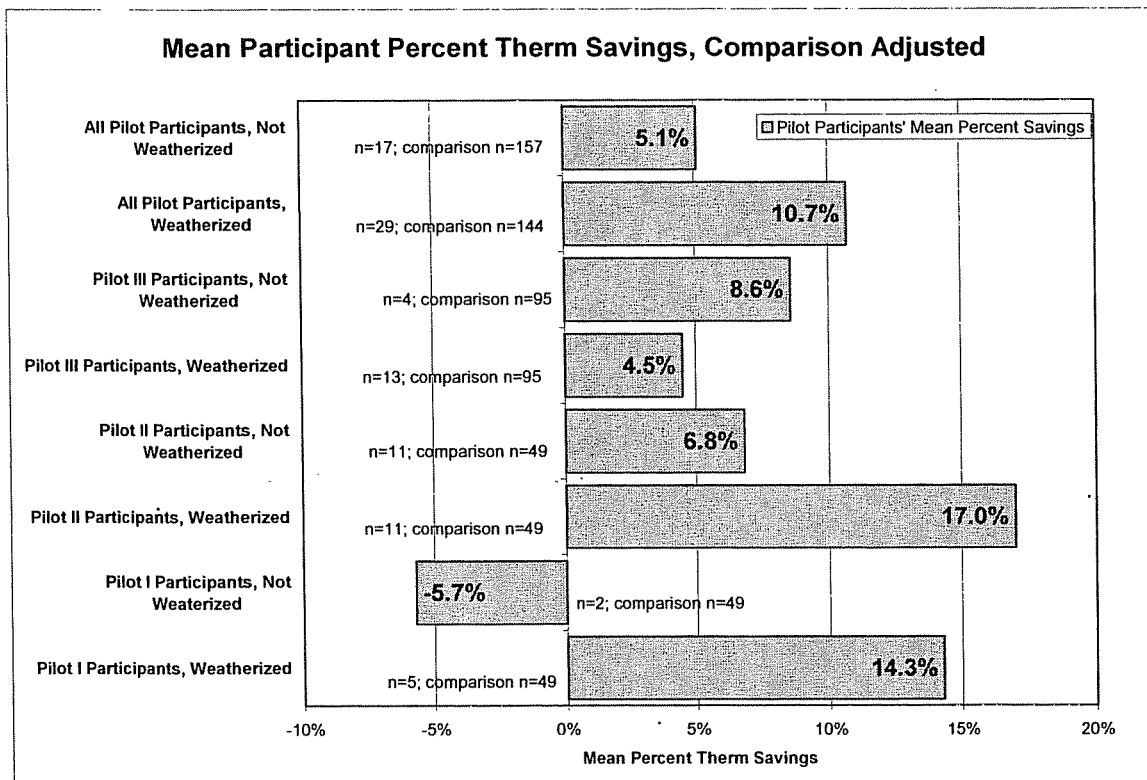


Figure 15 Mean Percent Therm Savings for Pilot Participants, Adjusted for Comparison Group Changes

Median savings again aid the understanding of the results. In Figure 16, the median savings are positive for all groups except Pilot I non-weatherized, indicating that for all but this group, over half of the participants decreased their consumption, regardless of weatherization. This finding, in combination with the mean results presented above, indicate that the Payment Plus Program is helping participants decrease their therm consumption. However, savings are substantially increased when weatherization services are provided.

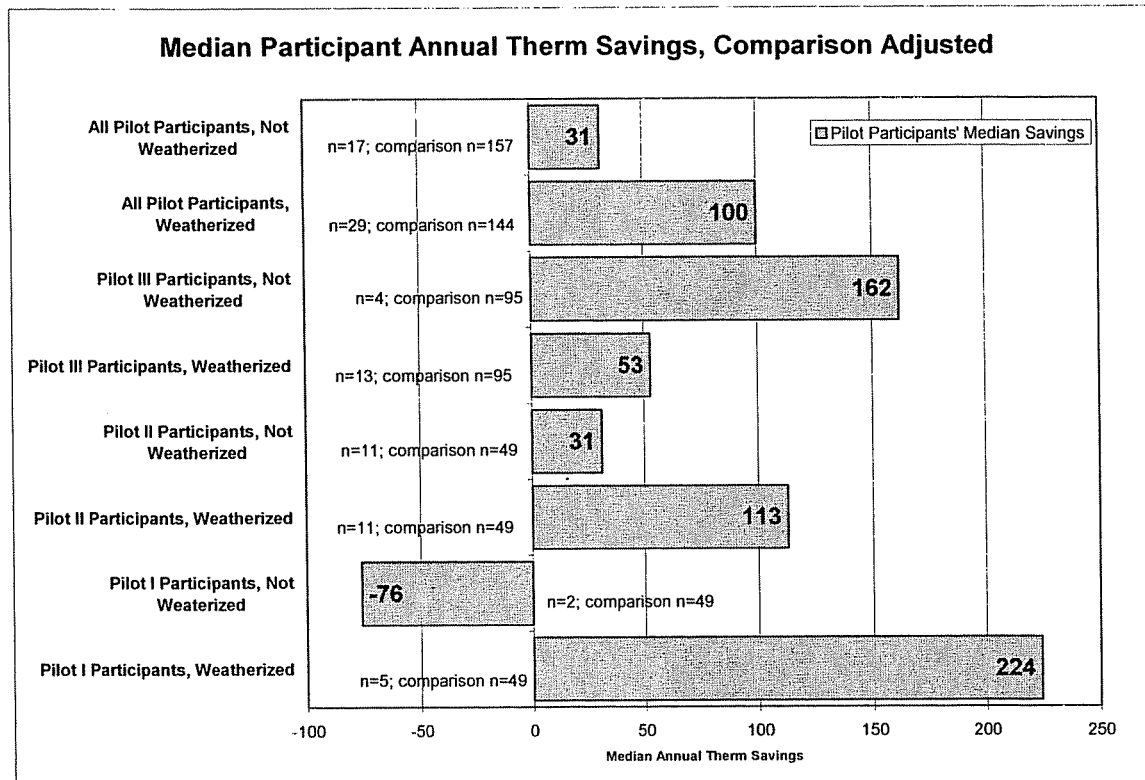


Figure 16 Median Annual Therm Savings for Pilot Participants, Adjusted for Comparison Group Changes

Figure 17 shows the median percent savings, which also indicates that the Pilot I participants that were not weatherized have the greatest amount of increases, with a median 7.8% increase in therm consumption. However, all other participants have median savings. Overall, the Pilot Program is most effective when the weatherization component is included. Over half of the weatherized participants have comparison-adjusted annual savings of 100 therms, or a decrease in therm consumption of 10.4%.

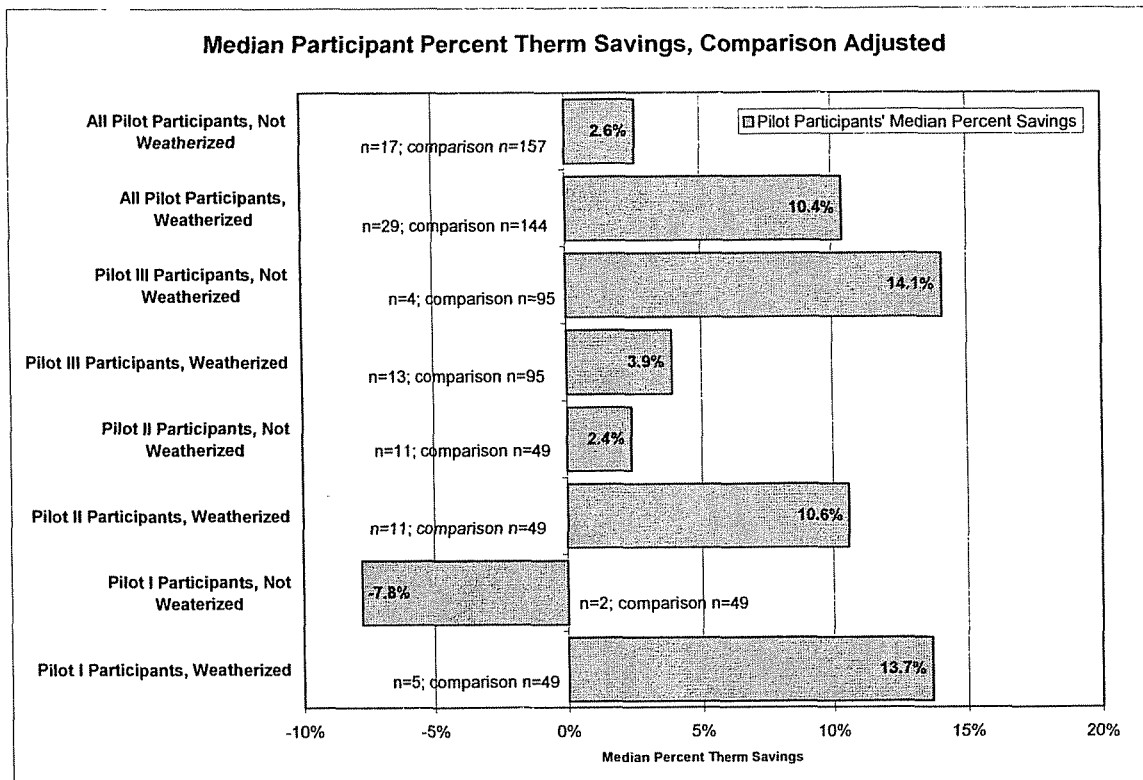


Figure 17 Median Percent Therm Savings for Pilot Participants, Adjusted for Comparison Group Changes

Energy Savings of Pilot I, II, and III Participants Combined

With the weather-normalized results provided by PRISM™ it is possible to combine the Pilot participants together as a single group and assess the energy impacts across both groups. This assessment provides the most reliable indication of program energy impacts because it treats participants from all three Pilots as a single group. While this was done above, here we will look only at overall Pilot Program effects on energy consumption, and compare mean and median results directly to better show the changes in consumption after participating in the program.

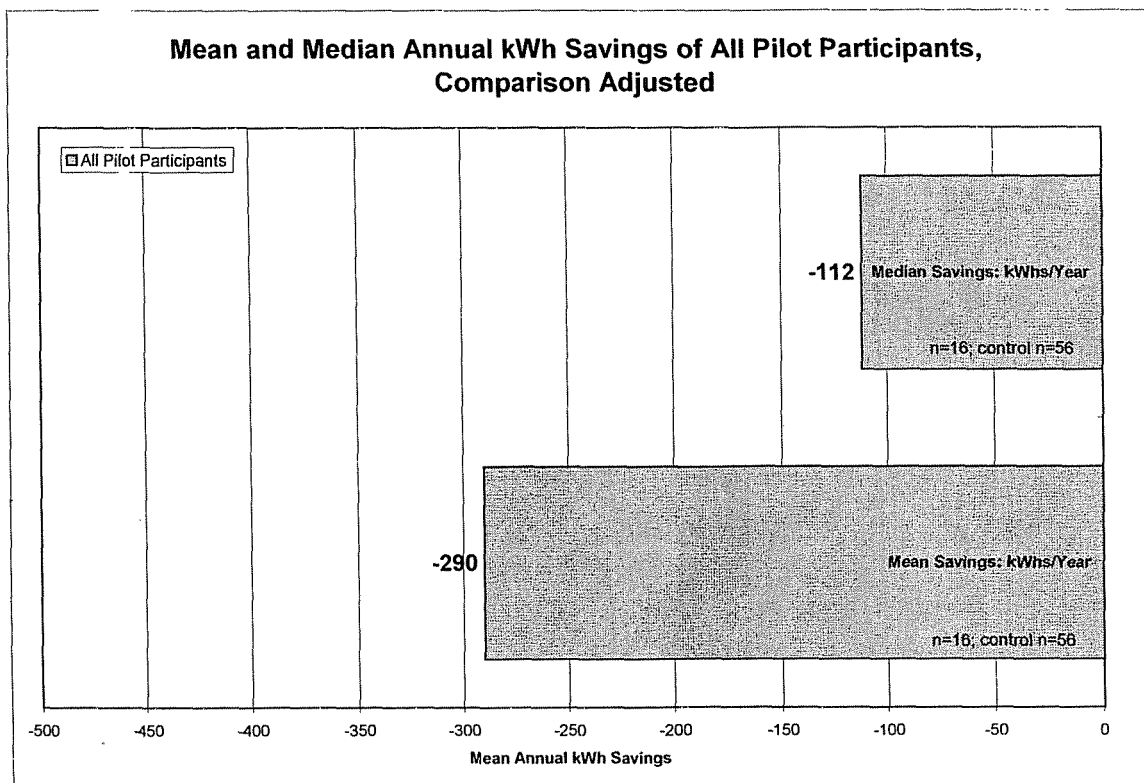


Figure 18 Mean and Median Savings per Year of All Pilot Participants Combined, Adjusted for Comparison Group Changes

Figure 18 above shows that the median kWh savings per year is lower than the mean negative savings. This indicates that over half of the participants are increasing their consumption by 112 kWhs per year or more, and some participants increase their consumption by an amount large enough to drive the overall mean to an increase in consumption.

Figure 19 below shows the mean and median annual therm savings, revealing that half of the Pilot participants that are not weatherized do have decreases in therm consumption, those that decrease their consumption do so at a large enough amount to keep the mean savings in the positive. Weatherized Pilot participants do well overall, saving a mean 143 therms a year, with half of the participants saving over 100 therms annually.

