EXHIBIT

Exhibit No.:	_____
Issue(s):	Rate Design/ Time-of-Use Program
Witness/Type of Exhibit:	Hong Hu/Rebuttal
Sponsoring Party:	Public Counsel
Case No.:	EC-2002-1

REBUTTAL TESTIMONY

OF

HONG HU

Submitted on Behalf of the Office of the Public Counsel

UNION ELECTRIC COMPANY

Case No. EC-2002-1

_____ Exhibit No. 103
Date 7/10/02 Case No. EC-2002-1
Reporter KRM

May 10, 2002

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

STAFF OF THE MISSOURI PUBLIC SERVICE COMMISSION, Complainant,	)	
vs.	)	Case No. EC-2002-1
UNION ELECTRIC COMPANY, d/b/a AmerenUE, Respondent.	)	

AFFIDAVIT OF HONG HU

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

Hong Hu, of lawful age and being first duly sworn, deposes and states:

1. My name is Hong Hu. I am a Public Utility Economist for the Office of the Public Counsel.

2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony consisting of pages 1 through 23.

3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

Hong Hu

Subscribed and sworn to me this 10th day of May 2002.

KATHLEEN HARRISON
Notary Public - State of Missouri
County of Cole
My Commission Expires Jan. 31, 2006

Kathleen Harrison, Notary Public

My Commission expires January 31, 2006.

TABLE OF CONTENTS

REBUTTAL TESTIMONY
OF
HONG HU

AMEREN UE COMPANY

CASE NO. EC-2002-1

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

A. Hong Hu, Public Utility Economist, Office of the Public Counsel, P. O. Box 7800, Jefferson City, Missouri 65102.

Q. PLEASE SUMMARIZE YOUR EDUCATIONAL AND EMPLOYMENT BACKGROUND.

A. I hold a Bachelor of Engineering degree in Management of Information Systems from Tsinghua University of Beijing, China and a Masters of Arts degree in Economics from Northeastern University. I have completed the comprehensive exams for a Ph.D. in Economics from the University of Missouri at Columbia. I have been employed as a regulatory economist with the Office of Public Counsel (OPC, Public Counsel) since March 1997.

Q. HAVE YOU TESTIFIED PREVIOUSLY BEFORE THIS COMMISSION?

A. Yes. I have filed testimonies on many issues including class cost of service and rate design in natural gas, electric, telecommunications and water cases before the Missouri Public Service Commission (Commission).

Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

A. The first purpose of my testimony is to discuss Public Counsel's proposal of an experimental program in Time-of-Use (TOU) rates for residential consumers. Secondly, I will present Public Counsel's response to the rate design recommendation provided by the Public Service Commission Staff (Staff). I will also discuss OPC's rate design recommendations.

I. EXPERIMENTAL RESIDENTIAL TIME-OF-USE RATE PROGRAM

Q. WHAT ARE TIME-OF-USE RATES?

A. TOU rates vary according to the time of consumption/usage. Normally, utilities divide weekdays into two, three or more pricing periods (e.g. peak period, off-peak period, and shoulder period) and charge different commodity charges for energy usage during these different periods. Weekends and holidays are generally considered off-peak periods. TOU rates are designed to more closely reflect the utility's cost structure. A utility's' cost structure for generation costs can reflect the costs of power that it buys and sells in competitive wholesale markets (both long-term and spot market transactions) as well as the costs of operating its own generation units. Therefore TOU rates are generally higher during peak periods and lower during off-peak periods. Compared to the standard fixed rate structure, such programs more fairly distribute lower cost through lower rates to usage during periods when fuel cost are lower.

Q. PLEASE BRIEFLY SUMMARIZE WHY PUBLIC COUNSEL IS PROPOSING AN EXPERIMENTAL TIME-OF-USE PROGRAM FOR RESIDENTIAL CUSTOMERS?

A. I will discuss three beneficial aspects of Public Counsel's TOU proposal:

1) The opportunity for demand management programs presented by AmerenUE's electric generation capacity shortage and transmission congestion;

2) The benefits that a TOU program will bring through efficiency gains for the utility and cost savings to consumers;

3) The opportunity of implementing a TOU program brought by the availability of advanced metering system.

