SURREBUTTAL TESTIMONY

OF

BARBARA MEISENHEIMER

CASE NO. GR-2004-0209

MISSOURI GAS ENERGY

I. INTRODUCTION

Q. **PLEASE STATE YOUR NAME, TITLE, AND BUSINESS ADDRESS.**

A. Barbara A. Meisenheimer, Chief Utility Economist, Office of the Public Counsel, P. O. 2230, Jefferson City, Missouri 65102.

Q. **PLEASE SUMMARIZE YOUR EDUCATIONAL AND EMPLOYMENT BACKGROUND.**

A. I hold a Bachelor of Science degree in Mathematics from the University of Missouri-Columbia (UMC) and have completed the comprehensive exams for a Ph.D. in Economics from the same institution. My two fields of study are Quantitative Economics and Industrial Organization. My outside field of study is Statistics. I have taught Economics courses for the following institutions: University of Missouri-Columbia, William Woods University, and Lincoln University. I have taught courses at both the undergraduate and graduate levels.

Q. **HAVE YOU TESTIFIED PREVIOUSLY IN THIS CASE?**

A. Yes, I filed direct testimony on revenue requirement issues on April 15, 2004 and rate design issues on April 22, 2004. I also filed rebuttal testimony on May 24, 2004.

Q. **WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

A. The purpose of my testimony is to respond to portions of the rebuttal testimony of Michael Noack and F. Jay Cummings filed on behalf of Missouri Gas Energy (MGE), the testimony of Robert Jackson on behalf of the City of Kansas City and the testimonies of Dan Beck and Anne Ross filed on behalf of the Missouri Public Service Commission Staff (Staff).

II. LOW-INCOME BILL DISCOUNT PROGRAM

Q. **WHAT ARE YOUR COMMENTS ON MS. ROSS'S CRITICISMS OF YOUR DIRECT TESTIMONY?**

A. My general impression is that Ms. Ross seemed so geared toward identifying anything she could possibly label as a mistake that she failed to understand the thrust of my direct testimony, failed to correct and adjust her own proposal to reflect accurate information and reasonable modifications and ultimately failed to propose an program that has a reasonable expectation to assist low-income customers reach a level that improves their ability to afford their natural gas bills.

Q. **WHAT ARE THE SPECIFIC CALCULATIONS IN YOUR DIRECT TESTIMONY THAT MS. ROSS CRITICIZES?**

A. She criticizes are that the usage I use is too low, that I have not included excise taxes in the calculations and that I do not use LIHEAP assistance as an offset.

Q. **PLEASE RESPOND TO THE CRITICISM OF YOUR ESTIMATED USAGE.**

A. First it is important to understand why the usage factor I use in my calculations is not too low and why mine is more appropriate than Ms. Ross's usage calculations. Natural gas use by low-income consumers is typically less than that of consumers with average and higher incomes. Primarily, lower use by low-income consumers is due to smaller living spaces. The usage level included in my calculations reflects that low-income consumers have lower than average use consistent with that reported by the Energy Information Administration of the Department Of Energy. The Department Energy 2001 data suggests that energy assistance eligible households use 9% less than average use and those below poverty use 20% less. The same data for 1997 indicates that energy assistance eligible households use 11% less than average use and those below poverty use 17% less. The normalized average residential usage for the Joplin area for November through March developed in Schedule 5 of the direct testimony of Staff witness James Gray is 573 Ccfs. Company witness Jay Cummings workpapers identify an average 5-month use of 561. I used 499 as an estimate of low-income average winter use, which represents 89%-87% of the average, normalized, residential customer usage identified in the Staff and Company workpapers. Therefore, I believe my usage estimate is fully consistent with the ranges identified by The Department Of Energy data and is reasonable to use in determining the appropriate bill credits. Table 1 summarizes this comparison;

Table 1

2001 Low-income% of Average*		
	Federal Assistance	Below Poverty
Consumption	91%	80%
Expenditures	91%	81%
1997 Low-income% of Average*		
	Federal Assistance	Below Poverty
Consumption	89%	83%
Expenditures	91%	82%
	499 Ccfs % of Average	
Staff**	573	87%
Company***	561	89%

*Source Energy Information Administration Department Of Energy
**Source Schedule 5 of the Direct Testimony of James Gray
***Source Workpapers of Dr. Jay Cummings

Q. **DOES WITNESS ROSS MAKE A NUMBER OF QUESTIONABLE ASSUMPTIONS IN HER OWN CALCULATIONS**

A. Yes, despite the criticism of my testimony, Ms. Ross's workpapers demonstrate that she makes a number of questionable assumptions in her own calculations. First, she selects a single winter heating season November 2002 through March 2003 for which she uses usage data that is not adjusted for normal weather. Both the Staff witness Dennis Patterson and Company witness Jay Cummings recognize colder than normal weather for 4 out of 5 months usage during the same period November 2002 through March 2003 for Joplin. As a result Ms. Ross's estimated usage is higher than it should likely be.

Ms. Ross's workpapers demonstrate that she used 600 Ccfs in performing her calculation, a higher level that the average program participant usage of 588 Ccfs that she calculates for November 2002 through March 2003 for Joplin. This results in a further inflation of her estimates of use.

In all fairness, based on a review of her workpapers, I believe there is an offsetting adjustment, although the reason she included it is unclear. For one of the tables in her calculations, she claims to have calculated 4% and 2% respectively of income in order to estimate an affordable customer burden. See, lines 29 through 35 of Schedule 1, pages 1-2. In reviewing the worksheet cell formulas, I found that each includes a factor that reduces the result to only 80% of the 4% and 2% amounts. In other words, instead of calculating a 4% and 2% burden, her calculations actually produce an amount equal to only 3.2% and 1.6% respectively.