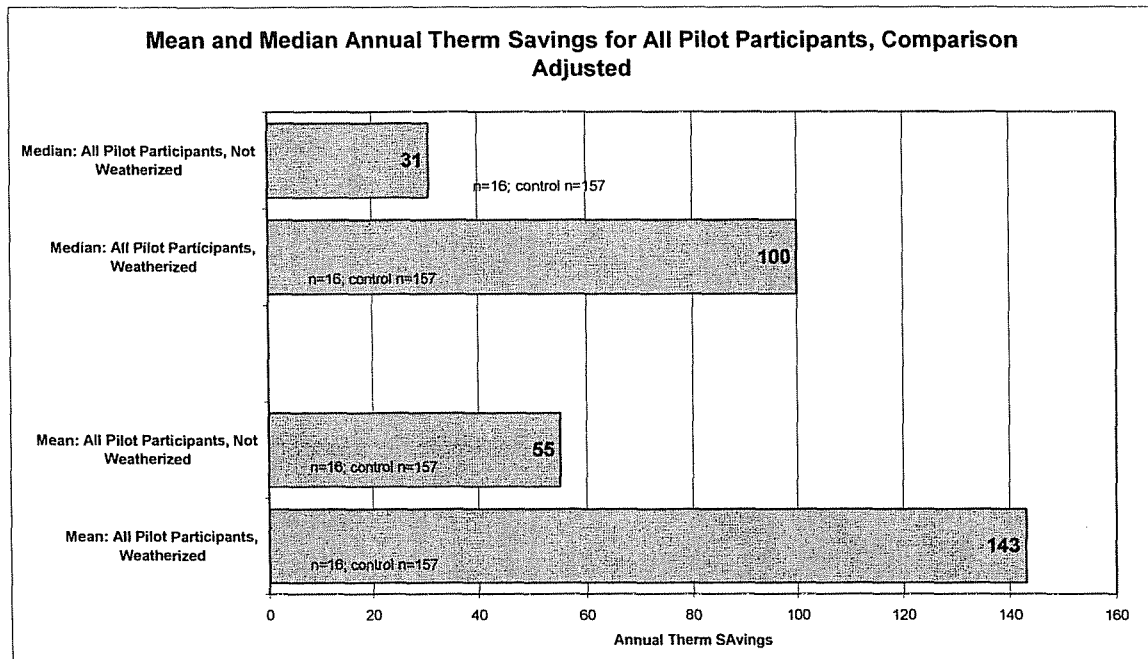


Figure 19 Mean and Median Therm Savings per Year for Pilot I & II Participants Combined, Adjusted for Comparison Group Changes

Summary of Energy Savings

While the kilowatt hour savings are discouraging, the therm savings for the Pilot participants are both strong and positive. The findings in this analysis point to weatherization as a key component of the Payment Pilot Program in reducing energy consumption in the low-income population. The program may want to consider making weatherization mandatory.

In addition, the kilowatt-hour consumption results for Pilots I and II have significantly changed over the past two years, indicating that the lessons learned in the energy class have either been forgotten or there have been changes in some of the households beyond behavioral changes.

Section IV: Arrearage Evaluation Results

Introduction

A key goal of the Payment Plus Program is the reduction of arrearages carried by the area's low-income population. As a result, a detailed analysis of the payment effects of the program were conducted to determine if there were changes as a result of participation in the Program.

Four years have passed since the Pilot Program I participants attended their training session(s) and (possibly) received weatherization. This is enough time to permit a long-term assessment of the effects of the program on arrearage levels. In a previous evaluation report we analyzed the arrearage patterns before, during, and for the short-term post period of Pilot I. In this study we will examine the post-program arrearage data for close to four years following the end of the program and test for changes in arrearage patterns due to participation in the Payment Plus Pilot Program I. Pilots II and III are also studied for medium- and long-term effects of the program.

Analysis Sample Size

The sample size for this analysis varies over each of the 60 months in this analysis (June 2001 through May 2006). The primary weakness of this arrearage and payment patterns analysis is that at times the sample size for the participants for which payment data was available can drop to a very low level, and for some months in the Pilot II analysis there is no data. At most, there are 52 customers in the Pilot III participant group. The overall analysis of the combined participants provide a range of 10 to 113 participants, so this overall analysis is the most rigorous and statistically sound.

Many of the customers in both the participant and comparison groups have moved or dropped their service, causing accounts to be eliminated from this analysis. The results presented in this section are based on participants that have enough data to examine trends in usage. The comparison group also changes over the 60 months, and two different groups are used through the analysis. One comparison group is compared to Pilot I and II participants, and another is compared to the Pilot III participants. The overall analysis combines the two comparison groups. In retrospect, we realize it would have been better to forecast the need for longer-term analysis for the Pilot program four years ago and select a comparison group at that time that was large enough to carry the analysis forward for at least four years. Future comparison groups should be informed by the potential need to reevaluate participants over extended periods of time.

Arrearage Levels

Pilot I

Arrearage levels for the Pilot I participants who had enough data to analyze have decreased from a mean monthly arrearage of \$719 in the six months before participation to \$438 in the last six months of the analysis, 43 to 48 months after participation. The

comparison group’s monthly average arrearage for these same periods of time increased from \$338 to \$449.

The arrearage levels presented in Figure 20 represent the average monthly arrearage for the participant group and the comparison group over the six months before the program compared to the six months after the program (1-6 months), after which the analysis block is months (7-12 months), and so on until the latest billing month pulled for this analysis (May 2006). The 6-month block before the program ends immediately before the classes, and runs back 6 months (August 2001 through January 2002). The period after the program starts immediately following the program, and runs for 6 months (June 2002 through November 2002), and the last period reflects mean monthly arrearage data for the period December 2005 through May 2006. This analysis allows us to examine the data for four full years after the program compared to six months prior to the program, taking into account the effects of high winter and summer energy costs across all three periods of time.

Essentially this graphic shows that Pilot I arrearages have decreased by 39% in the four years since and the Payment Plus Program. The comparison group’s arrearage has increased 33%, indicating that the Pilot I participants are doing well in managing their arrearages, keeping them down while the comparison group’s arrearages have increased.

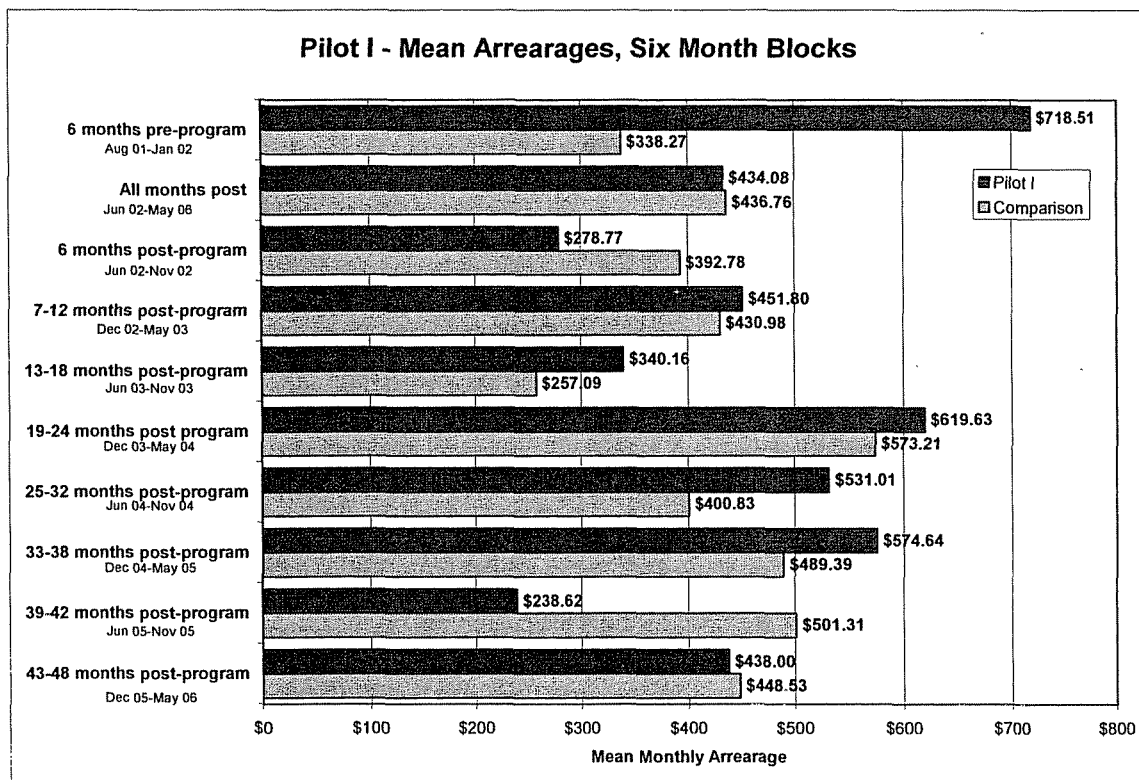


Figure 20 Mean Monthly Arrearage Levels for Pilot I Participants

Figure 21 below show the mean arrearages of Pilot I participants for each month of the study. Before the program period, it is easy to see the right participants were chosen by

the fast accumulation of arrearages that averaged over \$1,000 before they participated in the program. The program, through credits and encouraging behavioral changes, reduced that average arrearage to just over \$200.

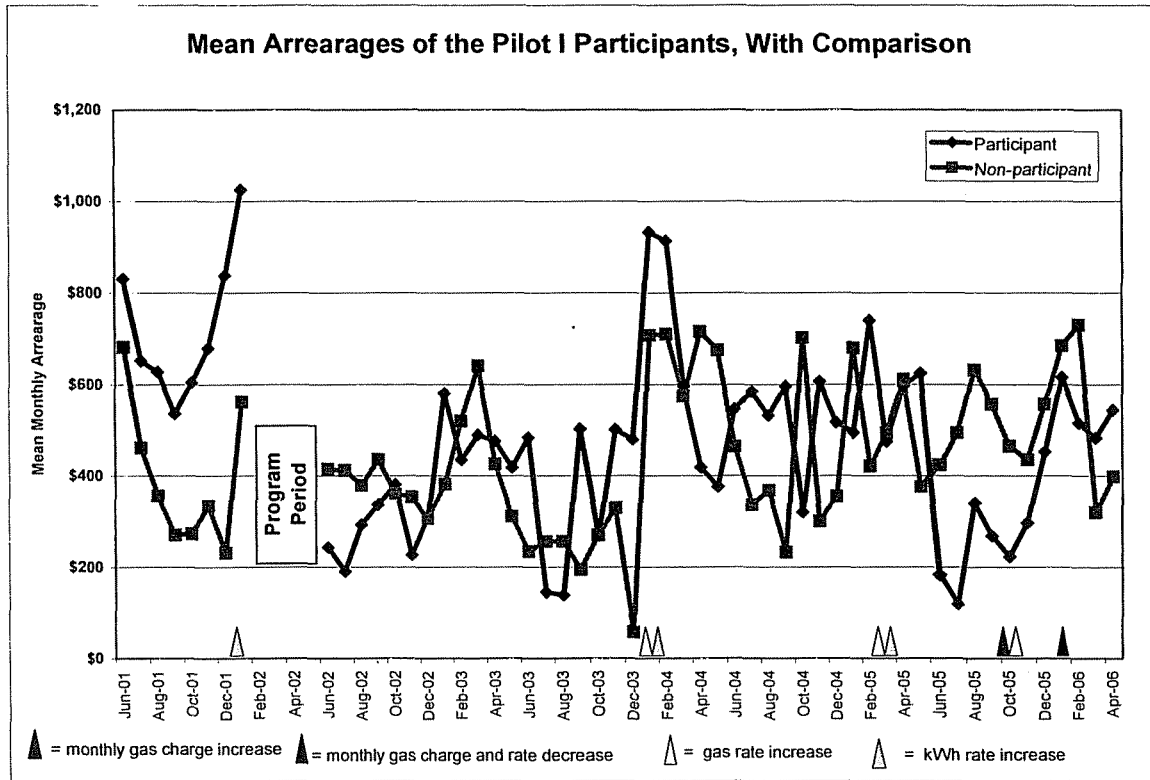


Figure 21 Mean Arrearages of the Pilot I Participants by Month, With Comparison

Pilot II

The analysis of the Pilot II participants is based on the billing and arrearage data of 55 customers that had data to analyze and who did not move during the study period.

Pilot II participants increased their arrearage over the study period by only 5%. The comparison group increased their arrearage by 51%. The rate of increase is much lower for the participants, and the arrearage for the participant group is still lower (in dollars) than the mean arrearage of the comparison group.

For Pilot II, six months of pre-program data was used (December 2002 through May 2003), and thirty-five months of post data (July 2003 through May 2006).

Figure 22 below shows that Pilot II participants maintained a fairly steady level of arrearage throughout the post-program period. The comparison group’s arrearage was more erratic, and also increased over the time period studied.