Q. PLEASE EXPLAIN WHY AMERENUE'S ELECTRIC GENERATION CAPACITY SHORTAGE AND TRANSMISSION CONGESTION PRESENTS AN OPPORTUNITY FOR DEMAND MANAGEMENT PROGRAMS.

A. The restructuring of regional electricity markets in the US has been accompanied by numerous problems, including generation capacity shortages, transmission congestion, wholesale price volatility, and reduced system reliability. Utilities tend to respond to these needs by adding more generation and transmission capacities. AmerenUE has been actively proposing and supporting legislation that promotes dis-aggregation of power generation and provides incentives to increased generation capacity. AmerenUE is also conducting studies that advocate increases in generation reserve margins to ensure system reliability. The result of all these factors may lead to increases in the cost of service that is to be shouldered by the utility's customers.

In recent years, researchers and utilities nationwide have started to look for solutions that are not as costly as adding new peak power plants and new transmission lines. They are trying to solve the problem of the need for more generation and transmission capacity from the demand side. Since power generation and transmission capacity shortage problems occur mainly in peak periods, the key to the problems becomes the control and reduction of energy usage in peak periods. This has created significant new opportunities for technologies and business approaches that allow utilities and other load serving entities to control and manage the load patterns of their wholesale or retail end-users. Some researchers conclude that when power shortages occur, even a 2.5%

reduction of peak usage could reduce wholesale electricity price at those times by 24%[1]. The technologies and business approaches for manipulating end-user load shapes are known as demand response programs or load management. Different innovative demand responsive programs include real time pricing and voluntary curtailment programs for commercial and industrial customers, and TOU pricing and appliance control programs for residential customers. According to a report prepared for the National Association of Regulatory Utility Commissioners[2], "[a] careful review of past programs and current market data supports a conclusion that a large fraction -- as much as 40 to 50 percent -- of the nation's anticipated load growth over the next two decades could be displaced through energy efficiency, pricing reforms, and load management programs."

Q. HOW WOULD THESE DEMAND RESPONSE PROGRAMS WORK TO REDUCE PEAK DEMAND AND SOLVE THE POWER GENERATION AND TRANSMISSION SHORTAGE PROBLEMS?

A. Among different demand response programs, programs designed for large industrial customers are more easily implemented by many utilities. Generally, participants in such programs are large customers whose energy usage makes up a large portion of the total energy and who have some flexibility to change their pattern of electricity use. In some programs, the utility alerts the customers to real time electricity price and either lets the customer respond to price change or curtails their usage when the wholesale price exceeds the customers' predetermined price. By doing this, the utility achieves load reduction in summer peak days with high wholesale prices.

[1] News Releases, Study Shows Real-Time Pricing Can Reduce Energy Bills. December 18, 2000, EPRI.
[2] Efficient Reliability, The Critical Role of Demand-Side Resources in Power Systems and Markets, Prepared for the National Association of Regulatory Utility Commissioners, Richard Cowart, Regulatory Assistance Project, June, 2001.

For small customers, demand response programs can be classified into two categories. Home appliance control programs give the utility some control power over the participating customers' appliances. For example, residential customers can install controllable thermostats that could be remotely accessed to adjust the set point so that the utility can adjust the thermostat to a higher degree on a summer peak day. Another type of demand response program for small customers is time-of-use or time-of-day pricing. These programs encourage customers voluntarily shift a portion of their electricity usage from higher priced peak period to lower priced off-peak period so that the total energy usage in the peak period will be reduced.

Currently, there are still very few demand response programs for small customers. Compared to large industrial customers, an average residential customer's load is relatively small. The transaction cost of a demand responsive program may be very large. A pricing system that is too complicated such as real time pricing may not be appropriate since most small residential and commercial customers lack the time and knowledge to constantly monitor their usage of electricity under highly variable conditions. In addition, the installation of appliance control equipment and real time metering equipment may be relative expensive. However, the characteristics of residential energy usage which include a large cumulative load and low load factor imply that there may be large benefits that would result from a successfully implemented demand response program for small customers.

Q. PLEASE CONTINUE TO EXPLAIN THE BENEFITS THAT TIME OF USE RATES CAN BRING TO THE UTILITY AND THE CUSTOMERS.

A. First, the equity advantages of a TOU pricing system are readily apparent. It is widely recognized that the cost of producing electricity varies from hour to hour.