Q. PLEASE RESPOND TO THE CRITICISM OF OMITTING EXCISE TAXES IN YOUR CALCULATIONS.

A. I have no objection to making this adjustment explicitly in my calculations although this is the first indication I have had, despite numerous discussions with Staff regarding bill discount calculations, that Staff views this as critical to developing bill discounts. I have rerun my analysis assuming a 5% excise tax. As I expected, it made no difference in determining which threshold income levels would reach an affordable bill level up to and including incomes of 125% of the Federal Poverty Level. Therefore, it has no affect on my recommended bill discount levels.

Q. **PLEASE RESPOND TO THE CRITICISM THAT YOUR ANALYSIS DOES NOT ADJUST FOR RECEIPTS OF ENERGY ASSISTANCE.**

A. My analysis intentionally does not explicitly include receipt of LIHEAP for a number of reasons. That is not to say that I did not consider LIHEAP support in contributing to the overall ability of my proposal to make natural gas bills affordable.

Q. **PLEASE EXPLAIN.**

A. In case GR-2001-2002, Roger Colton testifying on behalf of Public Counsel adeptly described the reasons that the actual bill credit level should not be treated as an explicit adjustment in calculating the bill credit amounts. Some of those reasons are relevant to the current program proposals for 5-month bill credits. For example, a customer may enroll in the bill credit program during periods when LIHEAP enrollment is closed. If a customer enrolls in the program in January, LIHEAP will likely not be available. Second, as Mr. Colton points out uncertainties in the federal budget process cause state LIHEAP offices not know in advance how much money they will have to distribute in any given year or where their income eligibility limits will be set based on the funding they will receive. I believe that counting on LIHEAP receipts to make bills affordable, as the Staff's analysis does, would not provide adequate assurance that the bill discount levels will be sufficient.

Q. **DID YOU CONSIDER LIHEAP?**

A. Although, for the reasons listed above, I did not use LIHEAP as an explicit offset, I did consider LIHEAP support in contributing to the overall ability of my proposal to make natural gas bills affordable. I do anticipate that many program participants will receive LIHEAP and this will act to increase affordability in a number of ways. First, my calculations of affordability, like Staff's, are calculated for only the uppermost income level in any particular bracket. To the extent that consumers incomes are within a bracket but do not achieve the uppermost bound, my proposal provides some added assurance that bills will be affordable.

Another way in which receipt of LIHEAP may enhance affordability is that customers will have some cushion in the case of higher bills due to higher use, higher gas prices or both. With respect to arrearages, my proposal does not require the Company to absorb losses associated with writing off arrearages which I have been advised may not be allowable. Nor does it set aside specific funds to pay off customer arrearages which may prove administratively problematic and may potentially be viewed as unfair by those who have struggled to pay off what they previously owed to the Company while customers at like income levels are absolved of the responsibility. Instead, to the extent that a customer receives LIHEAP, it will reduce the burden to the customer of making the $5-$30 arrearage payments that I recommended as a requirement of the program.

Q. **DO YOU VIEW THE STAFF'S PROPOSAL AS ADEQUATE IN ACHIEVING AN AFFORDABLE NATURAL GAS BURDEN?**

A. No, I do not. When considering the various aspects of Staff's proposal together with errors in the Staff's calculations, I seriously doubt that the Staff's proposal can be relied upon to achieve affordable bills for low-income customers.

Q. **PLEASE IDENTIFY THE ERRORS YOU FOUND IN THE STAFF'S CALCULATIONS OF AFFORDABILITY.**

A. On line 9 of Schedule 1, pages 1-2, Ms. Ross's calculations are based on a PGA rate of $.5413 when in fact the correct current PGA rate for MGE is $.75056 as reported on page 28, line 1, of MGE witness Dr. Cummings's direct testimony. The result is that Ms. Ross evaluated the affordability of the Staff's recommended discounts based on a roughly 30% under-estimation of gas costs. This is a critical error because gas cost constitutes the lion's share of a customer's natural gas bill.

Q. **PLEASE DESCRIBE THE ASSUMPTIONS IN STAFF'S PROPOSAL THAT YOU BELIEVE ARE QUESTIONABLE.**

A. The Staff's evaluation of its proposed discounts in achieving an affordable bill is premised on a number of questionable assumptions. Three significant assumptions that I have discussed previously are 1) the error in reporting gas cost on the average bill 2) an excessive reliance on LIHEAP in attempting to demonstrate affordability; and 3) shifting a portion of arrearage repayment to arrearage forgiveness that is to be covered by the Company.

In addition, there are two additional assumptions that I believe are questionable with respect to the Staff's proposed discount levels. The first is that although in past collaborative meetings the Staff has expressed a concern about gas bills increasing with increased household sizes, the Staff's analysis does not adjust for this; while my analysis does. The second is that the Staff has reflected no customer payment toward arrearages despite appearing to make some level of repayment a mandatory component of program participation. The cushion my calculations provide by not explicitly using LIHEAP as an offset mitigates the potential impact of arrearage repayment on affordability.

Q. **WHAT LEADS YOU TO BELIEVE THAT THE STAFF PROPOSES AT LEAST A MINIMUM LEVEL OF ARREARAGE REPAYMENT BY CUSTOMERS?**

A. On page 11, lines 14-16, of her direct testimony, Ms. Ross states "If the customer has an arrearage balance, these balances will be repaid at the rate of no more than $30 per month. The customer can make extra payments, if desired, but will not be required to do so." Further, on page 13, lines 20-21, in her direct testimony regarding program participants, she adds "Remember, they will also be asked to pay their bill, which includes the arrearage portion, fully, and on time." I acknowledge that in Staff's testimony Staff's proposal seems a bit different in rebuttal than in direct. In rebuttal, Ms. Ross states that Staff supports an arrearage matching or forgiveness and does not address minimum repayment.

