Exhibit No.
Witness: Maurice Brubaker
Type of Exhibit: Surrebuttal Testimony
Sponsoring Party: Missouri Industrial Energy Consumers
Case No. EC-2002-1
Subjects: Revenue Allocation/Rate Design, Rate Comparisons, Alternative Regulation Plan

Before the
Missouri Public Service Commission

Staff of the Missouri Public Service Commission	)	
Complainant	)	
v.	)	**Case No. EC-2002-1**
Union Electric Company, d/b/a AmerenUE	)	
Respondent.	)	

Surrebuttal Testimony of

Maurice Brubaker

Exhibit No. 118
Date 7/10/02 Case No. EC-2002-1
Reporter Kem

On Behalf of

Missouri Industrial Energy Consumers

June 24, 2002
Project 7651

BRUBAKER & ASSOCIATES, INC.
ST. LOUIS, MO 63141-2000

Before the Public Service Commission
of the State of Missouri

Staff of the Missouri Public Service Commission	)	
Complainant	)	
v.	)	**Case No. EC-2002-1**
Union Electric Company, d/b/a AmerenUE	)	
Respondent.	)	

STATE OF MISSOURI)
) **SS**
COUNTY OF ST. LOUIS)

Surrebuttal Affidavit of Maurice Brubaker

Maurice Brubaker, being first duly sworn, on his oath states:

1. My name is Maurice Brubaker. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000. We have been retained by the Missouri Industrial Energy Consumers in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes is my surrebuttal testimony which was prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. EC-2002-1.

3. I hereby swear and affirm that the surrebuttal testimony is true and correct and shows the matters and things it purports to show.

Maurice Brubaker

Subscribed and sworn to before this 21st day of June 2002.

CAROL SCHULZ
Notary Public - Notary Seal
STATE OF MISSOURI
St Louis County
My Commission Expires: Feb. 26, 2004

Notary Public

My Commission Expires February 26, 2004.

Before the
Missouri Public Service Commission

Staff of the Missouri Public Service Commission	)	
Complainant	)	
v.	)	**Case No. EC-2002-1**
Union Electric Company, d/b/a AmerenUE	)	
Respondent.	)	

Surrebuttal Testimony of Maurice Brubaker

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A Maurice Brubaker. My business address is 1215 Fern Ridge Parkway, Suite 208,
3 St. Louis, Missouri 63141-2000.

4 **Q ARE YOU THE SAME MAURICE BRUBAKER WHO HAS PREVIOUSLY**
5 **SUBMITTED REBUTTAL TESTIMONY IN THIS PROCEEDING?**

6 A Yes.

7 **Q WHAT IS THE SUBJECT OF YOUR SURREBUTTAL TESTIMONY?**

8 A In this surrebuttal testimony I will address certain of the rate design proposals
9 contained in AmerenUE's (UE or Company) rebuttal testimony and will update my
10 recommended class revenue allocation using the test year class cost of service study
11 submitted by UE as a basis. I will then comment on certain rate comparison exhibits
12 presented by various UE witnesses.

In addition, I will offer certain comments with respect to selected aspects of the Alternative Regulation (AltReg) plan advanced by UE through its witness Warner Baxter.

RIDER E

Q HAVE YOU REVIEWED THE TESTIMONY OF UE WITNESS KOVACH AT PAGES 102-107, AND HIS ACCOMPANYING SCHEDULE 16?

A Yes. This testimony and schedule presents an alternative form of Rider E, which is intended to replace the current Rider E. Rider E effectively provides backup service to customers operating generation facilities in parallel with the UE system.

Q DOES MIEC SUPPORT MODIFICATIONS TO RIDER E ALONG THE LINES SUGGESTED BY MR. KOVACH?

A No, certainly not at this time.

Q WHY DOES MIEC TAKE THIS POSITION?

A The Company has proposed quite extensive changes in Rider E. These changes could have a significant impact on the cost of electricity to a customer operating generation in parallel with the UE system. I understand that UE has not quantified the impact of this significant change in Rider E on any of its affected customers, and that it does not have the information necessary to make an accurate determination. Furthermore, it has not included the revenue effect of this change in its overall cost of service or its rate design. To the extent that additional revenues would be produced by this proposed revised Rider E, it would be a windfall to UE since the assumption in

UE's cost of service determination is that there is no change in revenues from Rider E customers.