The marginal cost of producing electricity varies widely depending upon the total load and the particular generating units used to service this load. The theory behind TOU rates is simply to vary the price of electricity in accordance with fluctuations in production costs. When the cost of production is high, the price would also be high. Conversely, when the cost of production is low the price would be low.

Secondly, there are potentially large efficiency gains of a residential TOU pricing system. The most significant characteristics of the residential load are that it is very weather sensitive and has large seasonal variations. In summer, air conditioning load represents approximately 1/3 of the residential electric consumption. Since the air conditioning usage usually defines the hourly peaks on summer days, substantial reductions can be expected from encouraging even relatively small percentages of customers to turn their thermostats moderately higher at peak times. In addition, variation in the hour to hour load are also very large in a typical day. Certain uses of electricity such as to cool a refrigerator or freezer are hard to be shifted from one period to another. There are, however, many uses (for example, clothes washing and drying, and electric dish washing) that can be shifted from the peak period to the off-peak period.

Currently, residential customers are charged the same prices for electricity for each hour of each day of each season of the year with prices set in advance to reflect the anticipated average costs of generating electricity. Therefore customers are not aware of the difference in cost of electricity in peak and off-peak periods and have no incentive to reduce their peak load usage. In fact, there are significant quantities of peak usage that assuredly would be reduced if customers have the incentive and practical ability to do so. Some customers would be willing to modify their usage patterns, in order to take advantage of lower rates.

If they do so, this would be advantageous to every one. These customers should benefit from lower electric bills, while other consumers would benefit from their absence during the peak hours, thereby reducing system fuel costs and need for additional capacity at the peak hours. According to a study done by Professor Robert D. Willig, the nationwide annual savings in wholesale expenditures on electricity that would result from competitive time-of-use pricing are conservatively estimated at $18.8 billion at a 50% level of penetration and at $30.3 billion for 100% penetration[3].

Finally, if users could avoid blindly purchasing during price spikes, it would not only benefit the customers financially, it would also greatly reduce the spiking and provide short run reliability benefits and decrease the need to construct new generation capacity. Allowing customers to actively manage/change their loads in response to system conditions can be thought of as the ultimate reliability resource.

Q. ARE THERE ANY SUCCESSFUL EXAMPLES OF TOU RATES FOR SMALL CUSTOMERS IN THE US?

A. Yes. Among all electric utilities in the US, Puget Sound Energy (PSE) is probably the most successful utility in its endeavors of offering TOU rates to their small customers. Since May 2001, about 300,000 PSE residential customers have been paying variable TOD rates for electricity. The customers pay about 17% higher prices during high-demand peak hours than the flat rate, and about 12% lower during low-demand, off-peak hours than the flat rate. According to a news release by PSE, power-usage data indicate that variable, time sensitive rates are

[3] Effective Deregulation of Residential Alectric Service: $21 Billion in Annual Savings for Consumers and a $91 Billion Boost to the Nation's Economy. Robert D. Willig.

promoting a strong conservation ethic among PSE customers. Customers paying TOD rates shifted about 5% of their electricity usage, on average, from the morning and early evening hours when public demand for power and wholesale power prices are highest. In addition, customers paying TOD rates reduced their overall electricity usage in June by more than 6% compared to their June 2000 usage. PSE's customer survey results indicate that customers generally have positive opinions about the pilot program. PSE has received several national awards because of its TOD Personal Energy Management program and it has recently proposed to extend the pricing plan to virtually all of its 930,000 electricity customers.

Q. PLEASE CONTINUE TO DISCUSS WHY PUBLIC COUNSEL BELIEVES THAT A TOU PROGRAM FOR RESIDENTIAL CUSTOMERS IS FEASIBLE.

A. As I discussed previously, the main obstacle for demand response programs for small customers is the relatively large cost of advanced metering equipment and home appliance control equipment. However, recent advancement in metering technology has drastically lowered the costs of automatic meter reading (AMR) equipment. In fact, AmerenUE has already employed such AMR equipment for most of its residential customers. Currently, AmerenUE has contracted with CellNet for its tier-2 AMR equipment services, which includes basic electric meter reading services for all electric automated meters and TOU electric meter reading services for a combined total of up to 5% of all electric automated meters. AmerenUE could upgrade its contract with CellNet for a higher tier service that incudes TOU meter reading for a higher percentage of meters. In other words, the cost of automatic metering equipment is no longer an obstacle to the implementation of a TOU program in AmerenUE's territory. While the

implementation of a TOU program will impose some additional cost to the company, it will not be a great amount.