Q. **WHAT IS THE SIGNIFICANT DEFICIENCY IN STAFF'S PROPOSAL?**

A. In general I believe the most significant deficiency of Staff's proposed discounts compared to those I have recommended on behalf of Public Counsel, can be illustrated when more challenging but realistic assumptions are made. For example, assume that colder weather does occur requiring a 5% increase in natural gas use and that customers have previously entered arrearage repayment agreements that reflect higher balances by the lowest income consumers. Schedule 2, pages 1-2, illustrates the assumptions and provides a comparison of my recommendation and Staff's under these conditions. The bottom line is that

Staff's proposed discounts are less able to ensure affordability under these conditions as shown in Table 2 below.

Table 2

OPC Recommendation- Resulting $ Shortfall or Excess of an Affordable Bill						
Poverty Level Range	Household Size					
	1	2	3	4	5	6
25%	$43	$41	$38	$62	$60	$58
50%	$18	$40	$62	$110	$132	$154
75%	$19	$65	$111	$183	$229	$274
100%	($30)	$40	$110	$207	$277	$346
125%	($48)	$46	$140	$260	$354	$448

Staff Recommendation- Resulting $ Shortfall or Excess of an Affordable Bill						
Poverty Level Range	Household Size					
	1	2	3	4	5	6
25%	(107)	(109)	(112)	(88)	(90)	(92)
50%	(57)	(35)	(13)	35	57	79
75%	(131)	(85)	(39)	33	79	124
100%	(55)	15	85	182	252	321
125%	(73)	21	115	235	329	423

Q. **DO YOU HAVE ANY OTHER COMMENTS ABOUT THE OTHER INFORMATION CONTAINED IN MS. ROSS'S REBUTTAL TESTIMONY?**

A. Yes. Despite acknowledging that expanding the program seems reasonable based on the excess funding produced by the previous program, Ms. Ross offers up concerns regarding program evaluation as the reason that Staff opposes sharing the benefits of the bill discount program with the customers in MGE's St. Joseph service area. I find the reasons she cites are unpersuasive. In fact, providing the program to the St. Joseph area is fully consistent with and would likely prove more valuable in enhancing program evaluation.

Q. **PLEASE EXPLAIN THE BASIS OF YOUR COMMENT.**

A. Ms. Ross's first reason for not expanding the program to St Joseph is that it would be useful to have bill-paying information that spanned more than two winters. She further states, "…any permanent program developed statewide will need to be designed with consideration of Missouri's range of winter weather." First, I would point out that additional bill-payment for more than two winters will be available for Joplin. Expanding the program would also begin the process of collecting bill-payment information for another area of the state.

With respect to her statement that "…any permanent program developed statewide will need to be designed with consideration of Missouri's range of winter weather," I am at a complete loss as to how adding St. Joseph to the experiment would not further this objective rather than hampering it.

Q. **WHAT IS ANOTHER REASON THE STAFF OBJECTS TO EXPANDING THE PROGRAM BENEFITS TO ST. JOSEPH'S LOW-INCOME HOUSEHOLDS?**

A. Ms Ross indicates that Staff is in the process of evaluating Roger Colton's report that evaluates the success of the initial Joplin program. She indicates that the Staff has found some areas that causes it to believe that the conclusions drawn from the study should be examined further.

Q. **DID YOU ATTEMPT TO ASCERTAIN THE EXTENT OF THE STAFF'S EVALUATION AND ANY CONCLUSIONS THE STAFF HAS REACHED?**

A. Yes, I did. In Data Request No 6, I requested that Staff describe each preliminary observation and/ or conclusion reached by Staff regarding the current data gathered on both participants and non-participant control groups in the current program. In response, I was directed only to Anne Ross's rebuttal testimony from page 8, line 12 through page 12-line 8. Further, in DR 7, I requested that the Staff provide and describe all supporting documentation for analysis that the Staff has conducted regarding the underlying data collected by MGE for evaluation of the program as described on page 8, lines 8 and 9 of Ms. Ross's rebuttal testimony. In response I was directed to the workpapers provided by Ms. Ross.

Q. IN THIS TESTIMONY, WILL YOU RESPOND TO THE BASIS FOR STAFF'S CONCERNS REGARDING MR. COLTON'S EVALUATION AND STAFF'S OBJECTION TO EXTENDING THE PROGRAM BENEFITS TO ST. JOSEPH AREA CUSTOMERS.

A. Yes, I will. The Staff's stated reasons for objecting to expanding the program are based on incorrect calculations, are not persuasive and provide additional support for adding St. Joseph to the program.

Q. PLEASE PROCEED.

A. On page 8, line 14, Ms. Ross provides an explanation of her first concern with the Colton study;

> One concern is the composition of the Energy Assistance (EA) control, or comparison, group. This group is composed of low-income customers who are eligible for federal energy assistance, but who do not receive the ELIR credit. As Mr. Colton states on p. 2 of his preliminary evaluation, the payment profiles of this group were compared to the profile of customers receiving the ELIR credits, "…in an effort to isolate the impacts of the ELIR credit." (Roger Colton, The Impact of Missouri Gas Energy's Experimental Low-Income Rate (ELIR) On Utility Bill Payments by Low-Income Customers: Preliminary Assessment, October 2003, pp. 2-3).
>
> According to the information provided to Staff, while all of the customers in the group are low-income households, approximately 80% of the households in the EA study group are located in

> MGE's Kansas City/St. Joseph service areas. The customers in the ELIR group all come from the Joplin area. Since differences in winter weather impact natural gas space-heating usage, and usage is the main determinant of a customer's bill, Staff believes that the failure to take this climatalogical difference into account when choosing control groups could lead to incorrect conclusions. The correct conclusions might even be reached, for the wrong reasons, which limits the value of the information. We not only want to look at what happens, but also at why the program is effective or ineffective.