Q WHAT INFORMATION WOULD BE NECESSARY TO CALCULATE THE IMPACT OF THIS TARIFF?

A Several items of information would be required. This includes the amount of standby capacity that customers would want to subscribe to, and the outage characteristics of the generation units for which backup service is being provided. In my discussions with UE personnel, it was indicated that UE did not have the data necessary to make the impact calculations. Preliminary information provided by UE indicates potentially large increases.

Accordingly, it is MIEC's recommendation that the proposed changes to Rider E be rejected.

Q PUTTING ASIDE, FOR THE MOMENT, THE QUESTION OF WHETHER THERE SHOULD BE ANY CHANGE IN RIDER E AT THIS TIME, DO YOU AGREE IN GENERAL WITH THE METHODOLOGY EMPLOYED BY UE?

A I agree with some aspects of the methodology, but I believe that the rate is too high, its provisions are too restrictive, and it is incomplete.

Q PLEASE ELABORATE.

A In general, I agree with the concept of an on-going charge for backup demand, but believe that the level proposed by UE is too high. Also, while I agree with the idea of pro-rating the demand charge to price standby service when used, UE would limit the proration to half of the days in the month, while I see no basis for anything other than

a daily proration regardless of the number of days that service is used during the month.

Also, UE does not make a distinction between backup (forced outage) service and scheduled maintenance service. I believe that a lower price should be charged for scheduled maintenance that is coordinated with and approved by the utility. In terms of the energy charges, UE proposes to add $5.00 per megawatthour on top of the regular energy charge. I disagree with this because standby customers would already be paying a share of the embedded cost of the entire generation system through the reservation charge and pro-rated use charge.

In addition, the tariff specifies that the generator backup demand will be based on the nameplate capacity of a customer's self-generation equipment. There are many reasons why this level of backup capacity is inappropriate.

Q PLEASE ADDRESS THE ISSUE OF THE LEVEL OF THE GENERATOR BACKUP DEMAND CHARGE?

A UE has proposed a charge of $1.82 per kW. This is based on the idea that Ameren maintains roughly an 18% reserve margin. UE has multiplied this times its unbundled production demand cost of roughly $10 per kW to arrive at a charge of $1.82 per kW-month. There are two problems with this number. First, the reserves are already included in the $10 charge, so that applying 18% on top of this charge effectively overstates the price. The correct number under this theory should be approximately $1.50 per kW.

More fundamentally, however, is the problem that the standby charge is proposed to be based on the reserve margin required for utility generation systems, which consist of large units that have a lower degree of reliability than do many self-

generation or cogeneration units. Experience shows that it is not unusual for customer-installed generation units to be extremely reliable, and to have forced outage rates of 5% or less. The expected load that a standby customer would place on a utility system is equal to the forced outage rate times the capacity of the generation for which standby service is provided. This is a probabilistic concept, and is very similar to how utility system required reserve margins are analyzed. In general, the higher the forced outage rate, the higher the required reserve margin.

A 20-megawatt generator, with a 5% forced outage rate, would have an expected load, at any hour, including the hour of system peak, of 1 megawatt (20 MW x 5%). Of course, in many hours the load will be zero, and in other hours it will be 20 megawatts. The 20 megawatts will be imposed when the generator is experiencing a full forced outage. Examined over an extended period of time, there would be months when the generator outage would coincide with a system monthly or annual peak load, and other times when the requirement would be zero. On average, however, the expected value is 5% of the capacity, or 1 MW.

Thus, with a forced outage rate of 5%, we would expect a load equal to 5% of the amount of the standby power. Applying this to the $10 generation cost (approximately) produces a reasonable standby charge of 50¢ per kW-month.

Q WHAT HAPPENS IF A GENERATOR IS LESS RELIABLE?

A This is covered fully by the daily proration of the demand charge. In the case of a $10 production demand cost, customers utilizing standby would pay for that use on a daily pro-rated basis, equal to approximately $10 per kW divided by 20 weekdays per month, or 50¢ per kW-day. A less reliable generator would, obviously, use standby more than a highly reliable generator and accordingly would pay a higher amount of

standby cost to UE. For example, a customer not using standby at all during the month would pay the 50¢ per kW reservation charge. A customer using standby power for five days in the month would pay for five days of use, or 50¢ per kW-day times five days equals $2.50. This is appropriate and a methodology widely employed in the industry.