Q. HAS ANY OTHER PARTY IN MISSOURI RECOMMENDED IMPLEMENTING TOU ELECTRIC RATES?

A. Yes. The Final Report of Missouri Energy task force recommended that "The Public Service Commission should consider implementing Time-of-Use electric rates." In the report, the task force pointed out the following:

- TOU pricing can be offered to moderate Missouri's need for additional generating capacity.
- Many electric utilities, including some in Missouri, have made real time pricing and TOU pricing available to their larger customer for years.
- The cost of interval metering equipment has declined significantly in recent years so one of the main barriers to introducing TOU programs to smaller customer doesn't exist any more.
- AmerenUE is uniquely positioned to offer these rates since it currently has most of the necessary infrastructure in place.
- The additional costs of a TOU billing system are likely to be less than the power supply costs that can be avoided by encouraging customers shift their usage from high-cost to low-cost time periods.

These conclusions that were found by the Energy task force are completely consistent with Public Counsel's beliefs.

Q. DOES AMERENUE CURRENTLY HAVE A RESIDENTIAL TOU PROGRAM?

A. Yes. On December 15, 1993, Commission approved the optional Time of Day (TOD) tariffs filed by AmerenUE. The rates became effective on January 14, 1994. Under this rate structure, customers pay a higher customer charge than the traditional residential customer charge in order to cover the cost of electric meters. The summer and winter on-peak energy charges are higher than those under the traditional residential rates and the summer and winter off-peak energy charges are lower than those under the traditional residential rates. Customers can only expect savings on the TOD rate if their on-peak (10am-10pm weekday) kwh usage is less than 36% of their total monthly kwh. Customers must remain on the TOD rate for at least twelve monthly billing periods unless written request for termination of TOD billing is received from customer within the first ninety days of TOD billing. In all cases the higher or additional TOD customer charge will be billed for a minimum of twelve monthly billing periods. Currently, approximately 40 residential customers have chosen to be billed under the TOU pricing.

Q. WHY IS THE AMERENUE TOD RATE CHOSEN BY ONLY A LIMITED AMOUNT OF RESIDENTIAL CUSTOMERS?

A. Under AmerenUE's current tariff, all residential customers are qualified for the Optional TOD rates. There may be many reasons that the TOD rates have not received great attention from the customers. For example, it may be because the Company is not actively promoting the program. Public Counsel has requested from AmerenUE all informational or promotional materials that it sent to its Missouri residential customers about the optional TOD rates. Among the materials we received, the only document of this nature that I have found is a flier titled "Questions and answers on Union electric company's new time-of-day

rates". Another reason that few customers have chosen the TOD rate may be because it is too hard for them to figure out whether this rate will be beneficial to them. In the flier I mentioned above, customers were instructed to use the following steps to determine whether going to the rate would save them some money:

- Keep track of the times you start and stop using major electric applicances -- dishwashers, stoves, air conditioning units, washers or driers.
- Read your meter twice a day on weekdays around 10 am and 10 pm for one or more months to determine how much of your total energy usage is during those peak times.
- Then consider how you might change your use of electricity.

Some customers may not even know how to read their meters. It would be quite a big inconvenience for a customer to read his meter twice a day on weekdays for one or more months. Without knowing how much the cost savings might be, a customer may decide that it is not worth going through the hassle just to find out that the TOD rate option is not suitable for them.

Q. PLEASE DISCUSS THE DETAILS OF PUBLIC COUNSEL'S PROPOSAL REGARDING AN EXPERIMENTAL RESIDENTIAL TOU PROGRAM.

A. Public Counsel proposes that the Commission establish a collaborative committee that includes technical experts from the Commission Staff, Public Counsel and AmerenUE to design and evaluate the experimental residential TOU program. The collaborative committee should be responsible for selecting one or more typical cities where the experimental residential TOU rate structure will be

implemented, designing informational and educational materials that program participants would receive, determining the rate components of the TOU program, identifying the expenses associated with the program, and recommending the type of rate-making mechanism to recover such expenses.