I do not disagree that attempting to better match the control groups to those participating in the program might produce better comparisons. I find this unpersuasive as a reason to exclude St. Joseph. Including St. Joseph in the experiment would better balance climatologically the representation in the sample with that of the control groups. To properly consider the reasonableness of allowing St. Joseph's low-income households to participate in the experimental bill discount program, the difference in usage Ms. Ross reports for Joplin and for St Joseph on page 9 of her rebuttal testimony must be noted. Joplin has average usage of 789 Ccfs while customers in St. Joseph experience on average usage of 994 Ccfs. This constitutes over 25% higher use in St. Joseph than in Joplin. I believe this provides a clear example of how extending the program to include St. Joseph could truly assist low-income consumers in St. Joseph if they were allowed to participate.

Q. **ON PAGE 10, LINES 1 THROUGH 17, ALTHOUGH, SHE PROVIDES NO SPECIFIC EXAMPLES, MS. ROSS APPEARS CONCERNED THAT ROGER COLTON'S ELIR RESULTS FOR VARIOUS MEASURES OF PROGRAM PERFORMANCE ARE MEASURED AGAINST A CONTROL GROUP THAT INCLUDES CUSTOMERS FROM THE NORTHERN PORTION OF MGE'S SERVICE AREA. WOULDN'T ALLOWING ST. JOSEPH CUSTOMERS TO PARTICIPATE WORK TO PRODUCE A MORE COMPARABLE GROUP.**

A. Yes, it would.

Q. **ON PAGE 10. LINE 11 THROUGH PAGE 12 LINE 12, MS. ROSS DISCUSSES HER CONCERNS REGARDING COMPARISON OF MR. COLTON'S EA CONTROL GROUP WITH THE ELIR PARTICIPANTS. WHAT ARE YOUR COMMENTS ON THIS COMPARISON?**

A. Ms. Ross's calculation of the Joplin only EA sample does not provide the comparison that she claims. Both Ms. Ross on page 8 at line 15 of her rebuttal testimony and Mr. Colton on page 4 of his Report define the EA control group as including customers that do receive energy assistance, but do not receive an ELIR credit. On page 10, beginning at line 21, Ms. Ross claims that she "…re-ran two of Mr. Colton's analyses, using his method, but splitting the EA group into EA-Joplin, and EA-Kansas City/St. Joseph." In response to Data Requests # 4 and # 5, Ms. Ross provided the data files and calculations that underlie her comparison to Mr. Colton's study results. Based on my review of a sample of the underlying data, I found numerous examples of customers that did receive ELIR credits included in Ms. Ross sample of the EA group that supposedly excluded them based on the definition of an EA control group. In order to avoid disclosing confidential information, I have not provided the specific customer account IDs in this testimony; however, I will make those available to Ms. Ross in my workpapers. An example of the impact is that for January 2003, Ms. Ross underestimated average arrearages and underestimated the percentage of households in arrears for the EA group.

Q. **WHAT WEIGHT SHOULD BE GIVEN TO THE RESULTING EA-JOPLIN VERSUS ELIR-JOPLIN VERBAL AND GRAPHICAL COMPARISON PROVIDED ON PAGES 10 THROUGH 12 OF MS. ROSS'S REBUTTAL TESTIMONY?**

A. I do not believe it can be relied upon as a credible example that refutes Mr. Colton's Report or as evidence that the experimental rate discount should not be extended to the St. Joseph area.

Q. **WHAT WEIGHT SHOULD BE GIVING TO THE RESULTING EA-KANSAS CITY/ST. JOSEPH VERSUS ELIR-JOPLIN COMPARISON PROVIDED ON PAGES 10 THROUGH 12 OF MS. ROSS'S REBUTTAL TESTIMONY?**

A. Although I did not check each of Ms. Ross's calculations, it seems more likely that EA-Kansas City/St. Joseph versus ELIR-Joplin comparison may be valid since no customers in Kansas City or St. Joseph received the bill credit and thus would incorrectly reflect inclusion of ELIR recipients. In reviewing the graphical comparison of ELIR performance to the EA-Kansas City/St. Joseph groups, I would note that ELIR customers appear on average to roughly be half as likely to be in arrears and to owe on average roughly half as much during most months as illustrated in the charts on page 11 of Ms. Ross's testimony.

Q. **WHAT IS YOUR RESPONSE TO MS. ROSS'S CONCERNS REGARDING ATTRITION BETWEEN JUNE 2002, AND JANUARY 2004?**

A. My initial reaction is that re-reviewing the data from the previous program design will provide very little additional enlightenment on the rate of attrition. Instead, I believe that Ms. Ross's own testimony touched on two weaknesses of the program. The first is eliminating the requirement for acceptance of levelized billing and the second is to improve education and outreach. I also believe that two additional proposed modifications may prove beneficial in making bills affordable enough for continued participation. First, I propose to better target support based on greater disaggregation of the income brackets. I have proposed four discount levels rather than the two offered under the original program and the two offered by Staff's current proposal. Second, by increasing the funding levels to the lowest income brackets during the winter when highest use occurs, they should be less likely to be behind going into the summer months when dropping off the program and service disconnection generally poses a lesser detriment. I believe that allowing St. Joseph consumers to participate would actually offer more probative value in gauging program success. The additional benefit that St. Joseph customer participation would provide is that with higher use, the stakes are higher for St. Joseph's low-income households. I would find it interesting to see if St. Joseph low-income customers prove more likely to stay on the program.