In designing an appropriate on-going standby charge, it is important to be sure that highly reliable customers are not over-charged. UE's proposal would effectively over-charge any customers with a degree of reliability better than the utility average that formed the basis for the utility's 18% reserve margin. Since customers pay for standby use on an as-used basis, less reliable cogenerators will automatically pay more than cogenerators who are more reliable. However, since the minimum that can be paid is the on-going monthly charge, a highly reliable cogenerator would be over-charged under UE's tariff.

If the objective is to charge customers in proportion to the cost that they impose, then the on-going charge should be not more than that which is necessary to recover the costs associated with providing standby to the most reliable unit being served on the system. We do not know what that is, but we know from experience that many cogenerators have forced outage rates of 5% or less. Accordingly, it is appropriate to establish the on-going charge at 50¢ per kW-month and to charge for standby on an as-used basis in order to recover additional costs from the less reliable customers.

Q IN UE'S APPLICATION OF THIS GENERAL METHODOLOGY, DOES IT PROVIDE FOR PRO-RATION ACROSS THE ENTIRE MONTH?

A No. UE only prorates until a customer has effectively used backup service for one-half of the days in a month. If this service is used for more days, the full firm rate demand charge must be paid. It is unusual to limit the use of service in this fashion. Most tariffs prorate on a daily basis across the entire month. Thus, a customer having a major forced outage that would require the use of standby for an entire month would pay the full demand cost for that month.

Q HOW SHOULD SCHEDULED MAINTENANCE BE HANDLED?

A Scheduled maintenance that is pre-arranged with, and approved by, the utility should be less costly than forced outage service since the timing can be fit into the utility's load and maintenance schedule. I recommend that the charge for prescheduled maintenance service be set at 50% of the price for forced outage service, or 25¢ per kW-day. This recognizes the lower cost incurred when generator maintenance can be scheduled in coordination with the utility system maintenance plan. It also gives the customer an incentive to schedule the maintenance in coordination with the utility, and encourages the utility to fit the maintenance requirements into its schedule.

Q PLEASE COMMENT ON THE ENERGY CHARGE.

A UE wants to charge the same energy charge as is in the regular tariff, but add $5 per megawatthour to all energy utilized for standby purposes. Since the customer would be essentially paying the full average demand cost for the generation facilities, on a pro-rated basis, I do not see any reason to charge more than the regular tariff energy charge for this service. Alternatively, if UE wants to charge a higher energy price, then it should not charge any generation demand charge.

Q UE HAS PROPOSED THAT THE GENERATOR BACKUP DEMAND BE APPLIED TO THE NAMEPLATE RATING OF THE CUSTOMER'S SELF-GENERATION EQUIPMENT. IS THIS APPROPRIATE?

A No, it is not appropriate. For a variety of reasons, a customer's need for standby may not equal the level of the nameplate rating of its generation facilities.

Q PLEASE ELABORATE.

A For example, a customer may not normally operate its generation facilities to the extent of its nameplate rating. A customer may have certain reserves built into its own self-generation system, to the extent that it, for example, operates 10 megawatts out of 20 megawatts of installed capacity. It may even have multiple units that back up each other.

In addition, even if a customer normally operated at nameplate capacity, it is often the case that there is a relationship between electric demand and steam demand. Thus, if a generator is lost or experiences a partial outage, the steam supply to the customer will decrease, and the electrical requirement may also decrease. Thus, even if a customer normally operates its facilities close to nameplate ratings, its need for standby service may actually be less than nameplate rating.

For all of these reasons, the customer should be allowed to designate the desired level of standby capacity. Of course, the utility should not be required to provide standby in excess of the amount designated by the customer.

PROPOSED CHANGES TO RIDER B

Q WHAT IS RIDER B?

A Rider B provides credits to customers who take service at higher voltages (i.e., above the primary voltage level), and thus allow UE to avoid certain costs.

Q HAVE YOU REVIEWED UE'S PROPOSED REDUCTIONS TO THE RIDER B CREDITS?

A Yes, I have.

Q DO YOU AGREE WITH THE REDUCTIONS IN RIDER B CREDITS PROPOSED BY UE?

A No, I do not.

Q PLEASE ELABORATE.