The collaborative committee should start its work no later than two months after the Commission's Report and Order and the experimental program should be initiated no later than six months after the Commission's order. All residential customers in the chosen geographic area with an automatic meter should be included in the program. The experimental program should last at least two years. At the end of each month, the customers will be billed according to the TOU rates. A website should be accessible to the participating customers where after typing in their password, they will be able to access their usage information and get a comparison of their monthly charge under both the TOU rates and the standard residential rates. With the knowledge of their own usage information, the customers will be able to adjust their behavior so they can benefit more from the TOU rates. At the end of each year, all charges will be summed up. If the total annual cost to a customer under the TOU rates is greater than that under the standard rates, the difference will be refunded to the customer.

AmerenUE should monitor the program (e.g. customer feedback, metering difficulties, etc.) and report to the collaborative committee quarterly. AmerenUE should also be responsible for collecting data (as determined by the collaborative committee) that should be analyzed after the two-year period in order to determine whether customers behavior has changed over time, whether the load factor is improved compared to the rest of the residential customers and whether the TOU program will bring cost savings to both the utility and the customers. Six months after the conclusion of the experimental program, the collaborative committee

should complete its evaluation of the program and report to the Commission about: (1) the feasibility of implementing a full scale residential TOU program throughout AmerenUE's service territory, and (2) steps that need to be taken for expanding the residential TOU program to the entire service territory of the company.

Q. ARE THERE ANY ADDITIONAL EXPENSES THAT OPC BELIEVES COULD BE INCURRED IN ASSOCIATION WITH THE EXPERIMENTAL RESIDENTIAL TIME-OF-USE PROGRAM?

A. Yes. OPC believes that additional expenses associated with the experimental residential TOU program could include expenses for:

1. a higher-tier meter reading,
2. modifying the billing system in the chosen geographic area,
3. designing and distributing informational and promotional materials,
4. establishing the web access for the customers, and
5. providing refunds to the customers whose TOU annul bills are higher than their standard bills.

There could also be expenses associated with the program if the TOU rates are not expected to be revenue neutral. The collaborative committee should consider recommending to the Commission a method of recovering these additional expenses. The collaborative committee could consider rate-making mechanisms such as the non-traditional accounting procedures that the Commission

contemplated for the demand side resource cost in Commission Rule 4 CSR 240-22.080(2).

Q. DOES OPC BELIEVE THAT THE TOU RATES DESIGNED BY THE COLLABORATIVE COMMITTEE SHOULD REFLECT (1) AMERENUE'S EMBEDDED COST OF GENERATION, (2) REAL TIME OR DAY AHEAD WHOLESALE MARKET PRICES OR (3) A COMBINATION OF (1) AND (2)?

A. We have an open mind about this issue and look forward to participating in the collaborative committee's discussion of this issue.

Q. PLEASE EXPLAIN WHAT WOULD OCCUR IF THE COLLABORATIVE COMMITTEE THAT WOULD BE CHARGED WITH DESIGNING THE PROGRAM IS NOT SUCCESSFUL IN REACHING CONSENSUS ON PROGRAM DESIGN AND IMPLEMENTATION DETAILS.

A. If areas of disagreement arise, those issues should be brought before the Commission for a resolution.

II. CLASS COST OF SERVICE STUDY AND RATE DESIGN

Q. WHAT ARE THE MAIN PURPOSES OF PERFORMING A CCOS STUDY?

A. The main purpose of a CCOS Study is to determine the relative class cost responsibility for each customer class by allocating costs in a reasonable manner, and thus provide guidance for determining how rates (e.g., customer charges) should be designed to collect revenues from customers within a class, depending on customer usage levels and patterns.

Q. HAS THE STAFF FILED A CCOS STUDY IN THIS CASE?

A. No. The Staff presented a summary of the results of the Staff's CCOS study filed on March 19, 1999 in Case NO. EO-96-15 but it has not filed a new or updated CCOS study in this case.

Q. WHAT IS THE STAFF'S RATE DESIGN PROPOSAL?

A. According to Staff witness Mr. James Watkins, the Staff recommends that the rate reduction in this case should fulfill "rate design goals that [the Commission] was not able to implement in Case No. EO-96-15." Specifically, the Staff recommended "[t]he reminder of the rate reduction associated with the first $25,000,000 of the rate reduction [from Case No. EM-96-149, which was] contemplated in the rate design case should be distributed to the non-residential, non-lighting customer classes by an equal percentage of weather-normalized current rate revenues." The Staff also recommended that "[t]he remainder of the rate reduction [in this current case] should be applied as an equal percentage

reduction to each rate component, except the customer charges, of each rate schedule."