Q. **ON PAGE 13, MS. ROSS RAISES THE SPECTER OF COMPARISONS BETWEEN INCOME LEVELS AS A REASON FOR NOT EXPANDING THE PROGRAM TO ST. JOSEPH. COULDN'T THE PAYMENT CHARACTERISTICS OF CUSTOMERS IN DIFFERENT INCOME BRACKETS STILL BE COMPARED IF ST. JOSEPH LOW-INCOME CUSTOMERS ARE ALLOWED TO RECEIVE BILL CREDITS?**

A. Yes, they could.

Q. **FROM PAGE 13, LINE 6 THROUGH PAGE 15, LINE 16, OF HER REBUTTAL TESTIMONY, MS. ROSS DESCRIBES A VARIETY OF REASONS THAT ST. JOSEPH'S LOW-INCOME CONSUMERS SHOULD BE EXCLUDED FROM PROGRAM**

PARTICIPATION. WHAT IS YOUR RESPONSE TO THIS PORTION OF HER TESTIMONY?

A. Most of the discussion seems to rehash concerns that I have already addressed in this testimony or previous testimony so I will not repeat my arguments why her reasons are unpersuasive. However, I do want to respond to one specific statement.

Ms. Ross opines that expanding the program ". might increase the quantity of information but would not necessarily improve the quality of information." I believe that the opposite is likely true. Limiting the program to Joplin will "hit the same nail with a somewhat different hammer" while, on the other hand, expanding the program will test its success under substantially different weather conditions which is the primary cost driver underlying the affordability of natural gas bills.

Q. **MS. ROSS PROVIDES A SUMMARY TABLE THAT IS INTENDED TO SHOW EACH PARTIES' POSITION REGARDING THE TOTAL FUNDING AND DISTRIBUTION OF WEATHERIZATION, THE BILL CREDIT AND PAYS PROGRAM FUNDS. DO YOU AGREE WITH THE CHARACTERIZATION OF PUBLIC COUNSEL'S POSITION AS MS. ROSS PRESENTS IT IN HER TESTIMONY?**

A. No, I do not. I have not recommended a surcharge if that is what is meant by an adder. Also, I have not recommended any increase in residential rates because the residential class is already paying above its cost according to Mr. Busch's cost calculations. Instead, I recommended in my rate design testimony that residential would simply provide less support to other classes in order to cover the additional funding requirement associated with the program modifications that I proposed. My rate design calculations reflected the adjustment in support flows to other classes.

Q. **DO YOU HAVE ANY CONCERNS REGARDING STAFF'S PROPOSAL REGARDING THE REDISTRIBUTION OF WEATHERIZATION FUNDING TO THE JOPLIN AREA?**

A. Yes, I do. The Staff appears to be recommending that Joplin receive $0 funding to weatherize low-income homes in Joplin other than for program participants. I think this would be a mistake. For example, the previous ELIR program did not require weatherization so some consumers that may have become ineligible would also not be eligible to have their homes weatherized. Also, what happens if the program is a raging success and the customers who participate in the bill credit program stay on the program and have already been weatherized? Will that mean the weatherization funding sits idle or will there need to be a redistribution of funding each year? I encourage the Commission to avoid the level of micromanagement suggested by the Staff's weatherization recommendation. Instead, with improved outreach, local agencies, free of rigid bureaucratic mandates, can direct qualified customers to the ELIR and weatherization programs available to them.

Q. **DO YOU AGREE THAT THE STAFF'S PROPOSAL BALANCES THE INTEREST IN THIS CASE?**

A. No, I do not. I believe the proposal I have offered on behalf of Public Counsel provides a more balance outcome to customers and the Company. Under my proposal, each area receives increased weatherization funding in proportion to existing levels. St. Joseph and Joplin low-income customers share in the benefit of bill discounts and the groundwork is laid for implementation of a PAYS® program is the Kansas City area.

III. PAYS® PROGRAM

Q. **HOW HAS THE STAFF RESPONDED TO YOU RECOMMENDATION FOR IMPLEMENTATION OF A PAYS® PROGRAM IN THE KANSAS CITY AREA?**

A. Dr. Henry Warren testifying on behalf of the Staff supports a pilot PAYS® program, and for the need for continued work on the program to determine how it could be effectively implemented. He does suggest that the income cap I proposed be removed and that the funding be only $100,000 annually instead of $126,156 as I proposed in direct testimony.

Q. **WOULD YOU ACCEPT THE RECOMMENDATION TO ELIMINATE THE CAP?**

A. Yes, I could accept Dr. Warren's recommendation to remove the income cap for three reasons. The first is that as Dr. Warren points out, the goal is that once a program is up and running it should be self-supporting. To the extent that it is designed to avoid imposing a burden on other ratepayers, I can accept his recommendation. The second reason I would accept eliminating the cap is that I feel strongly that PAYS® should not be viewed as a substitute for low-income support. Disassociating the program from a cap based on income eligibility will work toward that goal. Finally, I recognize that elimination of the cap will likely reduce the administrative burden of the program.