A There are two problems with UE's calculations. First, there are some minor calculation errors which, if corrected, would raise the proposed credit at 34.5/69 kV from 51¢ per kW-month to 53¢ per kW-month, and the credit at 138 kV service from 84¢ per kW-month to 87¢ per kW-month. As indicated, these appear just to be calculational errors.

The second problem is much more significant.

Q PLEASE EXPLAIN.

A UE's analysis correctly reflects the fact that the losses in delivery of energy are lower at high voltages than at lower voltages, and provides a corresponding credit. However, UE has failed to reflect this characteristic on the demand side. The same

loss factor percentages that UE applied to the energy charges should also be applied to the primary service rate demand charges. The proposed demand charge in the large primary service rate is approximately $10 per kW-month. For service at the 34.5/69 kV voltage level the 2.1% loss factor should be applied to produce an additional demand-related credit of 22¢ per kW-month. This is appropriate because customers taking service at the 34.5/69 kV level impose less generation costs, per kilowatt of metered demand, on UE than do customers taking service at lower voltage levels.

Similarly, when service is taken at the 138 kV level, additional losses are avoided, to the extent that an additional credit of approximately 17¢ per kW-month should be provided.

Q PLEASE SUMMARIZE YOUR FINAL RECOMMENDATIONS WITH RESPECT TO RIDER B CREDITS.

A For service at 34.5/69 kV UE's proposed rate of 51¢ should be corrected to reflect accurate calculations, to produce 53¢ per kW-month. To this should be added 22¢ per kW-month to properly reflect losses on the demand side. This produces a final Rider B credit of 75¢ per kW-month.

At the 138 kV level, UE's proposed Rider B credit of 84¢ per kW should first be corrected to 87¢ per kW. Then, 39¢ per kW should be added to reflect avoidance of losses on the demand side. This produces a final Rider B credit of $1.26 per kW-month.

RATE COMPARISONS

Q HAVE YOU REVIEWED THE RATE COMPARISONS SHOWN ON SCHEDULE 9 ATTACHED TO MR. KOVACH'S TESTIMONY?

A Yes, I have. This comparison is of UE's average residential, commercial and industrial tariffs with the west north-central region and the east north-central region.

Q WHAT DOES THIS INFORMATION SHOW WITH RESPECT TO THE RELATIONSHIP AMONG RESIDENTIAL, COMMERCIAL AND INDUSTRIAL PRICES?

A Using UE's data, Schedule 1 shows a comparison of the relative level of the residential, commercial and industrial rates as among UE-Missouri, the West North-Central region and the East North-Central region. Note that the residential and commercial customers in the Ameren service area have, according to UE's presentation, the lowest rates among the three groups, whereas the industrial customers have the highest rates among the three groups. This is consistent with the rate comparison data that I presented as part of my rebuttal testimony, and also consistent with my comments concerning the disproportionately high level of UE's industrial rates when compared to its residential and commercial rates.

Q PLEASE COMMENT ON THE RATE COMPARISONS SHOWN ON SCHEDULE 2-1 ATTACHED TO THE TESTIMONY OF UE WITNESS WEISMAN.

A These comparisons are for residential customers only, and for a selected group of cities. While it shows that the average residential electricity cost for St. Louis is next to the lowest, there is nothing particularly surprising about these rankings.

Q PLEASE EXPLAIN.

A First, Seattle has the lowest cost. This is no surprise at all because Seattle benefits from a substantial amount of relatively low-cost hydroelectric generation. St. Louis is ranked second lowest, but this is also not a surprise because St. Louis has the second lowest Consumer Price Index (CPI), as published by the Bureau of Labor Statistics, of all of the cities shown. (Note, in these comparisons we have excluded data for the Washington-Baltimore area because CPI data with a comparable base year could not be found.)

Also, the six highest residential electricity cost cities, namely Chicago, Philadelphia, Boston, New York, San Francisco and Los Angeles, are also the cities with the highest CPIs. (The exception is Seattle, which is about in the middle of this group, but which has low electric rates because of the unique feature of significant hydro resources.)

What is to be concluded from all this is nothing more than the obvious: some places are more expensive to live than others. While electricity is less expensive in St. Louis than in places like Chicago, Philadelphia, Boston, New York, San Francisco and Los Angeles, so is most everything else that you want to buy or consume. I doubt very much that St. Louis residents who work in the downtown area would judge the reasonableness of their level of parking rates by comparing them to the cost of parking a car in New York City.