In her direct testimony, Staff witness Ms. Janice Pyatte specified that the amount of the overall revenue decrease that was eventually implemented following Case No. EM-96-149 was $15.951 million. She further calculated the "reminder of the rate reduction associated with the first $25,000,000 of the rate reduction contemplated in the rate design case" to be $9,834,790. In other words, the Staff is recommending the first $9,834,790 of rate reduction in this case be spread to non-residential, non-lighting classes. The revenue reductions to each class that result when the overall reduction is en excess of $9,834,790 are recommended to be "based on each class's rate revenue, excluding revenue associated with the customer charge, after the initial revenue reduction has occurred."

Q. DOES PUBLIC COUNSEL AGREE WITH THE STAFF'S RATE DESIGN PROPOSAL?

A. No. OPC believes that without careful and thorough study of class cost of service, an equal percentage spread of revenue reductions over all customer classes based on their total class revenue is more appropriate.

Q. WHY DOES PUBLIC COUNSEL DISAGREE WITH THE STAFF'S RATE DESIGN PROPOSAL?

A. First, OPC believes that any inter-class revenue responsibility shift which results from this case should be based on a thorough re-examination of the class cost of service, not on an agreement that was reached through negotiation in a previous case. Second, OPC does not agree with the Staff's calculation regarding the amount of "the reminder of the reduction associated with the first $25,000,000 of

the rate reduction." Last but not least, OPC believes that by allocating the revenue reduction based on non-customer charge class revenues, the Staff is not giving the residential class its fair share of the revenue reduction.

Q. HAS THE STAFF PRESENTED ANY CURRENT EVIDENCE THAT THE RESIDENTIAL CLASS IS CURRENTLY PAYING SIGNIFICANTLY LESS THAN ITS COST OF SERVICE IN THIS CASE?

A. No. The only evidence the Staff presented in its direct testimony on this issue is the summary of a previous Staff CCOS study which showed an approximate $25 million class revenue deficiency for the residential class at the time of Case No. EO-96-15. Ultimately, this issue was settled, as were the remaining issues in that case. The Staff appears to be making a recommendation in this case, based upon an assumption that the terms of that settlement will apply in this case. However, the Commission is not bound by any obligation that resulted from the previous cases. Any rate design decision in this case should be based on a careful examination of all relevant factors presented in this current case. Without sufficient evidence that the residential class is paying significantly less than its cost of service, it is inappropriate to further deprive the residential class of an equal share in the revenue reduction. The agreement reached in the rate design case is by no means a definite indication of **current** residential class revenue deficiency.

Q. IS IT REASONABLE TO ASSUME THAT THE REVENUE DEFICIENCY FROM COST OF SERVICE FOR THE RESIDENTIAL CLASS HAS REMAINED UNCHANGED SINCE CASE NO. EO-96-15?

A. No. In fact, many changes in the Company's cost and revenue structure have occurred since Case No. EO-96-15 which could be reasonably expected to have an impact on class cost of service. For example, the merger between AmerenUE and CIPS that occurred after Case No. EO-96-15 could result in cost savings that may benefit each customer class differently. Also, rate design changes were implemented as the result of Case No. EO-96-15, and the second Experimental Alternative Regulatory Plan has ended on June 30, 2001. OPC believes that in order to determine each customer class's revenue responsibility in this case, a deeper and more detailed re-examination of class cost of service is necessary to determine whether different class should receive different levels of rate reduction.

Q. WHY DOES OPC DISAGREE WITH THE STAFF'S CALCULATION REGARDING THE AMOUNT OF "THE REMINDER OF THE REDUCTION ASSOCIATED WITH THE FIRST $25,000,000 OF THE RATE REDUCTION"?