Q. **WOULD YOU ACCEPT THE RECOMMENDATION TO REDUCE THE FUNDING LEVEL FROM THAT WHICH YOU PROPOSED?**

A. If reducing the funding level to $100,000 were critical in the Commission's decision to adopt the program, then I would accept the reduced funding level. However, I would point out that eliminating the income cap on eligibility might increase demand and result in less funding ultimately being made available to moderate and middle-income households. I believe that my original recommendation is the better proposal with respect to an initial funding level.

Q. **HOW HAS THE CITY OF KANSAS CITY RESPONDED TO YOU RECOMMENDATION FOR IMPLEMENTATION OF A PAYS® PROGRAM IN THE KANSAS CITY AREA?**

A. My impression of Mr. Jackson's testimony is that the City of Kansas City will not oppose the program but would prefer to receive additional funding for the existing weatherization program in Kansas City. I was encouraged by his recommendation that if a PAYS® program is approved by the Commission then existing delivery mechanisms should be explored in delivering services to consumers. I hope that I correctly interpret this to mean that the City of Kansas City is willing to offer expertise and recommendations through a collaborative process in determining the best methods for implementing a program, recognizing that it was not the City's first choice of how the funding should be spent.

Q. **HOW HAS THE COMPANY RESPONDED TO YOU RECOMMENDATION FOR IMPLEMENTATION OF A PAYS® PROGRAM IN THE KANSAS CITY AREA?**

A. The Company opposes the recommendation.

Q. **WHAT IS THE BASIS FOR THE COMPANY'S OPPOSITION TO THE PROGRAM?**

A. Company witness Michael Noack says that the Company does not understand what is being proposed in the way of a PAYS® program and that it is concerned that it may involve substantial administrative undertakings and cost by MGE.

Q. **HAVE YOU PROVIDED INFORMATION TO MGE THAT OUTLINES PAYS® PROGRAM PARAMETERS AND POTENTIAL ADMINISTRATIVE RESPONSIBILITIES AND COST TO THE COMPANY?**

A. Yes, I have. In response to five data requests sent to me by the Company, I reiterated that in my testimony I recommended that a collaborative should be responsible for finalizing implementation issues. However, I attempted to provide information on what I believed would be acceptable program parameters. In addition to providing those data request responses to the Company, I provided them to each of the other parties that had expressed an interest in weighing in on the PAYS® proposal. I believe that Dr. Warren from Staff has referenced some of the material I provided in the data request responses. In order to facilitate discussion of my views on a reasonable PAYS® program and the information that I provided to the Company, I have included copies of the Data Request responses as Schedule 3 to this testimony.

Q. **WHAT INFORMATION DID YOU PROVIDE TO THE COMPANY?**

A. In the data request responses, I provided a paper originally presented to NARUC in December, 1999 by Harlan Lachman and Paul A. Cillo, the developers of PAYS®. The basic parameters for program development are outlined in the paper I provided in sections titled *PAYS Product Infrastructure* *and* *How PAYS Products Work.* Although Michael Noack said that the Company does not understand what is being proposed in the way of a PAYS® program and that it is concerned that it may involve substantial administrative undertakings and cost by MGE, I believe I provided a reasonably well developed description that responds to the Company's concern that it does not understand the proposal. The following are excerpts from my response to Data Request No. 1004.

> PAYS® provides a market-based system that enables building owners or tenants to purchase and install money-saving resource efficiency products with no up-front payment and no debt obligation. Those who benefit from the savings pay for the products through a tariffed charge on their utility bill until the costs are fully recovered or for as long as they occupy the location where the products were installed. The monthly charge is set lower than the product's estimated savings. Like a loan, PAYS® allows for payment over time, but unlike a loan the PAYS® obligation ends when occupancy ends or the product fails.
>
> The PAYS® infrastructure includes:
>
> 1) A tariff that assigns repayment of long-term obligations for non-portable measures' costs to the service location where the measure was installed. Individual customers are responsible for repayment of non-durable and portable measures. In both cases, the tariff rate is set in a manner anticipated to recover the cost over a reasonable period relative to the estimated life of the efficiency measure
>
> 2) Billing and payment through a charge on the distribution utility bill with the consequence of disconnection for non-payment; and
>
> 3) Independent certification that products and installation are appropriate and that estimated savings will exceed payments providing customers with the opportunity to receive immediate net savings.
>
> Funding:
> Consistent with the basic parameters of PAYS®, three specific funding issues must be addressed in order to implement a Missouri program;
>
> 1) From whom and how will the start-up costs that initially fund the development of project be recovered?

I believe that recovering this charge as a component of usage based rates is preferable. For simplicity and to avoid resistance by other customer classes that might delay moving forward with a pilot program, I have recommend that the pilot program be funded by and provided to residential customers. I would support recommendations that the program be made available to other classes to the extent that they contribute to the funding. For example, the NH PAYS® program has been successful for government entities.

2) How will ongoing funding needs be met?

A primary decision that must be addressed is the method for establishing an ongoing source of funding to cover the cost of efficiency measures and any associated installation cost. The PAYS® program offers flexibility in the choice of potential funding sources. To date, the New Hampshire PAYS® program has relied on the utility providers for ongoing source of funding and has compensated the utility for providing financing. I do not believe that utility provided financing is an optimal choice for a Missouri program because it does not best align the interest of participants with the interest of the entity providing financing. Basically, my concern is that the utility will generate revenue whether or not the program succeeds and therefore has less incentive to proactively work toward achieving maximum success of the program. I recommend that either ratepayers provide ongoing funding for the pilot or that ratepayer money act as a guarantee to secure low-cost vendor financing or other independent private capital for the program. It seems logical that vendors or other independent private capital suppliers would stand to gain more from a program that offered greater choice and more wide-spread availability, thereby aligning their interest with consumers.