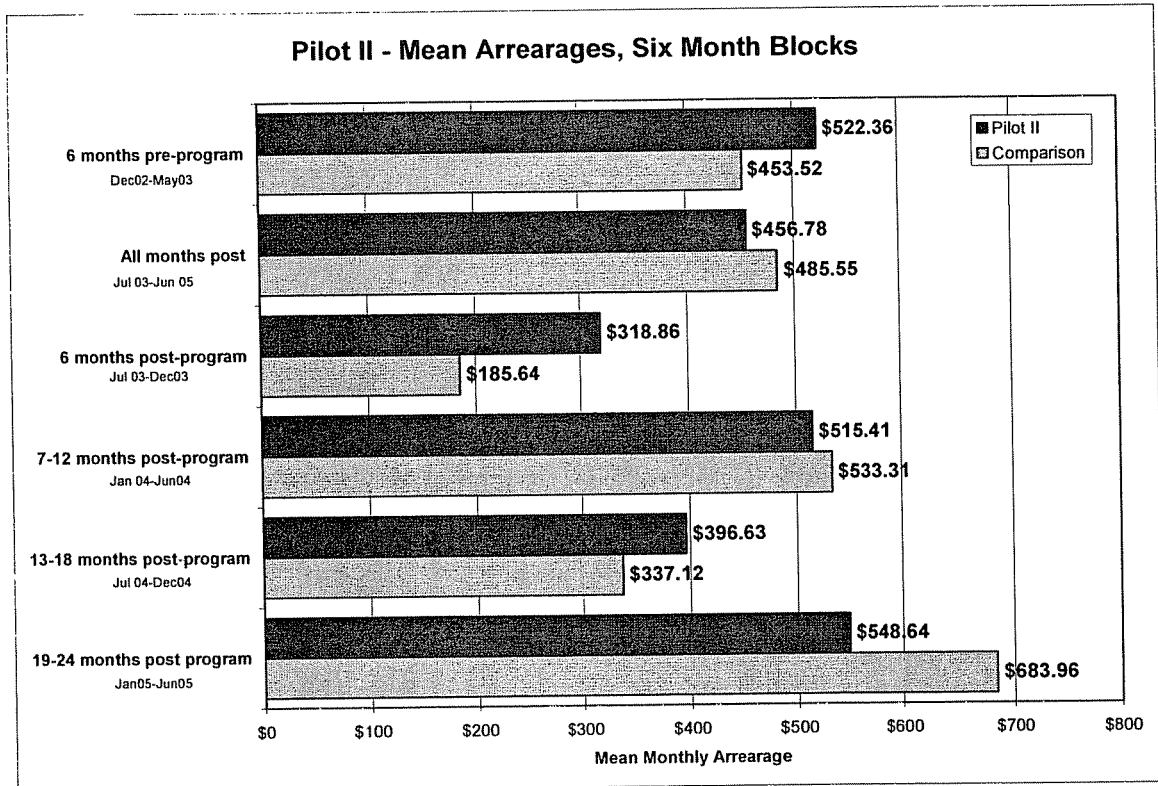


Figure 22 Mean Monthly Arrearage for Pilot II Participants

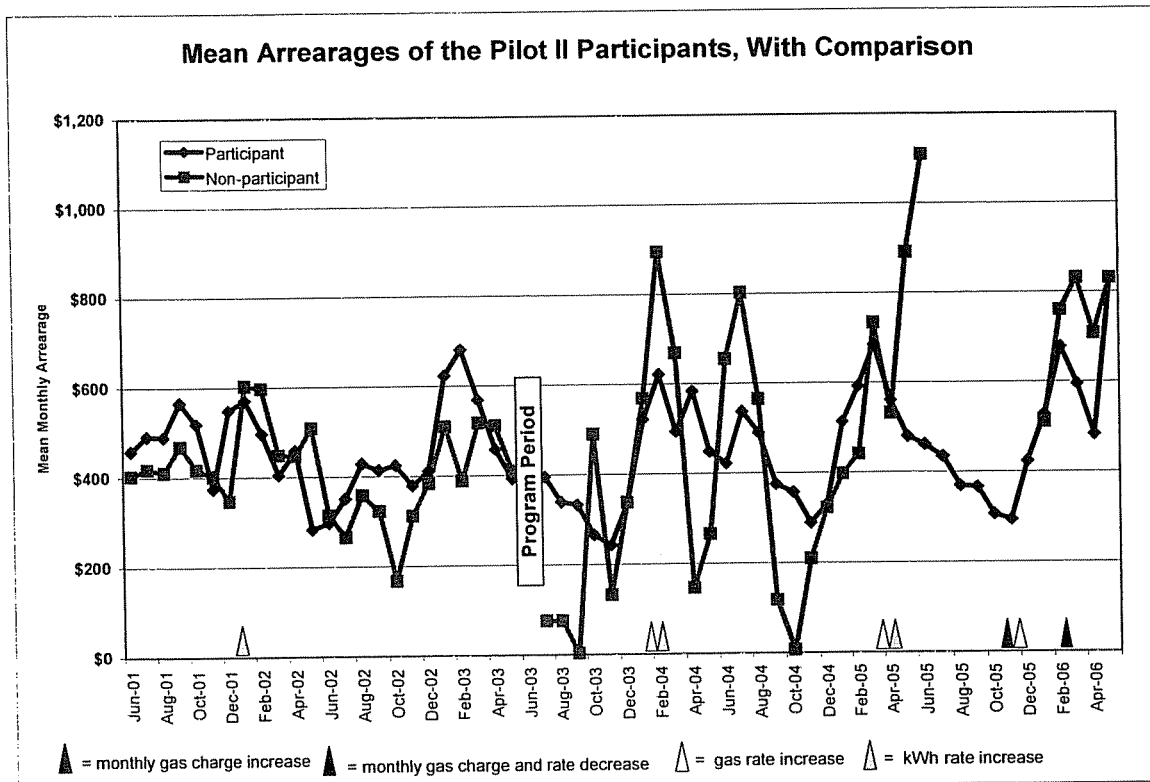


Figure 23 Mean Arrearses of the Pilot II Participants by Month, With Comparison

Pilot III

Pilot III participants, like the Pilot II participants, have slightly increased their arrearage in the months since the Pilot III program. In the six months before the program (June 2003 through November 2003), the participants carried an average arrearage of \$421, while the comparison group's arrearage was \$452. Both the participant's and comparison group's arrearage hold steadily in the six-month blocks following the program months. The Participant's average arrearage increased by 18% to \$496, while the comparison group average arrearage increased by 10% to \$496. While the participants are carrying the same level of arrearage, those arrearages are growing at a slightly faster rate than those of the comparison group.

Figure 25 below shows the Pilot III participants and comparison group mean monthly arrearages for the time period studied. Arrearages for the participants actually increased the month after participation in the program, but then in later months their arrearages were about the same as those in the comparison group.

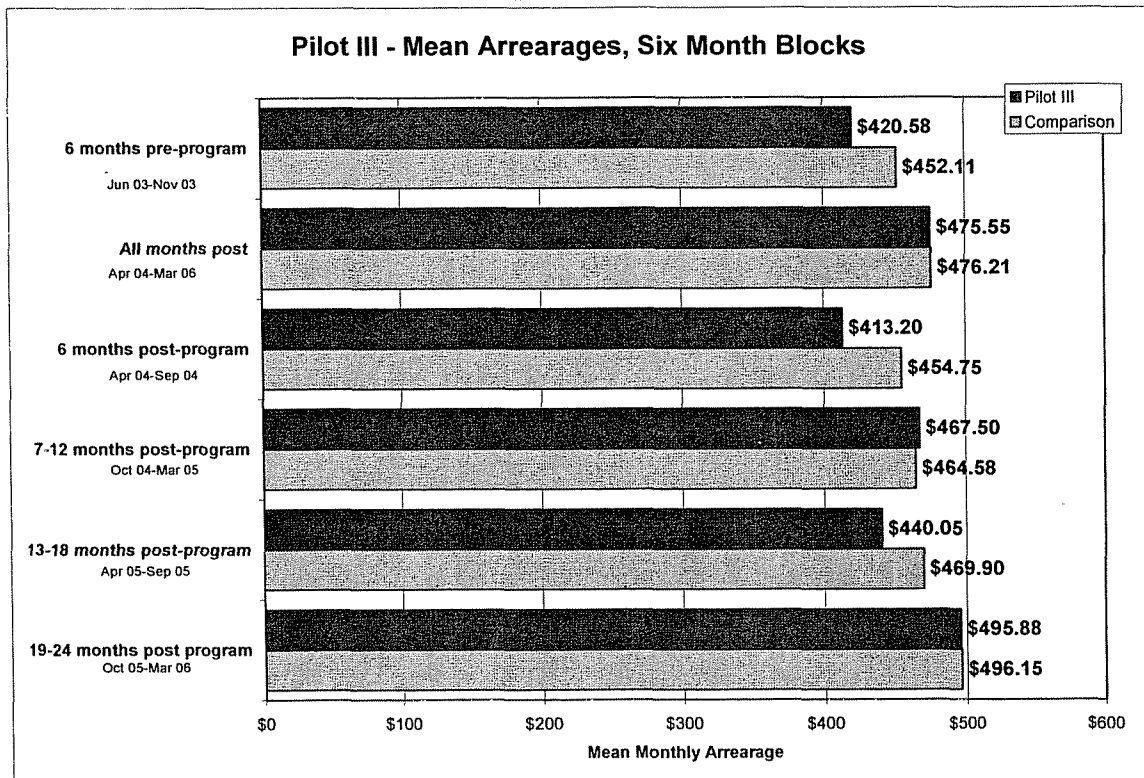


Figure 24 Mean Monthly Arrearage for Pilot III Participants

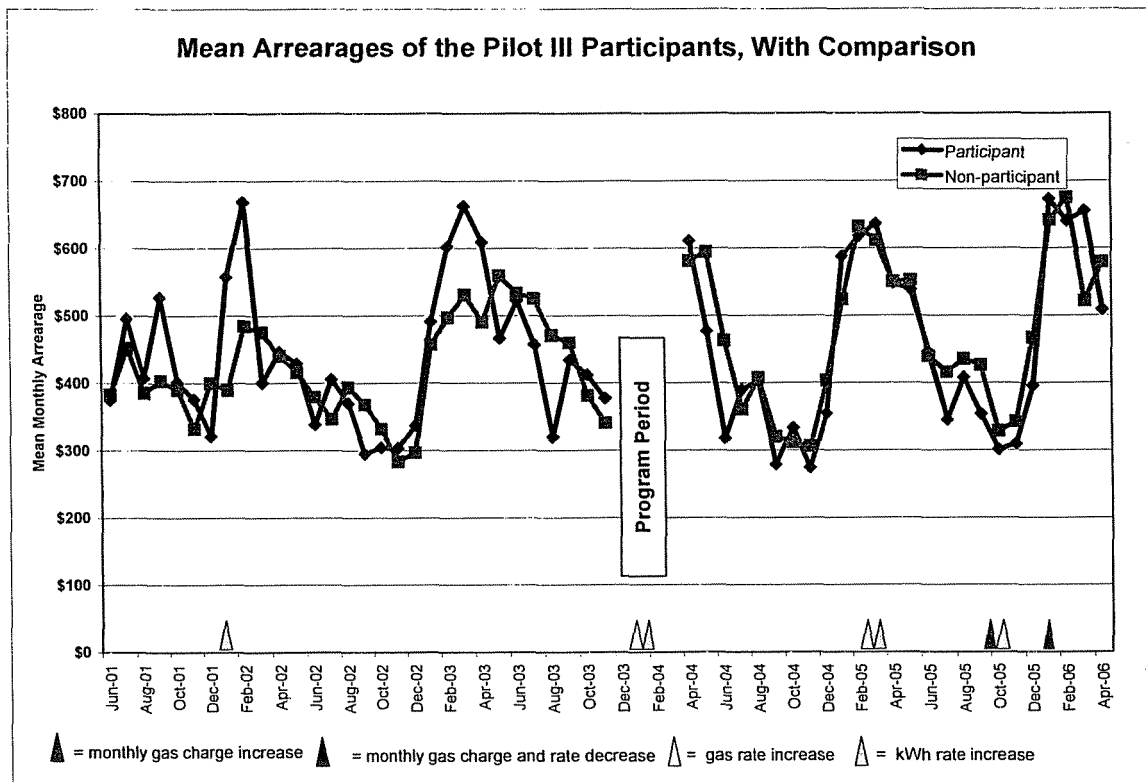


Figure 25 Mean Arrearages of the Pilot III Participants by Month, With Comparison

All Pilots

The three Pilot participant groups were combined to gauge the overall effect on arrearage of the Payment Plus Program. Figure 26 below shows the mean monthly arrearage in the six months before the pilot programs for the participants and the comparison group, and the mean monthly arrearage for all months since program participation for all participants and comparison group customers.

Pilot I participants carried the highest mean arrearage before entering the program, which is a result of the enrollment efforts for that Pilot, which focused on customers in crisis-mode. Their arrearages were significantly reduced since program participation, and they, as a group, have maintained much lower mean arrearages since the program which was four years ago. The comparison group used for Pilot I has had the opposite condition, their arrearage has increased from \$397 to \$437.

Pilot III is the only participant group that has increased their mean arrearage since participation, but the increase is slight (\$437 to \$476). However, the comparison group also slightly increased their arrearage from \$420 to \$476.