Q PLEASE COMMENT ON THE RATE COMPARISON DATA SHOWN ON SCHEDULES 2-2 AND 2-3 ATTACHED TO THE TESTIMONY OF UE WITNESS WEISMAN.

A The data on these two charts is similar to the data on Schedule 2-1. It is based on aggregated values from groups of undisclosed cities with various population levels. And, like the data on Schedule 2-1, it shows only the residential customer class. No attempt has been made to show any comparisons for commercial or industrial customers.

REVENUE ALLOCATION BASED ON CURRENT CLASS COST OF SERVICE STUDY

Q HAVE YOU REVIEWED THE UPDATED COST OF SERVICE STUDY PRESENTED BY UE WITNESSES KOVACH AND WARWICK?

A Yes. UE has presented a test year cost of service study using the average and excess - four noncoincident peak method. This is the same basis for the cost of service study that I used in conjunction with my rebuttal testimony.

Q HAVE YOU UPDATED YOUR REVENUE ALLOCATION RECOMMENDATIONS UTILIZING THIS COST OF SERVICE STUDY?

A Yes, I have. Schedule 2 shows the allocation based on full movement to cost of service at a $250 million revenue reduction level, and Schedule 3 shows movement 50% of the way toward cost of service at a $250 million revenue reduction level. These correspond to Schedules 3 and 4, respectively, attached to my rebuttal testimony.

Q ARE THE RESULTS OF THE UPDATED STUDY COMPARABLE?

A Yes. They are very comparable. For example, for the residential class at 100% movement to cost of service the original study showed a 4.58% decrease if the

overall decrease were $250 million, whereas the updated study shows a decrease of 5.29%.

The biggest difference is between the large general service class and the small primary service class. The updated study shows a somewhat smaller relative decrease for the small primary class, and a somewhat larger relative decrease for the small primary service class.

ALTERNATIVE REGULATION PLAN

Q HAVE YOUR REVIEWED THE PROPOSED ATLREG PLAN PRESENTED BY UE WITNESS WARNER BAXTER?

A Yes, I have.

Q DO YOU AGREE WITH THE CONCEPT OF AN ALTREG PLAN?

A Yes. In general, the concept of an AltReg plan (sometimes also referred to as Performance Based Ratemaking – PBR, or incentive regulation) is something which I endorse. Conceptually, the idea is to provide the utility with more meaningful incentives to improve its performance by allowing it to share to some extent in the benefits that result from enhanced performance. If the plan works, the result will be that consumers pay lower rates than they otherwise would have, while utility common stockholders are allowed to earn higher returns than they otherwise would have. This sharing of the benefits is what makes the concept attractive.

That said, it is important to recognize that, as with many other things, the "devil is in the details." The plans must be structured in a way to give reasonable confidence to the utility, the consumers and the regulator that the plan actually delivers the intended benefits; and it must be capable of reasonable implementation.

Q DO YOU AGREE WITH UE'S PROPOSAL TO ESTABLISH A THREE-YEAR TERM, FROM JULY 1, 2002 THROUGH JUNE 30, 2005, FOR AN ATLREG PLAN?

A Yes. I believe this is a reasonable length of time.

Q DO YOU AGREE WITH UE'S PROPOSAL TO IMPLEMENT A $15 MILLION PERMANENT RATE REDUCTION EFFECTIVE APRIL 1, 2002?

A No. The permanent rate reduction effective April 1, 2002, should be whatever the Commission finds is appropriate based on its evaluation of the Company's overall cost of service. The re-basing of Ameren's rates is extremely important because it has been a substantial period of time since its operations were reviewed and rates were set with the benefit of a full and complete evidentiary hearing. This re-basing, and whatever revenue adjustment is found to be appropriate, should take place prior to the beginning of the next AltReg plan.

Q WHAT IS THE STRUCTURE OF THE SHARING UNDER UE'S PROPOSED PLAN?

A UE's proposed plan has a deadband in the return on equity (ROE) between 9.5% and 10.5%. If the ROE is less than 9.5%, UE can file for a rate increase. If it is between 9.5% and 10.5%, nothing happens. For a ROE greater than 10.5% there is a proposed sharing. Under UE's plan, if ROE is between 10.5% and 12.5%, customers would receive $15 million and UE would keep the rest. For ROEs between 12.5% and 15% the portion between these points would be shared 45% to UE and 55% to customers. For earnings between 15% and 16% UE would retain 10% and 90% would go to customers. Above 16%, 0% would be retained by UE and 100% would go to customers.