3) From whom and how will the cost of efficiency measures be recovered.

Once an ongoing funding source is established, customers benefiting from a particular energy efficiency measure should repay monies borrowed from the source to pay the up-front costs of implementing the efficiency measures installed at a particular location. Consistent with the PAYS® program presented in the December, 1999, Report to NARUC, I would support an energy service charge applicable to the natural gas bill issued for the service location for durable, non-portable efficiency measures. The monthly energy service charge would be set at a level not to exceed the savings generated from the efficiency measures with the payment term not exceed three-quarters of the estimated life of the measure. Until fully repaid, the repayment obligation and associated charge would transfer to future occupants. Disclosure to future occupants should be required. To the extent that there are qualifying non-durable or portable efficiency measures available from the program, the program participant should be required to repay the obligation in short-term installments that do not transfer to future occupants.

Program Marketing:
As with other aspects of the program, I would recommend relying to the greatest extent possible on a market based approach with limited involvement by the utility. Vendors would seem to have the greatest interest in qualifying various efficiency measures and should be encouraged to market availability of products and services directly to potential participants. I do believe that vendors should be subject to minimum disclosure requirements approved by the Commission. If the Commission seeks to maximize the availability and effectiveness of the program, I would also support development of a generic catalog and informational materials. These materials could be available for distribution through vendors, the Commission's website and partnerships with MDNR and local community action agencies.

Program Administration:
I believe that administration of the pilot program would best be achieved by an entity other than the utility. If a small-scale pilot program is approved by the Commission and fully funded by ratepayers then to minimize program costs I would support identifying a local agency in Kansas City that is willing to administer the pilot program. In the event that the Commission approves a more expansive pilot program, a competitive bid process should be considered.

Prioritization Of Customer Requests:
Since this program is targeted at meeting the needs of moderate to middle income consumers, as opposed to low-income consumers, I would recommend that applications be prioritized on a first come first serve basis with the exception that any low-income applicants be encouraged to apply for lower-cost programs for which they qualify. For example, low-income customers may qualify for $0 cost low-income weatherization. The program should be treated as a compliment to low-income programs, not as a substitute for them.

Consequences Of Customer Default:

> The consequence of default for a participant would be disconnection for non-payment that it would be handled as it is for other utility tariffs. The consequence of default for those funding the program would be bad debt. However, bad debt is expected to be lower than for other existing utility tariffs since PAYS® is designed to reduce a customer's overall bill.

Q. **DID YOU ALSO PROVIDE INFORMATION TO MGE THAT SPECIFICALLY ADDRESSES THE POTENTIAL ADMINISTRATIVE RESPONSIBILITIES AND COST TO THE COMPANY?**

A. Yes, I did. In response to Data Request No. 1006 I clearly indicated that Public Counsel believes MGE's participation should be very limited in terms of administration of the program. In addition, the same Data Request response provide my estimate of the cost to MGE. The information regarding administration and cost is provided below.

> The Office of the Public Counsel has not proposed that the Company administer the PAYS® program and, therefore, has not undertaken a detailed analysis to ascertain the level of costs or resources required for MGE to administer the "Pay As You Save" program. However, I do anticipate that certain costs will be incurred associated with administering the program. I have recommended that the Commission allow MGE to collect about $253,000 over a two year period to develop and initiate a PAYS® program.
>
> My understanding is that the PAYS® system involves two categories of costs: infrastructure costs and operating costs. Infrastructure costs are one-time costs such as the cost for a consultant to assist the working group and "as needed" billing system changes. Operating costs include administration and other ongoing program costs. Since the PAYS® system is market based, other operating costs will be minimal since costs are for the most part covered by those who directly benefit from each market transaction – the customer (who saves money through resource efficiency) and the vendor (who profits from the sale). At this time, I estimate that any operating costs not borne by customers and vendors will be covered by the $253,000 less infrastructure costs.

I estimate that a consultant may cost $50,000-$100,000 depending on the extent of the duties performed. While this cost could be borne by the program, I believe that instead it would be reasonable for the Commission to pay to hire a consultant to act on its behalf in developing a program consistent with the PAYS® parameters presented in my testimony and input from other interested parties. I view the work of the consultant as including many activities that will raise general awareness of the PAYS® system and be potentially applicable on a broader scale than for only MGE.

With regard to the cost for utility billing changes, the cost will depend on the most efficient method of billing based on the size and scope of the program approved by the Commission. Billing changes could involve a manual process or an automated change to the billing system. A manual process might be most appropriate if the Commission approves a very limited short-term experiment. I would estimate the cost of manual billing adjustments at $10,000 to $30,000 depending on the level of detail that will appear on the bill. For a more meaningfully sized, longer-term program, the most reasonable method of billing would be to modify the electronic billing system. I would recommend that for automated billing, in addition to line items in the billing summary, bills would also include a detail page providing information on the status of individual efficiency measures. I believe that $100,000 is likely an overestimate of the cost to implement a change to the automated billing systems. Nevertheless if the Commission's vision is toward a long-term program, I would accept a Commission decision to allow up to this level of recovery if the costs are amortized. In testimony before the Connecticut Department of Public Utility Control, Connecticut Light and Power (testimony from Kathleen Culligan, CL&P Late File Exhibit HD-04, Q-LF-024. Docket No. 03-01-01, March 2003) the Company claimed billing system changes required to accommodate a PAYS® system might cost $104,600. In the New Hampshire Public Utilities Commission Order 23,851, that Commission approved up to $100,000 for billing system changes for one of the two utilities implementing PAYS®. If the Commission approves cost for automated billing changes those cost should be amortized.