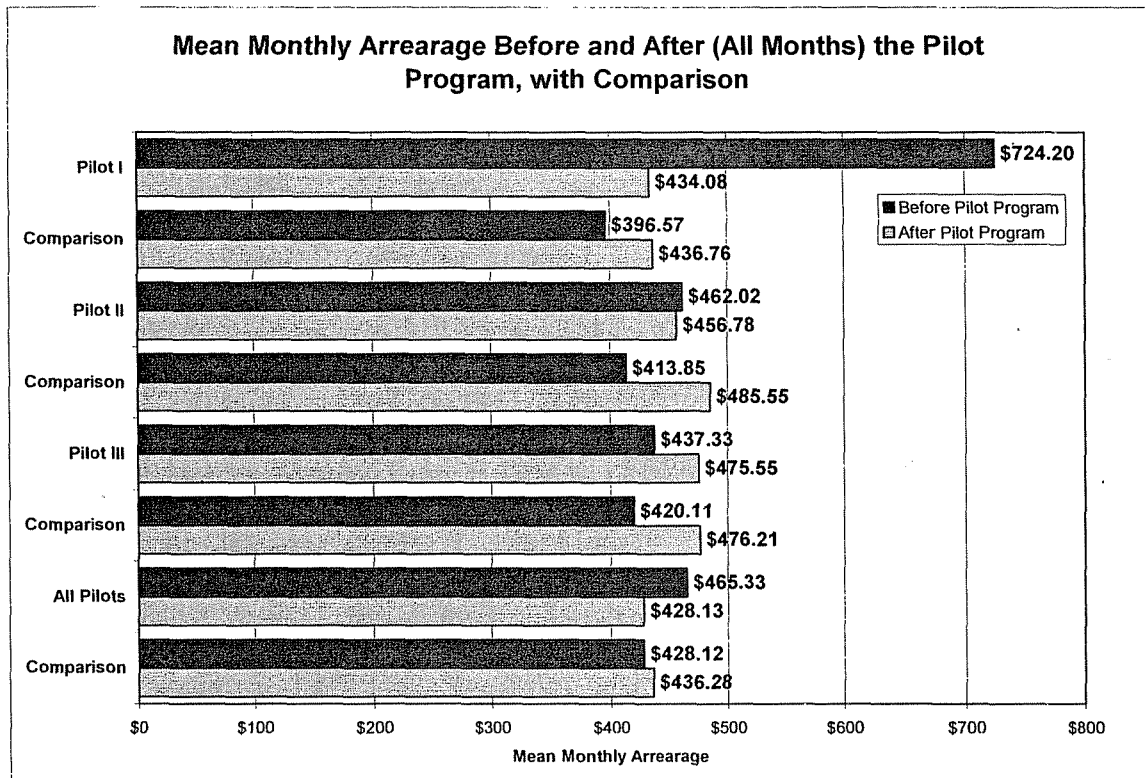


Figure 26 Mean Monthly Arrearage for All Pilot Participants

When the data from all three Pilots are combined, it’s clear that the Payment Plus Program has a positive effect on the arrearages of the participants. The average monthly arrearage in the six months before participation is \$465.33, and this drops to an average arrearage of \$428.12, a decrease of 8%, while the arrearage of the comparison groups all increase.

The median arrearage over the same periods of time mimic the mean, but the overall drop in arrearage is much larger for the Pilot Program participants, with the median arrearage being \$377 after the program, where the mean above was \$428. This indicates that over half of the Pilot Participants were able to reduce their arrearage but there are some customers whose arrearage is high enough to bring the mean up to \$428.

The low-income customers that participate in the Payment Plus Pilot Program lower their arrearage when compared to the comparison group. Overall, Pilot participants reduce their arrearage by 8%, while the comparison group increased their arrearage by 2%, resulting in a 10% decrease in arrearages for the Pilot participants over the long-term.

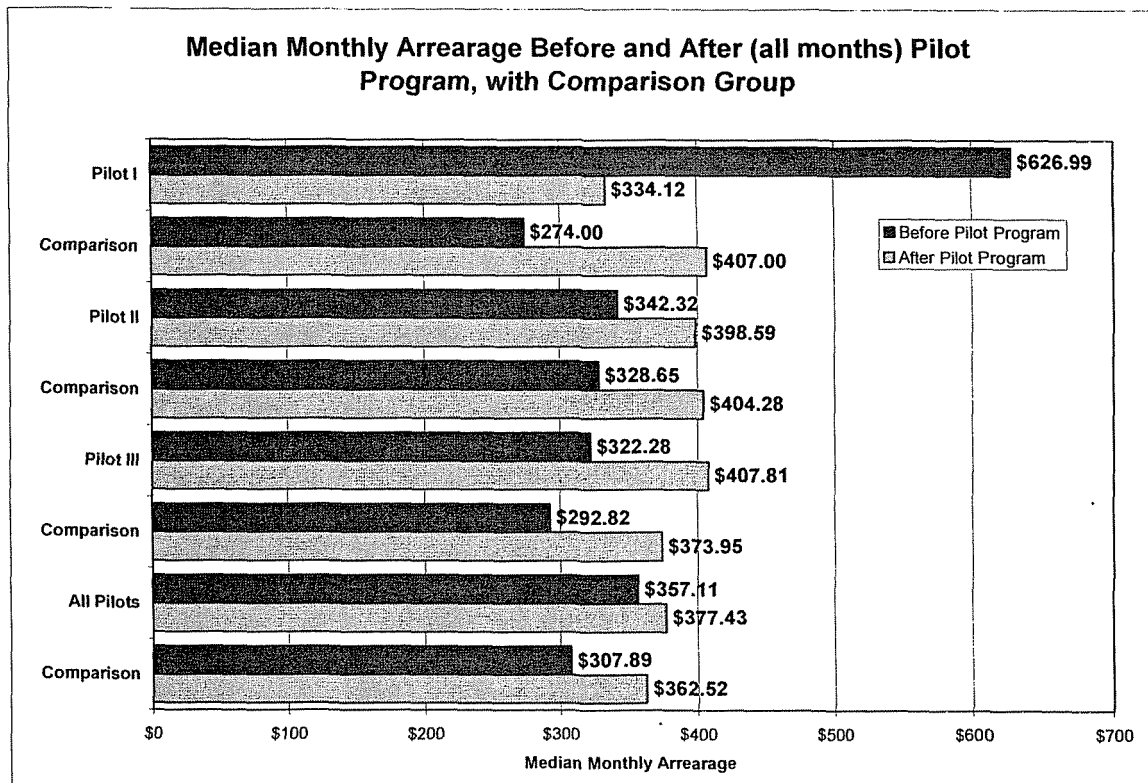


Figure 27 Median Monthly Arrearage for All Pilot Participants

Section IV: Payment Effects

Percent of the Bill Paid - Pilot I

This section looks at the payments made each month by the Pilot participants and the comparison group in comparison to the amount due on their bill. (Please see the introduction of the previous section on Pilot I arrearage for information on sample sizes of both the participant and comparison groups.)

During the examination of the payment data we noticed that in many cases multiple payments were made during a single month as people struggled to make weekly or bi-monthly payments. When these instances occurred we summed the payments made by the customer and then compared the sum to the amount due on the bill for that month. If there was no payment made in a month, they were excluded from the analysis for that month (no data to evaluate). Therefore, Figure 28 shows the percent of the bill paid of those that made a payment on their bill.

Figure 28 below shows how the percent of the total bill paid (by those making a payment) has changed. Pilot I has the highest increase – paying an average of 56% of the amount due since they participated four years ago, compared to only an average of 47% of the bill in the six months before participation. More of an improvement has been made when the comparison group is factored in, as they have decreased the percent of the bill paid during the same time period, from 54% of the bill to only 30%.

Pilot II has decreased the amount paid on their bills, but is doing better than the comparison group. Pilot III has maintained their level of payment, which is an improvement over their comparison group, which has decreased their percent of the bill paid from 54% to 47% during the same time period.

Over all the Pilot groups, the percent of the bill paid has stayed the same. Before participation, they paid 49.5% of their bill, and since participation, they pay 49.8% of the bill. However, the comparison groups have decreased the percent of the bill paid from 52% to 45% of the bill. Together, the program has improved the payment ability of the participants relative to the comparison group.

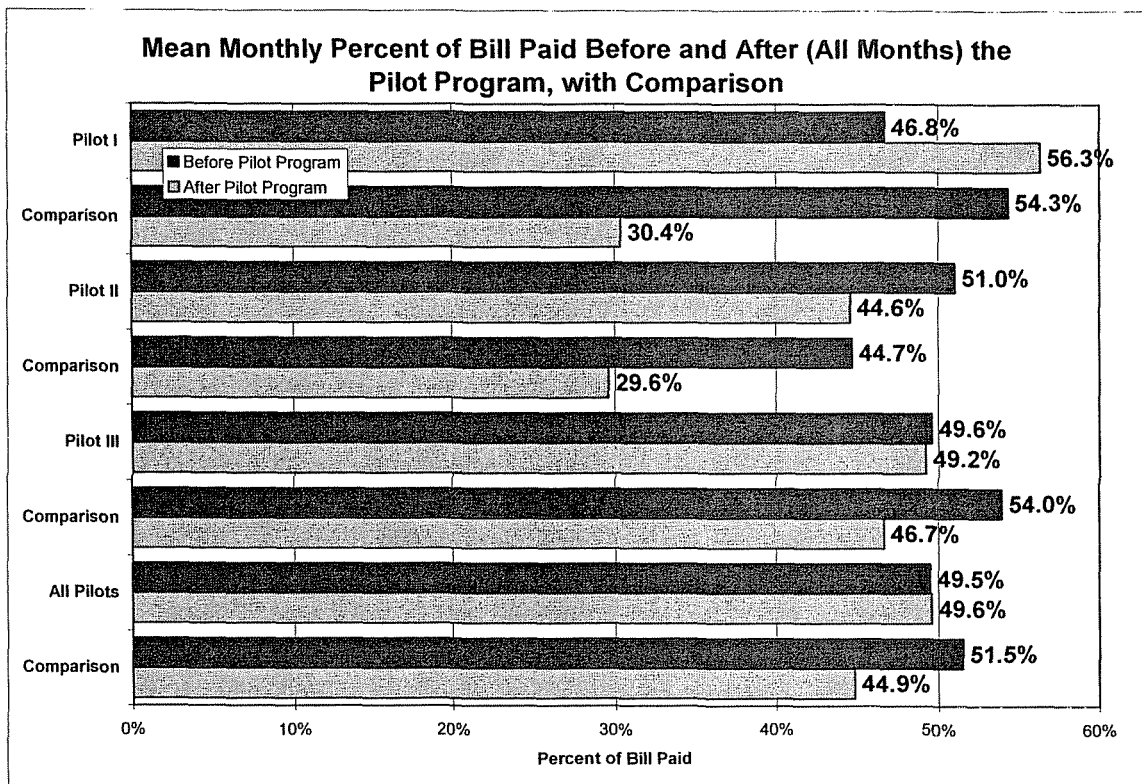


Figure 28 Mean Percent of the Bill Paid by Pilot Participants

When the Pilot groups and comparison groups are combined, the participants have not changed their payment behavior very much (from 41% paid to 42% paid). However, the comparison group has dropped their percentage of the bill paid drastically, from 89% to 51%. That is, while non-participants are becoming less able to pay their bills, participants have been able to maintain their payment patterns.

Disconnections

Another indication of changes in payment behavior is the frequency of disconnected service in the studied groups. Figure 29 below shows the percent of customers that were disconnected in each of the studied groups. The graph covers all months studied (June 2001 through May 2006). Pilot I participants were disconnected at a rate of 1.54% for each month in the months leading up to their participation in the Pilot Program. In the months since their participation, an average of 2.23% of the customers in any given month will be disconnected, an increase of 45%. However, the comparison group studied in conjunction with Pilot I participants have fared worse. In the months before the program was offered, disconnection was a reality for 2.29% of the customers in any given month, whereas since the program, it occurs to 5.97% of the customers in the comparison group, and increase of 260% - a rate of increase almost 6 times that of the Pilot I participants.

Pilot II has a similar story. The participant’s rate of disconnection increases from 1.48% to 4.33% (by 292%), while the comparison group increases from 4% to over 7%, an increase of 78%. The rate of increase is higher for the Pilot II participants, but the real disconnection rate is still around half of what the comparison group has been experiencing in the same timeframe.

Pilot III participants are the only Pilot participants that have experienced a decrease in their disconnection rate, which fell from 3.05% to 2.44%, a decrease of 20%, while the comparison group’s rate has increased by 10%.

Combining the Pilot participants, it is clear that the participants have a lesser chance of being disconnected than the comparison group. Overall, the Pilot participants have a 2.85% disconnection rate, while the comparison group’s disconnection rate has moved to almost 6%.

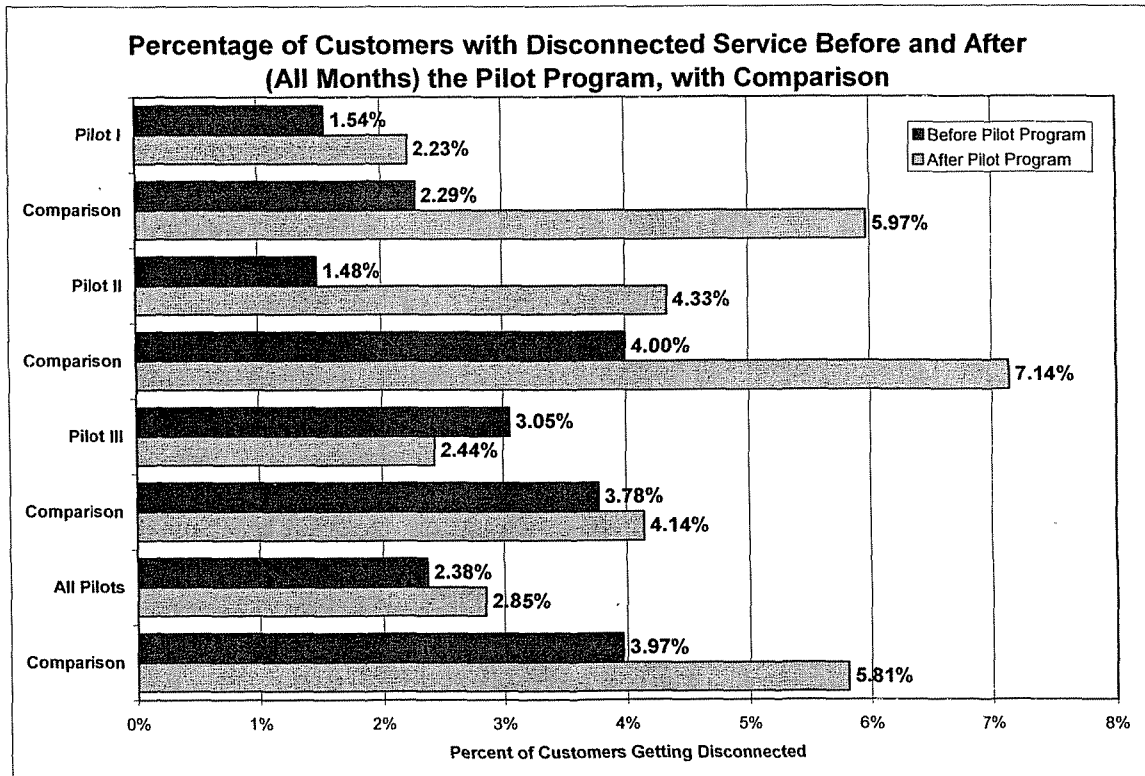


Figure 29 Percent of Customers with Disconnections

Days to Pay Bill

Another potential indicator of program effects is the change in the number of days it takes for participants to pay their bill relative to the comparison group.