A. Staff witness Janice Pyatte calculated "the reminder of the reduction associated with the first $25,000,000 of the rate reduction" to be $9,834,790. She also specified that the resulting revenue reduction followed Case No. EO-96-15 is $15,951,000. She pointed out that these two numbers do not add up to $25,000,000. Instead, the sum of these two numbers is $25,785,790. She did not explain why this happened in her direct testimony filed on March 1, 2002. However, she did explain her calculation in her previously filed testimony on July 2, 2001. She explained that "[t]he 'reminder of the $25 million specified in the rate design case' would only be the difference between the stipulated amount of

$25 million and the ordered amount if one believed that $25 million in July 2001 was equivalent to $25 million in September 1998, the target date for implementing the permanent rates. This is not the case. Thus the 'remainder of the $25 million specified in the rate design case' must be some number larger than the simple subtraction of the ordered or implemented amount from the stipulated amount." I agree that the present value of a $25 million in 1998 is larger than $25 million now. However, this is only one factor that has changed over time. The Staff is not proposing to consider any other factors that might have changed since 1998. It is unreasonable to simply assume the residential class's revenue deficiency has increased because of the increase in present value of money. In fact, the residential class's revenue deficiency may be equally (if not more) likely to be decreased over the years because of other factors such as the merger between AmerenUE and CIPS.

Q. WHY DOES OPC BELIEVE THAT BY ALLOCATING THE REVENUE REDUCTION BASED ON NON-CUSTOMER CHARGE CLASS REVENUES, THE STAFF IS NOT GIVING THE RESIDENTIAL CLASS ITS FAIR SHARE OF THE REVENUE REDUCTION?

A. The fact that different customer classes have different rate structures means that an equal percentage reduction on the non-customer charge revenues will result in different percentage reductions on the total class revenues. For the residential class, the customer charge revenue represents about 10% of total class revenue. The customer revenue proportion is approximately 6% for SGS class, 2% for LGS and less than 1% for SPS and LPS. Comparing to the non-residential and non-lighting classes, residential customer charge revenue represents a much larger proportion of the total class revenue. According to the Staff, if the percentage reduction on non-customer charge revenues is, say, 10%, then the residential class

would effectively only receive approximately 9% reduction while the Primary Service classes receive approximately 10% reduction. Therefore, in addition to not receiving any portion of the first $9,834,790 of revenue reduction, residential class is further asked by the Staff to take a even smaller share of the rest of the revenue reduction.

In page 22, lines 14 through 16, Ms. Pyatte stated that "[t]he calculation presented in this filing preserves rate continuity between the existing rate schedules and allows the charges and credits associated with multiple rate schedules to be reduced by the same percentage." Public Counsel does not disagree that rate continuity is a valid factor to be considered in rate design cases. However, normally preserving rate continuity is only a concern among non-residential classes. A non-residential customer can choose which rate schedule it wants to be billed with and there may be rate-switching problems if the rate continuity is not preserved. This is not a problem for the residential class. A residential customer can not choose to be billed under another rate schedule no matter how beneficial it is to him. The rate continuity consideration can not justify the fact that the residential class would receive unfavorable treatment under the Staff's proposal.

I have reproduced information presented in Ms. Janice Pyatte's Schedule 6 in table 1 below. The table clearly shows that the residential class would receive a unproportionally small share of allocation of the total company revenue reduction.

Table 1. Staff Proposal for the Revenue Decrease to Each Class for Various Reductions in Overall Missouri Revenue (data from the Staff)

Revenue Reduction	Residential	Small GS	LGS & SPS	Large PS	Total MO
$50 million	-2.09%	-3.15%	-3.26%	-3.29%	-2.72%
$100 million	-4.69%	-5.86%	-6.10%	-6.17%	-5.44%
$150 million	-7.30%	-8.56%	-8.94%	-9.05%	-8.16%
$200 million	-9.90%	-11.27%	-11.79%	-11.92%	-10.88%
$250 million	-12.50%	-13.97%	-14.63%	-14.80%	-13.60%

Q. WHAT IS THE PUBLIC COUNSEL'S RATE DESING PROPOSAL?

A. Public Counsel proposes that without a current and reliable CCOS study, the total company revenue reduction should be spread to all rate classes as an equal percentage reduction based on overall class revenue. The class revenue reduction should be spread to non-customer charge rate components as an equal percentage reduction within the same class. If the Commission determined that the previous pre-merger CCOS studies can be relied upon, then the Public Counsel would recommend the Commission approve no more than half of the difference between $25,000,000 and $15,951,000 (the reduction resulted from ER-EM-96-149), i.e. $4,524,500 to go to non-residential, non-lighting classes. This is consistent with Public Counsel's rate design recommendations in previous cases.

Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A. Yes.