I believe that an administrator may cost $37,500 to about $100,000 depending on the extent of the duties performed and the size of the program. I estimate that this produces administrative cost of just under 15% for a smaller, more manual program. In this case, I recommended that partnering with a local agency that is willing to administer the program may reduce cost. The upper bound for administrative cost is based on an assumption of about $1.5 M in

> leveraged funding for the program and produces administrative cost of approximately 6.67% for a larger more automated program.

I feel that the information provides some reasonable guidance to the Company regarding my proposal and the administrative and cost burden I anticipate for MGE.

Q. **HAS THE COMPANY SENT ADDITIONAL DATA REQUESTS IN ORDER TO SEEK FURTHER CLARIFICATION REGARDING YOUR PROPOSAL, THE ADMINISTRATIVE RESPONSIBILITIES OR COST YOU ENVISION THAT THE PROGRAM WOULD REQUIRE OF MGE?**

A. No, it did not. Since the Company has not sought further clarification, I assume it has received sufficient information to understand what I have proposed.

IV. RATE DESIGN

Q. **PLEASE RESPOND TO THE REBUTTAL TESTIMONY OF STAFF WITNESS DAN BECK.**

A. Mr. Beck appears to oppose extending what he views as the Laclede experimental rate design to MGE. I agree with Mr. Beck. He also describes that some of the concerns the Staff raised in response to the Laclede proposal are still relevant. I agree with this as well. Further, as I described in my rebuttal testimony, I had significant concerns regarding the impact of a "weather-proof" rate in shifting weather related risk to consumers.

Q. **MR. BECK OFFERS A DECLINING BLOCK RATE DESIGN AS AN ALTERNATIVE TO THE RATE DESIGN PROPOSAL RECOMMENDED IN THE COMPANY'S DIRECT TESTIMONY. DO YOU BELIEVE THAT THERE SHOULD BE ANY ADJUSTMENT TO THE LEVEL OR DESIGN OF RESIDENTIAL RATES?**

A. Mr. Busch's cost study indicated that the residential class currently pays more than its cost of service. In turn, I recommended, inclusive of the low-income bill credit program, PAYS® and additional weatherization, that residential rates should not change. Any remaining amount that the residential class collected above cost should be directed to reducing the increases that other classes might experience. I see no reason to adjust the residential rate design under these circumstances in order to simply reduce the weather risk faced by the Company. However, if the Commission, despite Public Counsel's objection, decides to adjust rate design to reduce the Company's risk then Mr. Beck's proposal is preferable to both the Company's original proposal and its weather mitigation clause proposal that is suggested in rebuttal testimony.

Q. **DOES MR. BECK'S TESTIMONY CONTAIN ANY ADDITIONAL COMMENTS THAT YOU BELIEVE SHOULD BE GIVEN WEIGHT IN DETERMINING CLASS COST RESPONSIBILITY AND RATE DESIGN?**

A. Yes, I was encouraged by Mr. Beck's acknowledgement that Public Counsel's RSUM mains allocation method may have merit. He also acknowledges that the class revenue requirements are affected by the mains allocation. A lower mains allocation to the residential class should be a positive factor in suggesting a relatively lower revenue responsibility for the residential class. At least in part, Company witness Cummings offers similarity between the Company and Staff cost study results as support for his previous class allocations. I would suggest that Mr. Beck's comments should be viewed as a demonstration that Mr. Beck is not as in line with the Company study results as Dr. Cummings's rebuttal testimony might suggest.

Q. **ON PAGE 18, LINES 15 TO 17, DR. CUMMINGS CLAIMS THAT YOU OPPOSE ALL HIS PROPOSED CHANGES IN SERVICES CHARGES. IS THIS AN ACCURATE CHARACTERIZATION OF YOUR TESTIMONY?**

A. No, it is not. The portion of my testimony he references specifically addresses only recommendations for residential service charges based on Public Counsel's direct case.

Q. DO YOU PROPOSE ANY CHANGE IN THE RESIDENTIAL CUSTOMER CHARGE, CONNECTION CHARGES RECONNECTIONS OR OTHER MISCELLANEOUS FEES?

A. No. The Residential class already recovers more than its cost of service. There is no need to change the status quo with respect to Residential rates.

Q. **DR CUMMINGS ALSO PROVIDES SOME GENERAL CRITICISM THAT YOUR PROPOSAL FOR RETAINING THE STATUS QUO IGNORES COST CAUSATION. HOW DO YOU RESPOND TO THESE CRITICISMS?**

A. As is appropriately included in rebuttal testimony, page 17, line 19 through page 22, line 22 address cost and other considerations that I believe counter Dr. Cummings's proposed increase in the residential connection and standard reconnection charges.

Q. **ON PAGE 33 LINES 11 THROUGH 13, DR. CUMMINGS CLAIMS THAT THROUGH THE WEATHER-MITIGATION VOLUMETRIC STRUCTURE, A SIZABLE PORTION OF THE WEATHER RISK TO THE COMPANY AND THE CUSTOMER IS REMOVED. DO YOU AGREE?**

A. No. While the proposal is certainly beneficial in reducing the weather related risk faced by the Company, I believe it is detrimental to customers and introduces new weather related risk that does not exist under the current non-gas rate structure and PGA/ACA gas recovery mechanisms. For a detailed discussion, please see my rebuttal testimony from page 9, line 8, through page 17, line 18.

Q. **DOES THIS CONCLUDE YOUR TESTIMONY?**

A. Yes, it does.