During the pre-program period, Pilot I participants on average made a payment to Duke Energy (then Cinergy) 18 days after the billed date, and since participating their consumption has not changed (18.35 to 18.31). The Pilot I comparison group has shortened the number of days to payment from 17.64 to 13.19 during this same time period.

Every group in this analysis has shortened the number of days to pay their bill, but in every Pilot study, the comparison group did so by a larger degree.

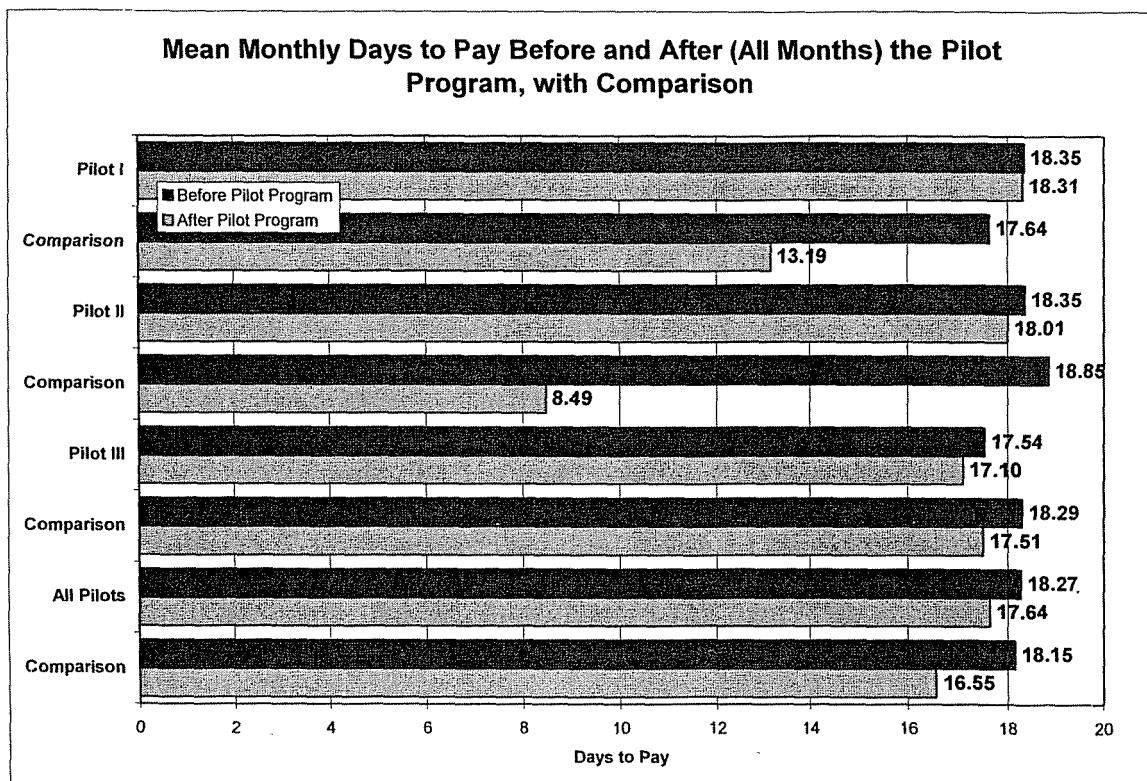


Figure 30 Mean Days from Billing to Payment for Pilot II Participants

Percent of Customers Making a Payment

Another potential indicator of program effectiveness is the percent change in the customers who are sending in a payment each month. The figures below show the percentage of customers in each of the Pilot groups that are paying any amount on their bill.

Pilot I participants, in the few months of data available from before the program, were making a payment of at least some amount an average of 60% of the time, while the comparison paid at least some of their bill 68% of the time. After the Payment Plus Program, the participants made a payment about 55% of the time, a drop of 8% compared to a 37% drop in the amount customers making at least some payment in the comparison group. This data indicates that the Pilot I participants are making a payment more frequently than the comparison group during the post-program period.

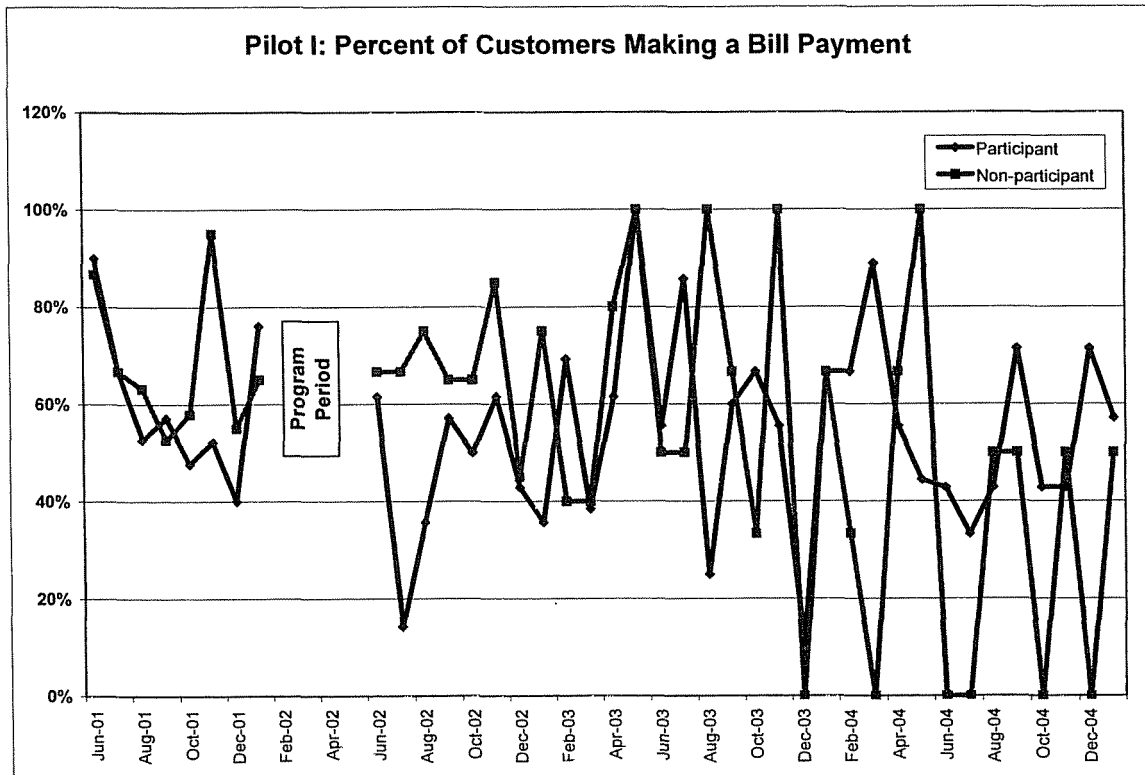


Figure 31 Mean Percent of Pilot I Customers Making a Payment Each Month

Pilot II participants made a payment 68% on their bills before the program, but only 43% of the bills in the twenty-two months after the program. The comparison group made a payment on 55% of their bills in the pre-program period, and 68% of their bills in the post-program period, making an improvement that in turn reflects poorly on the payment behaviors of the Pilot II participants.

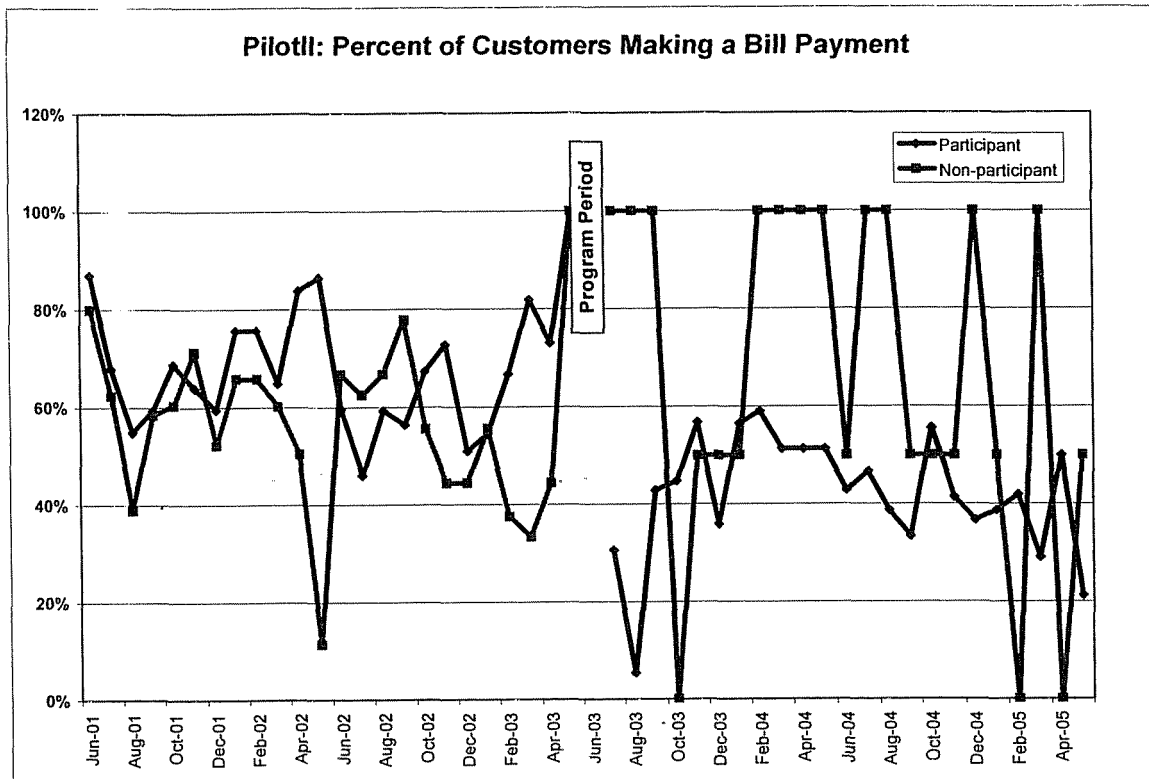


Figure 32 Mean Percent of Pilot II Customers Making a Payment Each Month

Pilot III has the most rigorous data, with higher numbers of customers. The Pilot III participants made a bill payment 62% of the time before their participation in the program, while the comparison group did only 43% of the time. In the post program period, Pilot III participants dropped from 62% of bills being paid in part or in full to 49%, a drop of 21%. The comparison group dropped to 31% making a payment on a bill, a drop of 28%.

Overall, all of the participants in the Pilot program studied made payments towards their bill less frequently in the post-program months. However, the comparison groups did as well in two out of three studies.

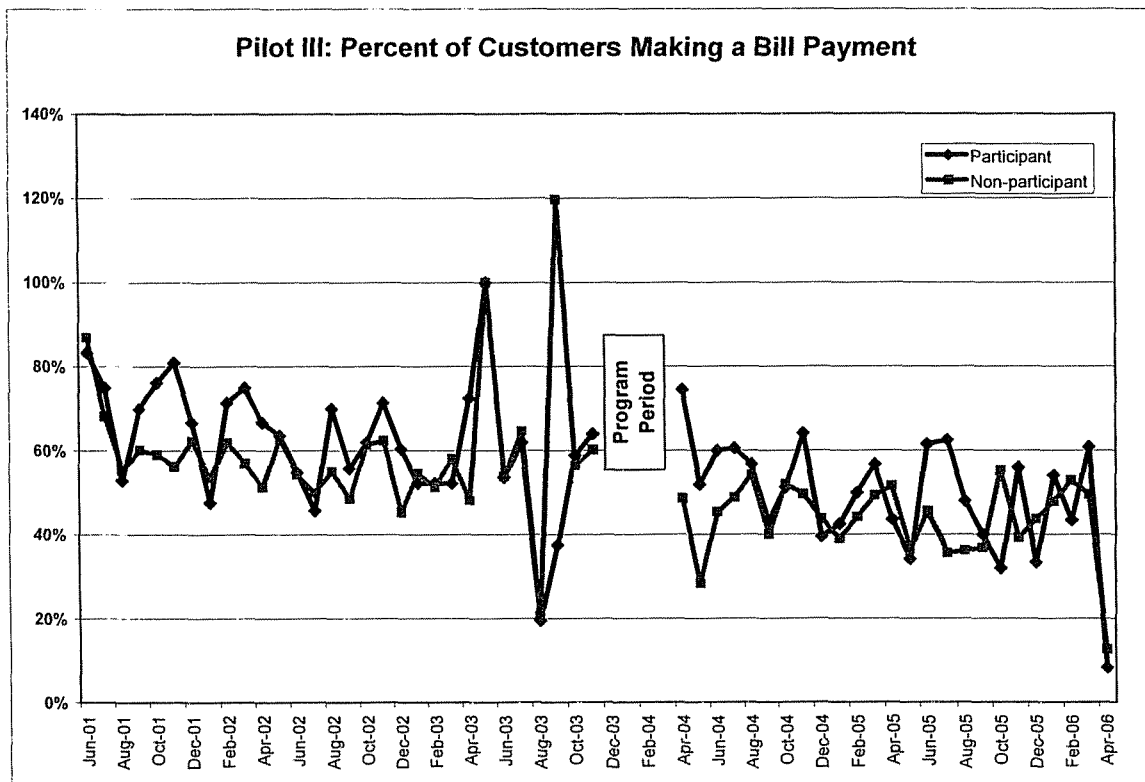


Figure 33 Mean Percent of Pilot II Customers Making a Payment Each Month

CONCLUSIONS

This evaluation involved four independent coordinated studies. The first study consisted of a process evaluation. The second focused on the energy use changes as a result of the Payment Plus Program, the third study focused on evaluating the arrearage and payment effects of the Pilot program. And finally, we performed a short interview with a sample of the Pilot IV participants to gauge customer satisfaction with the program.