Q DO YOU AGREE WITH THIS STRUCTURE?

A No, not entirely. I do not disagree with the portions that define when UE can file for a rate case, and I do not disagree with the deadband of 9.5% to 10.5% in which nothing happens. However, I disagree with the other parameters in two respects. The first disagreement is with the $15 million fixed credit if ROE is between 10.5% and 12.5%, and the second is with the construction of the sharing bands which allows UE to keep the majority of the earliest, and probably easiest to achieve, benefits; while providing customers with a larger share of the harder to achieve benefits.

Q WHAT OBJECTION DO YOU HAVE TO THE FIRST SHARING BAND, IN WHICH UE PROVIDES CUSTOMERS WITH $15 MILLION IF ITS RETURN ON EQUITY IS IN EXCESS OF 10.5%, BUT LESS THAN 12.5%?

A If UE earns only slightly more than 10.5%, say 11.0%, then a $15 million credit to consumers is probably not objectionable. However, the revenue requirement equivalent of earning 12.5%, as opposed to 10.5%, is approximately $80 million. If UE earned just less than the upper end of this range, then providing customers with $15 million would amount to only about 20% of the benefit, and UE would retain 80%. In subsequent bands, the percentage retained by UE decreases, and the percentage that goes to customers increases.

Q WHAT OBJECTIONS DO YOU HAVE TO THIS PATTERN OR SHAPE OF THE SHARING MECHANISM?

A This shape or structure, in which the largest fraction of the earnings, at earnings levels close to the threshold where earnings began to be shared, goes to UE, gives

UE the advantage of reaping the primary benefit of the easiest to achieve savings. In my opinion, this is backwards. The earlier savings are easier to achieve, and can be achieved with less effort on UE's part than can the additional savings which produce the higher returns on equity. In my view, it would be appropriate for a larger percentage of the easier to achieve savings to go to consumers and a smaller percentage to UE. This means that as earnings increase, UE would be allowed to keep a larger percentage of these harder to achieve benefits. This gives UE the proper incentive to "stretch" and to, in fact, spend additional capital (if that is necessary) to achieve these greater savings. Since these greater savings come with higher effort (and perhaps capital investment) by UE, it is only appropriate that UE be allowed to retain a larger percentage of them.

Q ARE THERE ANY SIMILAR INCENTIVE PROGRAMS IN EFFECT FOR UTILITIES IN THE UNITED STATES?

A Yes. For example, one such program is that in place for San Diego Gas & Electric Company (SDG&E). This is described at Page 20 of UE's "White Paper" on incentive regulation that has been filed in this proceeding.

Q WHAT TYPE OF SHARING BAND STRUCTURE DOES THE SDG&E INCENTIVE PLAN HAVE?

A The SDG&E incentive plan has a multi-tiered structure for its sharing bands. The largest percentage goes to the consumers for the band nearest the point of no sharing, with the taper or sharing percentage going to the consumer decreasing (and the percentage going to the utility increasing) as the rate of return increases.

Q PLEASE DESCRIBE THE SDG&E SHARING BANDS AND PERCENTAGES.

A In the SDG&E plan, the structure is based on return on rate base, rather than return on equity. However, assuming a 50% common equity ratio the rate of return basis points can be translated to ROE basis points. The following table makes this conversion and shows the percentage going to shareholders and the percentage going to customers in the various sharing bands above the point where no actions take place.

San Diego Gas & Electric Company
Sharing Bands in PBR

Band	ROE Basis Points	Shareholder Percentages	Customer Percentages
Deadband	0 – 50	100%	0%
1	50 – 100	25	75
2	100 – 150	25	75
3	150 – 200	35	65
4	200 – 250	45	55
5	250 – 300	55	45
6	300 – 350	65	35
7	350 – 400	75	25
8	400 – 500	85	15
9	500 – 600	95	5
Over	600+	100	0

As is clearly shown in the above, beyond the deadband the customer percentage begins at 75% and tapers down to 0% at a level of 600 basis points above the edge of the deadband.

In my opinion, this form of structure is more appropriate for an AltReg plan than the structure proposed by UE.