The process evaluation examined the operations of Pilot Program IV, implemented from August through September of 2006. This study involved an examination of the management and operations of the Pilot Program as it is operating currently. The process evaluation included on-site interviews with key program designers, managers and implementers. The second study was an effects evaluation focusing on identifying how the program influenced participant energy consumption using weather-normalizing software, and the third examined arrearage levels and payment effects. The effects evaluations used a comparison group of low-income customers who were not weatherized to serve as the baseline from which changes to the participant group could be measured. The arrearage and payment effects evaluation examined the billing and payment histories of Pilot I, II and III participants.

From these studies we conclude the following overarching findings:

This program has been evaluated over a number of years in its “pilot” status. These evaluations show that the program has evolved to point where the implementation efforts are efficient and effective, and customer satisfaction is high. In addition, the evaluations show strong and long-term natural gas energy savings, short-term electric savings and to some degree, impacts on arrearage and payment levels. TecMarket Works recommends that the Payment Plus move beyond the pilot status into a standard program component of Duke’s low-income service portfolio. Process Evaluation Findings

Pilot IV

1. The process used to enroll Crisis participants has improved to the level at which the Northern Kentucky Community Action Commission (NKCAC) has to turn down applicants. The latest Pilot Program was at full capacity. All potential enrollees should continue to be pre-screened before the program is offered to make sure that the program is only offered to eligible customers.
2. The communications and working relationships between People Working Cooperatively (PWC) and NKCAC have significantly improved. There is better and more consistent coordination of services, with times and dates of Pilot training sessions rapidly communicated between the organizations, PWC has been available to attend training sessions and answer questions about the weatherization. This has increased enrollments into the weatherization program.

In addition, Duke managers have been given advanced notice of meetings, allowing their participation.

3. PWC has made an effort to contact landlords to help Pilot participants obtain the needed permission for weatherization. While contact is difficult, when accomplished, the landlords have been positive about the program and allowed weatherization to go forward. However, this issue remains a participation barrier for renters.
4. The interviewed managers at NKCAC and PWC report that they would like to see the following program changes:
 - a) Continue to try and reach the more rural areas of the targeted counties. If these customers can be cost effectively served, recruit and provide training sessions throughout the counties into more rural areas of the service territory to allow more rural low-income customers an opportunity to participate without having to travel great distances.
 - b) Let the service providers know that they are free to piggy-back or coordinate the program with other social services provided by the implementation agencies to expand services and increase demand and enrollment success.

Significant Participant Interview Findings

Pilot IV

1. The driving force for participation was to receive the bill credits. Eighty percent cited the credits as the primary reason they chose to enroll. Thirty-six percent said that they participated in order to learn how to save energy.
2. Program participants understood the program and the procedure for applying their credits better than in the past. This was an area of confusion for past participants that appears to have been eliminated.
3. Reported problems with getting the credits applied to their bills has dropped significantly. Very few of these issues are now being raised by participants. The process involved in applying credits was streamlined after the previous evaluation, with the intent of reducing or eliminating these types of complaints. This goal appears to have been achieved.
4. Participants are still very satisfied with the Training Sessions. On a scale of 1-10, average scores for all aspects of the training sessions were high across most response categories for both sessions (energy & budgeting). Satisfaction was particularly high when rating the instructor's knowledge (9.4 & 9.6),

comprehensiveness of subject matter (9.2 & 9.3), and presentation skills of instructor (9.2 & 9.4). The convenience of attending the session was the only response group that received satisfaction scores below 9 (8.6 & 8.8) indicating that there was less satisfaction with the convenience of attending the sessions, but these satisfaction scores are very good scores when using a 10-point scale.

Significant Energy Consumption Analysis Findings

Pilots I, II and III Combined

1. Over the longer period of this study the pilot participants have not been able to reduce their electrical consumption. This is different from the previous evaluation in which the participants experienced reduced electric consumption.
2. Pilot participants who were not weatherized are still able to decrease their consumption of natural gas in all Pilots but Pilot I. The weatherized participants over the successive pilots are saving even more natural gas.

Weatherization is a key component of the Payment Plus Pilot Program for savings natural gas over the long-term. While kilowatt-hour savings are no longer present, participants have experienced electric savings for a significant period of time in past evaluations. These savings have eroded as the months and years have passed. It may be possible to recoup some of these savings by re-communicating tips on how to save electricity with past participants, or by allowing past participants to re-enroll in the energy training session (with or without program credits).

Significant Billing Analysis Evaluation Findings

Pilot I

Each of the Pilots are discussed separately in this section.

1. Arrearage levels for participants have substantially decreased in the years following participation (from \$719 to \$434), and non-participant arrearage levels increased slightly.
2. Likewise, there is also a trend suggesting that participants are beginning to pay a higher portion of their bill following participation. Participants paid, on average, about 47% of their utility bill during any given month before the program. Since participation, they have increased the percent of the bill paid to just over 56%. Participants appear to be increasing this amount while non-participants appear to be decreasing this amount.
3. Pilot I participants have been successful at decreasing their disconnection rates relative to the comparison group. In the post-program years, the comparison

group has had a disconnection rate of 5.97%, while the participants have kept their disconnection rate quite low at 2.24%.

Pilot II

TecMarket Works examined customer billing and payment records for a period of two years prior to the program and for three years following the Pilot II program (although some months are excluded due to poor sample size). The results of this analysis are presented below and in Sections Three and Four of this report. Significant findings include:

1. Pilot II participants have experienced a decrease in their arrearage levels in the months after participation. In the two years of post-program months, arrearages decreased by an average of 13%, whereas the comparison group arrearages increased by 7%. However, the participants' arrearage levels in dollars are lower than those of the comparison group. That is, participants have been able to hold their level of arrearage below the level of non-participants, even though participant arrearage levels have increased.
2. Participants were able to limit the level of erosion of the amount of the payments they made each month relative to the total amount due on their bills. Participants were paying about 51% of the amount due before the program, after participation, they paid about 45% of the total bill. Likewise, the comparison group also decreased the amount they paid relative to what they owed during the same time, dropping from 45% to 30% of the bill paid.

Pilot III

Pilot III has the strongest sample size for this analysis. There were typically data from at least 30 participants in each of the months analyzed, and a very strong comparison group of about 100-500 customers.

1. The mean arrearages of the Pilot III participants have increased slightly since participating in the program, at about the same level as the comparison group. There has been little change in this area.
2. Disconnections have decreased since participation. Before the program, the disconnection rate was 3.1%, and since then it has dropped to 2.4%. The comparison group's disconnection rate has increased from 3.8% to 4.4% in this same time period.
3. The percent of the bill paid by Pilot III participants has remained steady, while the comparison group has been paying less of their bill during the same time period.

Appendix A: Process Evaluation Interview Protocol

Title: _____

Responsibilities associated with the Pilot Program: _____

Note: check the box next to each question that needs to be addressed by each interviewee.

Program Accomplishments and Objectives

- Using your experience and knowledge about the Pilot Program, please finish the rest of the following statement. I think this program can be viewed as a success if it accomplished the following things....
 - 1.
 - 2.
 - 3.
- How well do you think the Pilot Program accomplished each of these things?

Customer recruitment and retention

- I understand that there were a couple different ways in which participants were identified, contacted and offered the program. Please describe each of the ways customers were identified, contacted and enrolled in the program.
- What aspects of this process worked well? Which worked least well? Why?
- Please describe how the targeted mailings used to inform customers worked and how successful you think this effort was as stimulating customer's interest and involvement in the program. How could this be improved?
- What system for identification, notification and enrollment do you think should be used in order to obtain participants and accomplish Duke Energy's program goals? Discuss how these might work.
- What screening tests were used to make sure the right customers were enrolled in Pilot IV? Please explain how the screening process worked. Walk through some different examples of how this worked. In your opinion, how well did this work? Why? Are any changes needed to the screening process?

- To be eligible for Pilot IV, LIHEAP participants needed to have been a Duke Energy customer for a while (12 months – then 6 to 9 months). What portion of the LIHEAP customers that were contacted or approached were actually eligible for Pilot IV because of the requirement for 6 to 12 months of account history?
- What percent of those contacted or approach were eligible because of the need to have \$500 or more in current utility debt?
- What percent of the non-crisis-mode customer that you presented the program to were interested in participating?
- What are the main reasons customers have for not wanting to participate?
- What percent actually enroll once they apply and are screened?

Drop-outs and No-shows

- Why did some of the Pilot IV participants offered the program not take advantage of it?
- Why do you think customers enroll in the program, but then do not take part?
- What can be done no decrease the program drop-out rate and keep them involved?
- What can be done to increase the interest in receiving the weatherization service?

Program process

- The current contract with Duke Energy requires the workshops to be out in the market so that participants can more easily attend the workshops allowing the program to experience higher workshop participation rates. How well is this working for NKCAC. Is the change to off-site workshops having the intended effect?
- What complaints or customer issues did you experience in Pilot IV? How were these handled?
- What can be done to help solve (complaint 1 / complaint 2 / complaint 3 / etc.)?
- I would like you to tell me about the customer's experiences with the program. What kinds of things did they like, what kinds of things did they dislike, and how do you think they feel about the program overall.

Program Management and Communication

- Were there any coordination and notification issues regarding the Pilot IV workshops? Please explain what these issues were and why they occurred?

If yes to above: What was done or can be done to improve this process?

- Describe the process used for obtaining weatherization applications from program participants and getting the applications into the weatherization planning stream.
- How well did this process work? Were there any problems in getting the applications to PWC after the participants filled them out? How can this process be improved?
- In the past there have been some issues relating to providing credits to participants after they attend a workshop. How are these credits being applied now? What is the system that is currently being used to credit accounts and how well is it working?
- Were there any participant tracking, accounting or processing problems, or issues associated with tracking and delivering services or incentives? What were they and how can these be avoided in the future?
- What other types of management or participant issues have come up and what were their resolutions?
- If you had one thing to change about the Pilot Program, what would it be? Why? How should this be incorporated into the program? Anything else that you would change?
- When you look at the help provided to participants by the program, and weigh the program costs and operational challenges; what would you say are the different types of benefits the participants receive from the program?
- Now I want to ask you about Duke Energy's ratepayers who are ultimately responsible for funding the Pilot Program. What are the benefits that the program provides to all of Duke Energy's northern Kentucky ratepayers?
- Do you think the cost and efforts associated with the Pilot Program justify the results achieved? Why do you say this?

Lastly, I would like to ask your opinion about program accomplishments that can be improved upon in future programs and about other added accomplishments that you think should be built into future programs. What are the kinds of things that you think program management should consider, or things that can be accomplished in a future version of this program?

- First, are there objectives that the program perhaps could have accomplished but for some reason was unable to fully achieve at the level expected? What are these? What can be done to more fully accomplish these in the future?

- 1.
- 2.
- 3.

- And, are there things that could be accomplished in future programs, that were not a part of the past Pilot Program's objectives? What are these and how can they be incorporated into future program?

- 1.
- 2.
- 3.

Appendix B: Participant Survey Instrument

A participant survey was completed in the previous evaluation of the Payment Plus Pilot Program. The results of which can be found in the following report:

An Evaluation of the Payment Plus Pilot Program: Results of a Process, Energy Consumption and Arrearage Effects Evaluation

Dated August 2004.

The questions below come from the Phase 2 survey. The original survey had 88 questions, and this shortened survey preserves 33 of those questions. The questions below require mostly short, scaled replies from the interviewee, and not all questions will be asked of all participants. This interview should take approximately 5 to 10 minutes, depending on the level of participation the customer experienced. The numbering of the questions are left as they were in the original survey to aid in the survey comparison effort.

Payment Plus Pilot Program

Participant Survey

Contact Module
SURVEY INTRODUCTION

If Payment Plus Pilot Program participant, and have completed one or more training sessions, then contact for survey. Use seven attempts at different times of the day and different days before dropping from contact list. Call times are from 10:00 a.m. to 8:00 p.m. EST or 9-7 CST Monday through Saturday. No calls on Sunday. (Sample size N =25)

SURVEY

Introduction

Note: Only read words in bold type.

Hello, my name is _____ . I am calling on behalf of Duke Energy to conduct a customer survey about the Payment Plus Program. May I speak with _____ please?

If person talking, proceed. If person is called to the phone reintroduce.

If not home, ask when would be a good time to call and schedule the call-back:

- | | | | |
|--------------|--------------|-------------|--|
| Call back 1: | Date: _____, | Time: _____ | <input type="checkbox"/> AM or <input type="checkbox"/> PM |
| Call back 2: | Date: _____, | Time: _____ | <input type="checkbox"/> AM or <input type="checkbox"/> PM |
| Call back 3: | Date: _____, | Time: _____ | <input type="checkbox"/> AM or <input type="checkbox"/> PM |
| Call back 4: | Date: _____, | Time: _____ | <input type="checkbox"/> AM or <input type="checkbox"/> PM |
| Call back 5: | Date: _____, | Time: _____ | <input type="checkbox"/> AM or <input type="checkbox"/> PM |
| Call back 6: | Date: _____, | Time: _____ | <input type="checkbox"/> AM or <input type="checkbox"/> PM |
| Call back 7: | Date: _____, | Time: _____ | <input type="checkbox"/> AM or <input type="checkbox"/> PM |
- Contact dropped after seventh attempt.

We are conducting this survey to obtain your opinions about the Payment Plus Program. We are not selling anything. The survey will take about 5-10 minutes and your answers will be confidential, and will help us to make improvements to the program to better serve others. May we begin the survey?

Note: If this is not a good time, ask if there is a better time to schedule a callback.

1. Do you recall participating in the Payment Plus Program?

- 1. Yes, *begin* → *Skip to Q3.*
- 2. No,
- 99. DK/NS

2. This program was provided through Northern Kentucky Community Action Commission. In this program, you took part in one or two training sessions on how to save energy and budget for household expenses. In exchange for attending these sessions, Duke Energy provided bill credits of \$200 for the energy conservation session, and \$150 for the household budgeting session. In addition, you may have had your home weatherized through the Duke Energy Weatherization Program, if so, another credit of \$150 was applied to your account for a total of \$500 in credits.

Do you remember participating in this program?

- 1. Yes, *begin* → *Go to Q3.*
- 2. No,
- 99. DK/NS

If No or DK/NS terminate interview and go to next participant.

2. What was the main reason you choose to participate in the Payment Plus Program? (do not read list, place a "1" next to the response that matches best)

- 1. ___ To receive the bill credits on my arrearage or past-due debt
- 2. ___ To help pay my current monthly utility bills (not arrearage or past-due debt)
- 3. ___ To avoid having my power shut-off
- 4. ___ To receive Crisis program money or help with my utility bills
- 5. ___ Friends/neighbors/family encouraged me
- 6. ___ To obtain weatherization services or home repairs – improve efficiency
- 7. ___ To make home more comfortable
- 8. ___ To find ways to reduce my utility bills
- 9. ___ To save energy in my home
- 10. ___ To learn how to budget or make ends meet

11. ____ Other (*fill in*)

99. ____ Don't know/don't remember/not sure (DK/NS)

If multiple responses: 4.a. **Were there any other reasons?** (number responses above in the order they are provided - Repeat until 'no' response.)

9. Were you aware that the credits offered through the program would be applied to only your past-due debt?

1. Yes 2. No 99. DK/NS

If No, 9a. Please tell me how you thought the credits would be paid.

10. Did you have any problems or issues with getting the credits applied to your bill?

1. Yes 2. No 99. DK/NS

If Yes, 10a. Please explain the problem.

Energy Education Training Session

I would now like to ask about your satisfaction with the Energy Education training session. I will read a list of items, after I read each item please tell me how satisfied you are with that item. Please indicate on a 0 to 10 scale with a 10 meaning you are very satisfied and a 0 to mean you are very dissatisfied.

How satisfied are you with...

18. The convenience of attending the Energy training sessions?

_____ Score

If 7 or less, How could this be improved? _____

19. The knowledge of the Energy Education instructor?

_____ Score

If 7 or less, How could this be improved? _____

20. The presentation skills of the Energy Education instructor?

_____ Score

If 7 or less, How could this be improved? _____

21. The comprehensiveness of the subjects covered?

_____ Score

If 7 or less, How could this be improved? _____

22. The materials and information handed out at the session?

_____ Score

If 7 or less, How could this be improved? _____

24. How about the amount of time for the Energy Education session, was it ...

- 1) Too long,
- 2) About right, or
- 3) Too short?

26. If you could change one thing about this session, what would that be?

Response:1 _____

Anything else? *If no, go to Q27.*

Response:2 _____

29. What actions, if any, have you taken in your home to save energy and reduce utility bills as a result of what you learned in this program?

Response:1 _____

Response:2 _____

Response:3 _____

Response:4 _____

Household Budgeting training session – *if didn't participate, skip to Q44.*

I would now like to ask about your satisfaction with the budgeting training session. I will read a list of items, after I read each item please tell me how satisfied you are with that item. Please indicate on a 0 to 10 scale with a 10 meaning you are very satisfied with that item and a 0 to mean you are very dissatisfied.

How satisfied are you with...

30. The convenience of attending the budgeting session? _____ Score

If 7 or less, How could this be improved? _____

31. The knowledge of the budgeting instructor? _____ Score

If 7 or less, How could this be improved? _____

32. The presentation skills of the budgeting instructor? _____ Score

If 7 or less, How could this be improved? _____

33. The comprehensiveness of the subjects covered? _____ Score

If 7 or less, How could this be improved? _____

34. The materials and information handed out at the session? _____ Score

If 7 or less, How could this be improved? _____

36. How about the amount of time for the budgeting session, was it ...

- 1) Too long,
- 2) About right, or
- 3) Too short?

38. If you could change one thing about this session, what would that be?

Response:1 _____

Anything else? If no, go to Q39.

Response:2 _____

41. What actions, if any, have you taken in your home to better manage your household budget as a result of what you learned in this program?

Response:1 _____

Response:2 _____

Response:3 _____

Response:4 _____

Skip to Q46.

44. **Our records indicate that you chose not to participate in the Budgeting session that was offered with this program. What were the main reasons why you did not attend this session?** *Do not read list, check those that apply and fill in open-ended response as appropriate.*

- 1) Privacy issues – did not want to share financial circumstances
- 2) Forgot
- 3) Don't have enough money to budget, owe a lot anyway
- 4) Not interested in budgeting, don't care
- 5) Didn't have good records of finances/budgeting
- 6) Didn't think I would learn anything new, already know this material
- 7) Have already attended other budgeting classes
- 8) Could not make the training session due to:

9) Other:

99) DK/NS

45. **What do you think the program can do to increase people's interest in attending the budgeting sessions?**

Response:1 _____

Response:2 _____

Response:3 _____

Response:4 _____

Weatherization – *if didn't participate, skip to Q58. If not yet completed...skip to Q55*

Next I want to ask you about your satisfaction with the weatherization service that inspected your home and installed items that made your home more energy efficient. I will read a list of several items, after I read each item please tell me how satisfied you are with that item. Please indicate on a 0 to 10 scale with a 10 meaning you are very satisfied with that item and a 0 to mean you are very dissatisfied.

How Satisfied are you with...

46. The ease of scheduling the energy examination of your home? _____ Score
If 7 or less, How could this be improved? _____

47. The convenience of scheduling the installation of the weatherization measures? _____ Score
If 7 or less, How could this be improved? _____

48. The quality of the measures installed in your home? _____ Score
If 7 or less, How could this be improved? _____

49. The information provided by the weatherization staff about what was installed in your home? _____ Score
If 7 or less, How could this be improved? _____

50. The Weatherization services overall? _____ Score
If 7 or less, How could this be improved? _____

58. Our records indicate that you chose not to receive the weatherization services offered through this program. What were the main reasons why you did not want these services?

- 1) Privacy issues – did not want anyone in home
 - 2) House is already energy efficient, service not needed
 - 3) Not interested in weatherizing home, don't care
 - 4) I didn't send or forgot to send forms to the landlord
 - 5) Landlord did not want the service or did not return the forms
 - 6) Could not contact my landlord to get approval
 - 7) Don't own the house, not my responsibility
 - 8) Other: _____
- _____
- _____

99. DK/NS

Overall Program Satisfaction

I would now like to ask about your satisfaction with certain aspects of the Payment Plus Pilot Program. I will read a list of items, after I read each item please tell me how satisfied you are using a 0 to 10 scale with a 10 meaning you are very satisfied and a 0 meaning you are very dissatisfied.

How satisfied are you with...

60. ...The application process and the ease of filling out the application forms?

_____ Score

If 7 or less, How could this be improved? _____

61. ...The interactions and communications you had with the program staff during the application process?

_____ Score

If 7 or less, How could this be improved? _____

63. And, overall how satisfied are you with the program?

_____ Score

If 7 or less, How could this be improved? _____

66. What additional services would you like the program to provide that it does not now provide?

Response: _____

67. Are there any other things that you would like to see changed about the program?

Response: _____

Attorney General First Set Data Requests
Duke Energy Kentucky Case No. 2007-00369
Date Received: December 27, 2007
Response Due Date: January 16, 2008

AG-DR-01-030

REQUEST:

Please reference the Application at page 19. Describe in detail the differences between the Payment Plus program and the Company Residential Conservation and Energy Education program.

RESPONSE:

The Payment Plus Program primarily provides the energy education workshop and the financial management workshop described in the filing. The Residential Conservation and Energy Educations Program (RCEE) works as a sub-component of the program and not independently. The energy education aspects of each are different in the detail of information and in the focus. The RCEE education is for the home while the Payment Plus program provides more detail on energy management and habits. The weatherization portion of Payment Plus is actually a referral to the Weatherization program.

PERSON RESPONSIBLE: Michael Goldenberg
Kathy Schroder

Attorney General First Set Data Requests
Duke Energy Kentucky Case No. 2007-00369
Date Received: December 27, 2007
Response Due Date: January 16, 2008

AG-DR-01-031

REQUEST:

Please reference the Application at page 19. Describe in detail how the Payment Plus is coordinated with other weatherization programs offered to low income customers (i.e., Federal Weatherization Assistance Program, etc.).

- (a) Does the company believe that, given the availability of other programs offering the same or similar services, it needs to offer these services? If so, why?

RESPONSE:

All customers receiving Payment Plus classes must be enrolled in the utility weatherization program. Applications are taken at the first energy education class. Once a customer receives weatherization through the utility program, the customer is then referred to the State HWAP program. The application for the State HWAP services also takes place at the time of the first energy education program as the contractor for the Payment Plus program is the same as the State HWAP provider, Northern Kentucky Community Action Commission. Customers are instructed on both programs at the same time.

- (a) Yes. Duke Energy believes it should provide these services as they have shown energy savings and changes in short term energy use behavior over time, as is evidenced in the impact and process evaluation reviews for the program.

PERSON RESPONSIBLE: Michael Goldenberg
Kathy Schroder
Richard Morgan

**Attorney General First Set Data Requests
Duke Energy Kentucky Case No. 2007-00369
Date Received: December 27, 2007
Response Due Date: January 16, 2008**

AG-DR-01-032

REQUEST:

Please reference the Application at page 19. Does the company believe that the Payment Plus Program duplicates services offered under other programs? (i.e., Residential Conservation and Energy Education Program, Federal Weatherization Assistance Program) If not, why?

- (a) How do the programs differ?
- (b) State the Company's rationale for continuing this program.

RESPONSE:

Payment Plus program does not duplicate other programs offered to low income customers.

- (a) Payment Plus consists of 2 classroom training sessions; one 3 hour energy education class, one 3 hour financial management training class and in home weatherization services based on usage by sq. ft. of the home and 12 months of energy usage to determine Tier level (see RCEE description)
- (b) This program has shown by independent evaluation that there are bill payment improvements over time and also the Residential Collaborative Work Team by consensus has voted to continue this program. The Kentucky PSC has approved this program through 2009.

PERSON RESPONSIBLE: Michael Goldenberg
Kathy Schroder
Richard Morgan

**Attorney General First Set Data Requests
Duke Energy Kentucky Case No. 2007-00369
Date Received: December 27, 2007
Response Due Date: January 16, 2008**

AG-DR-01-033

REQUEST:

Does the company collect information on property addresses provided with weatherization services under the Payment Plus Program?

- (a) If so, is there any policy to ensure that such addresses are not provided s such services multiple times?
- (b) If so, please state the policy.

RESPONSE:

The Company's Implementation Contractor gathers housing characteristics at the time of application and initial inspection of the property.

- (a) Through the Duke Energy billing system (CMS) there is a code assigned electronically to all customer addresses receiving weatherization services.
- (b) The CMS codes for weatherization services were developed by the Duke Energy IT Department and only authorized individuals can assign these codes to customer accounts.

PERSON RESPONSIBLE: Michael Goldenberg
Kathy Schroder
Richard Morgan

**Attorney General First Set Data Requests
Duke Energy Kentucky Case No. 2007-00369
Date Received: December 27, 2007
Response Due Date: January 16, 2008**

AG-DR-01-034

REQUEST:

Please describe the type of educational materials and/or information furnished to customers participating in the Payment Plus Program. Provide copies of all materials furnished to participants.

RESPONSE:

The Payment Plus education materials are provided at Attachment AG-DR-01-034.

PERSON RESPONSIBLE: Michael Goldenberg
Kathy Schroder
Richard Morgan

Analyzing the Importance of Money Management

PART 1

BUDGET



THIS NOTE IS LEGAL TENDER FOR ALL DEBTS, PUBLIC AND PRIVATE
Treasurer of the United States
SERIES 1996

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Treasurer of the United States
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Budget

"Though usually overlooked, setting up a good personal budget is the first step to any money management activity. Without it, you cannot control your finances and will always fall short of your goals."

--Mark J. Randall, Certified Financial Planner

What type of Spender are you?

- Saver
- Conservative
- Happy-go-lucky
- Impulsive
- Denier
- Struggler

What is a Spending Plan?

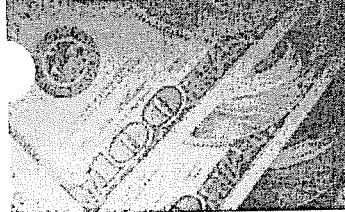
- A Spending Plan is a day to day, weekly, or monthly estimate, often itemized, plan of expected income and expenses for a given period of time.