Q SHOULD THERE BE ANY GUIDELINES OR LIMITATIONS CONCERNING THE PERCENTAGE OF EQUITY IN THE CAPITAL STRUCTURE USED TO EVALUATE EARNINGS UNDER AN ALTREG PLAN?

A Yes. As Mr. Gorman discusses in his testimony, UE's equity as a percentage of total capital has increased to where it is now significantly above industry or peer group norms. For the same reasons expressed by Mr. Gorman in his discussion of a fair rate of return for determining revenue requirements for the test year under consideration, a limitation or maximum percentage of equity in capital structure should be imposed as a part of the evaluation procedure under any AltReg plan that may be adopted. The limitation adopted should be consistent with the Commission's findings with respect to this issue for purposes of determining test year revenue requirements.

Q DO YOU HAVE ANY OTHER COMMENTS CONCERNING THE PROPOSED ALTREG PLAN?

A Yes. As part of its recommendations, UE proposes that if a three-year AltReg plan is adopted, that a docket be established by February 1, 2005 to evaluate the AltReg plan and to consider whether or not the plan should be extended in some form, or should be allowed to end. I don't necessarily disagree with this recommendation, but I also think that there should be a provision in any adopted plan that would provide that the final year of the AltReg plan would be the test year for the next rate proceeding which would be used to evaluate the AltReg plan and also, potentially, to adjust rates from that point forward. This is important because it will provide for an orderly transition, and avoid the conflict recently experienced with respect to test year, the filing of a complaint case, and related issues.

Also, I note that the Company proposes to allocate any annual credits under the AltReg plan on a per kilowatthour basis. This is similar to the program currently in effect, and does very little to move rates closer to cost of service. If that method is adopted in any AltReg plan, then it is imperative that a meaningful movement toward cost of service be made during the course of this proceeding.

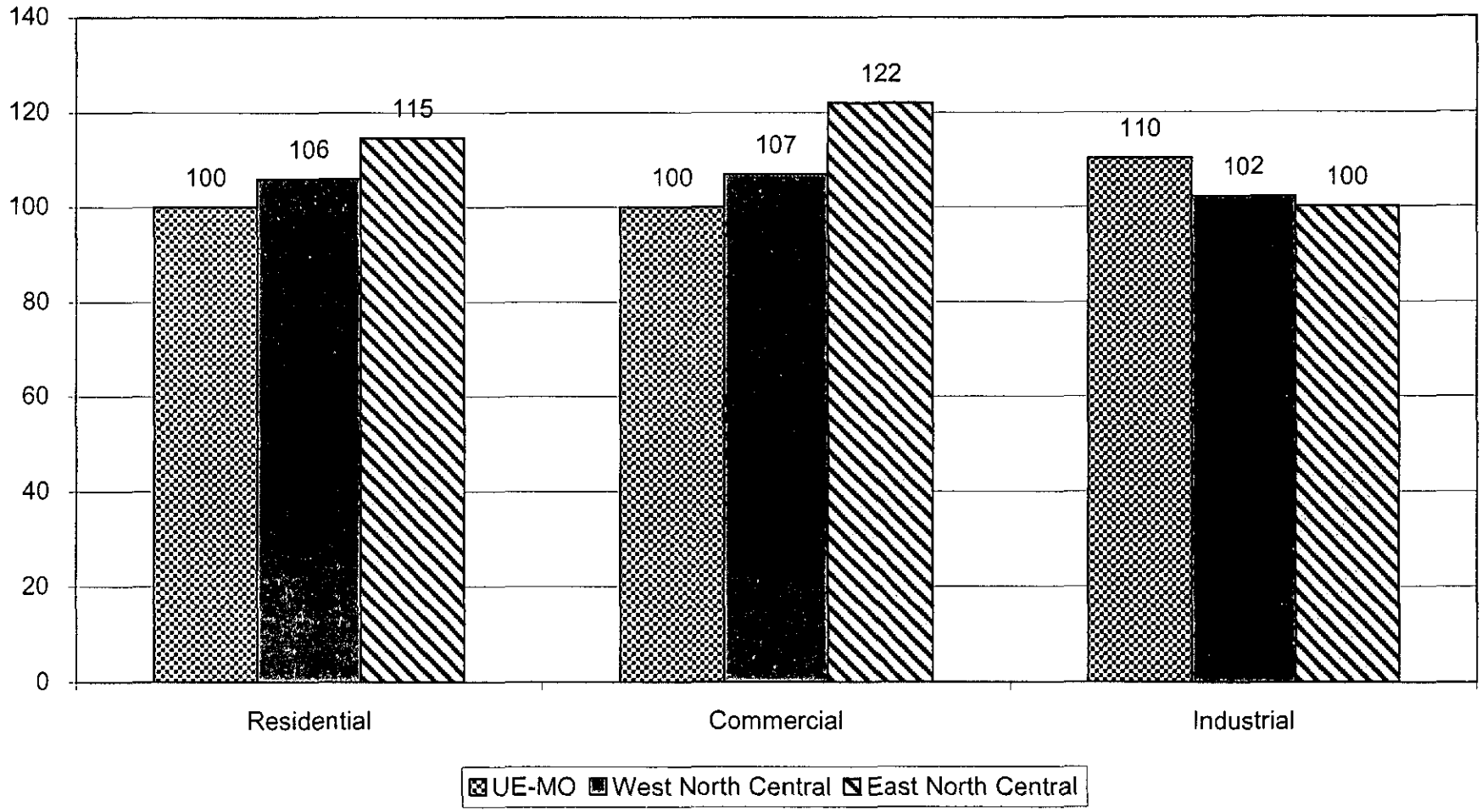
Finally, I wish to indicate that the fact that I have not addressed a particular feature in the proposed AltReg plan should not be interpreted as either agreement or disagreement.