- You might also know it as a **BUDGET!**

(Source: Dictionary.com)

Reasons for a Spending Plan

- Know where your money is going
- Know how much money you have left
- Not spending more than you make
- Organization
- Control of your life
- Communication
- Timely Payments
- Eliminating debt and loan balances
- Increase savings for emergencies
- Additional money for activities
- Increase your spending power
- Increase your wealth



Benefits or Outcomes Of Having A Spending Plan

- Reduce money-related anxiety
- Help prepare for large expenses
- Help avoid the temptation to make major purchases on credit
- Identify what items are costing too much
- Encourage Savings
- Prepare for the purchase of a home
- Help ensure successful homeownership
- Establish good spending habits
- Control of your financial situation



Three Parts of Money Management

1. Set Budgetary Priorities
2. Establish A Plan
3. Follow The Plan

Why Set Budgetary Priorities?


- To meet your financial goal or goals
- Identify Needs vs. Wants
- Example of Needs vs. Wants:
 - **Need:** You need a place to live (shelter).
 - **Want:** You want a 4 or 5 bedroom brick home with a two car garage, an office, hard wood flooring, basement, and an outdoor grill with an in-ground swimming pool.

Needs vs. Want Activity

Fold a sheet of paper or an 8 x 10 note card in half vertically. Take 5 to 10 minutes to write 10 needs on one half and 10 wants on the other. When you have finished your list, have a 5 minute class discussion as to what each of you felt were needs and wants. The list will vary due to individual needs!

The Steps of Establishing A Spending Plan

- **First Step**
 - Identify your Net Income
- **Second Step**
 - List the amounts of Monthly Expenses
- **Third Step**
 - List the amounts of Fixed Expenses
- **Fourth Step**
 - List the amounts of Flexible Expenses
- **Fifth Step**
 - List the amounts of Periodic Expenses
- **Sixth Step**
 - List the amounts of Indebtedness Expenses
- **Final Step**
 - Finalize your Spending Plan



How to Track Your Monthly Spending?

- The Envelope Method
- The Budget Box System
- Computer System



Recordkeeping Tips For Your Spending Plan


- Use simple math
- Keep a notebook
- Have information in a safe place
- Organize your files
- Keep all records
- Pay your bills on time
- Write down **EVERYTHING!!!**

Spending Plan vs. Spending Goals

- Involve friends and family
- A plan fitting your lifestyle to achieve your goal(s)
- Determine what goal(s) are important
- Plan how long it will take to achieve your goal(s)

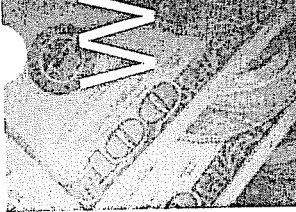
Ways to Cut Down Expenses

- Refinance the interest rates on your credit cards, car loan, or home loan.
- Eat out less
- Take lunch to work
- Clip coupons
- Have your utilities on the budget plan
- Use less electricity
- Get rid of your landline if you have a cellular phone
- Carpool
- Grocery list
- Buy groceries in bulk when necessary



Building The Spending Plan

- Track spending
- Find out what works and what does not work
- Do not get frustrated, have an open mind



Ways to Make Money Management Easier

- Plan according to what your income is now
- Plan ahead
- Include spending money for each family member
- Decide who pays the bills
- Know when bills are due
- Open a checking account for the bills
- Open a savings account for unexpected expenses
- Consolidate credit card accounts
- Stick to your spending plan
- Change your spending plan if it is not working

Controlling Day-to-Day Spending

- Carry a written reminder of the goal(s)
- Carry only a little cash
- Avoid ATM Machines
- Leave your credit card at home
- Use direct deposit
- Use layaway
- Buy only what you need
- Pay with cash, check or debit card
- Do not shop for fun



Reviewing Your Spending Plan

Ask yourself, friends, or family these questions:

- Is this spending plan working?
- Are you and/or the family able to follow the spending plan?
- Which costs put you and/or the family over the spending limit?
- Are you and/or your family getting closer to reaching your goal(s)?

Saving Tips

- Have some of your paycheck direct deposited into savings or have the bank automatically transfer money into your savings
- Use checking-account vs. check-cashing store
- Save extra money from overtime pay, bonuses or raises
- Make the loan payments that you have paid-off to yourself
- Save cash gifts
- Put all or some of your tax refund into a savings account
- Avoid debt that does not help build long-term financial security
- Save your change
- Use a retirement plan

Remember...

Regardless of your financial situation, you need to realize that it took time for you to get into debt and it will take your time to get out of debt. Building your wealth does not happen overnight. You will need to acquire the skills and understanding of financial goals and barriers that will make you a savvy financial manager.

Do not let the money manage you, you manage the money!

Analyzing the Importance of Money Management

PART 2

CREDIT

What is CREDIT?

- Credit is the provision of money, goods, or services with the expectation of future payment.

(Source: Merriam Webster Online)

Consumer Credit

- This is credit used by individuals or families for personal needs. It is based on the company's trust in the individual that they will pay it back when it is due.

- Consumer credit consists of:
 - Credit cards
 - Mortgages
 - Car loans
 - Personal loans

Importance of Good Credit

- Able to purchase items you need or want
- Rent or buy a house
- Able to borrow at a lower rate so you save money
- Getting a job that deals with money
- Opening a checking account
- Establishing utility services
- Obtain Insurance at a lower rate

Creditworthiness

The Three C's of Creditworthiness
consist of:

1. Capital
2. Capacity
3. Character

Types of Credit Accounts

- Retail Credit
- Installment Credit
- Open Charge Credit
- Revolving Credit
- Service Credit
- Cash Credit
- Credit Cards
- Mortgage Credit

Credit of Today

In Kentucky:

- Average of 3.5 credit cards per person.
- 49.9% have 2 or more credit cards.
- 11.1% have 10 or more credit cards.
- 13.2% are using half of their credit.

Credit Bureau

- Also referred to as a ***Credit Reporting Agency***
- These are companies that collect information and sell it to creditors or individuals who want to know how you manage your financial responsibilities.

Three Major Credit Bureaus

1. Experian
2. TransUnion
3. Equifax

Credit Report

A credit report is a summary of your financial responsibilities and reliabilities. It is the history of paying your debts.

(Source: FDIC.gov)

Error

An error occurred while processing this page. See the system log for more details.

What is in your Credit Report?

Four components:

1. Information containing your identity
2. Public Record Information
3. Credit History Information
4. Inquiries

Types of Credit Reports

- Consumer Credit Report
- In-File Credit Report
- Residential Mortgage Credit Report

FICO

- FICO is *Fair, Isaac and Company*. This is a company that calculates your credit report and it gives you a credit score.
- The score ranges between 300 to 850.
- Credit scores come with reason codes.
- The higher the score(s), the more likely you are to receive a lower interest rate or more money to be used for your purchase.

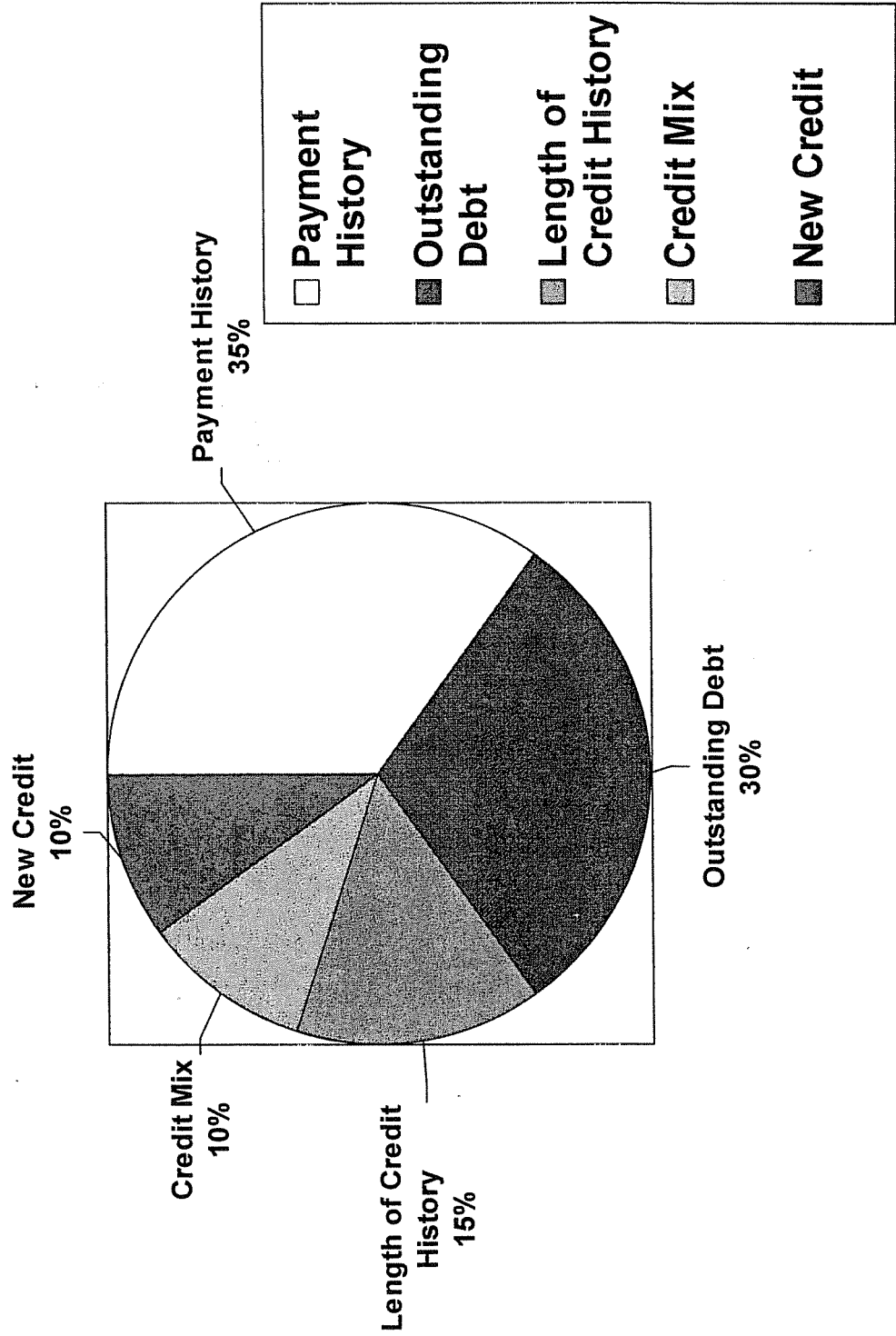
Credit Scores

- Credit Scores or “FICO Scores” are number grades that are attached to your credit report. The data in the credit report is what determines the credit score.
- This is another deciding factor as to whether you are credit worthy.

Where are your Scores Used?

- Car Loans
- Home Loans
- Home Equity Loans
- Credit Cards
- Cellular Phones
- Personal Loans

Characteristics of the Credit Score



Payment History

- Counts for 35% of your credit score
- The payment history section consists of:
 - What have you done in the past and in the present?
 - Have you paid your bills on time?
 - How many times have you been delinquent on an account(s)?
 - How severe were the delinquencies---30, 60, 90 days or longer?

Outstanding Debt

- Counts for 30% of your score
- The outstanding debt section consists of:
 - The total amount that is owed.
 - The more money you owe, the more likely you will skip payments or make late payments.
 - The number of amounts that are in proportion to the balance of your credit limit or loan amount.
 - Your total credit card balance should be no more than 40% of the total amount owed or the total credit available.

Length of Credit History

- Counts for 15% of your score
- The length of credit history consists of:
 - Length of time the accounts have been established.
 - How long has it been since you used the accounts?

New Credit

- Counts for 10% of your score
- New Credit consist of:
 - The number of accounts that you have opened in the last 12 months.
 - The number of inquiries that have happened in the past 12 months when searching for credit.
 - In any 14 day period, multiple mortgage and auto loan inquiries are treated as a single inquiry. The inquiries will not affect the score while they are shopping if the consumer finds a loan within 30 days.

Credit Mix

- Counts for 10% of your score
- Credit mix consists of:
 - What types of credit you have. (revolving credit, installment loans, major credit cards, or finance companies)
 - How many trade lines have been reported?

What Impacts Your Credit Score?

- Divorces
- Marriages
- Not using your full legal name on accounts
- Foreclosure
- Default on Mortgage
- Default on Student Loan Payments
- Derogatory Information
 - Bankruptcies
 - Suits and Judgments
 - Tax Liens
 - Collections
 - Charge-offs
 - Profits and Loss
- Too many inquiries
- Late payments
- Inaccurate information
- Credit Mixture
- Outstanding Debt
- Payment History
- New Credit
- Canceling of Credit Cards
- Medical Bills
- Not paying the minimum payments
- Keeping Debt Levels Too High
- Owning Too many Credit Cards

Timeframe For Information on the Credit Report

Derogatory information has a time limit:

- **Bankruptcies**-10 years from the date of entry of the order of relief
- **Judgments and suits**- Seven years from the date of entry or when the statute of limitations expires
- **Tax Liens**- Seven years from the date of payment
- **Collections, Charge-Offs, and Profit and Loss**- Seven years from the date of collection, charge off or profit and loss
- **Other delinquent information**- Seven years from the date of delinquent action
- **Inquiries**- Two years for the date of entry

What is NOT in the Credit Report or Credit Score?

These items are not listed in your credit report or credit score:

- Checking or savings account information
- Brokerage Accounts
- Medical History
- Race
- Sex
- Age
- Religion
- National Origin
- Driving Record

Checking for Credit Errors

- When you get your credit report and feel that something is not right in it, make sure you check for any inaccurate information.
- 79% of credit reports have errors of which 25% are serious enough to cause credit denial.

(Source: NeighborWorks—Credit Counseling For Maximum Results Training)