Q DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A Yes, it does.

MEB:cs/7651/29879

Evaluation of Rate Comparisons - 2000
Class Rate Expressed as a Percent of Lowest



Source: Schedule 9 attached to the rebuttal testimony of Richard Kovach.

Schedule 1
Surrebuttal

AMEREN UE

Proposed Allocation of Revenue Decrease to Classes (Dollars in Thousands)

Line	Description	Missouri Total (1)	Residential (2)	Small General Service (3)	Large General Service (4)	Small Primary Service (5)	Large Primary Service (6)
1	Current Revenue *	$ 1,773,762	$ 786,445	$ 226,660	$ 393,395	$ 204,361	$ 162,901
2	Adjusted Revenue at Equal COS *	$ 1,773,762	$ 867,085	$ 216,535	$ 373,097	$ 171,822	$ 145,223
3	Revenue Change to Equal COS	$ -	$ 80,640	$ (10,125)	$ (20,298)	$ (32,539)	$ (17,678)
4	Recommended Allocation of $250 Million Decrease	$ (250,000)	$ (122,210)	$ (30,519)	$ (52,586)	$ (24,217)	$ (20,468)
5	Revenue after COS Adjustment and $250 Million Decrease	$ 1,523,762	$ 744,875	$ 186,016	$ 320,511	$ 147,605	$ 124,755
	Change from Current Revenue:						
6	Amount	$ (250,000)	$ (41,570)	$ (40,644)	$ (72,884)	$ (56,756)	$ (38,146)
7	Percent	-14.09%	-5.29%	-17.93%	-18.53%	-27.77%	-23.42%
8	Recommended Allocation of $187.5 Million Decrease	$ (187,500)	$ (31,177)	$ (30,483)	$ (54,663)	$ (42,567)	$ (28,610)
9	Percent	-10.57%	-3.96%	-13.45%	-13.90%	-20.83%	-17.56%
10	Recommended Allocation of $125 Million Decrease	$ (125,000)	$ (20,785)	$ (20,322)	$ (36,442)	$ (28,378)	$ (19,073)
11	Percent	-7.05%	-2.64%	-8.97%	-9.26%	-13.89%	-11.71%
12	Recommended Allocation of $62.5 Million Decrease	$ (62,500)	$ (10,392)	$ (10,161)	$ (18,221)	$ (14,189)	$ (9,537)
13	Percent	-3.52%	-1.32%	-4.48%	-4.63%	-6.94%	-5.85%

* From Rebuttal Testimony of Richard J. Kovach, Schedule 6

Schedule 2
Surrebuttal

AMEREN UE

Proposed Alternate Allocation of Revenue Decrease to Classes
(Dollars in Thousands)

Line	Description	Missouri Total (1)	Residential (2)	Small General Service (3)	Large General Service (4)	Small Primary Service (5)	Large Primary Service (6)
1	Current Revenue *	$ 1,773,762	$ 786,445	$ 226,660	$ 393,395	$ 204,361	$ 162,901
	Increase/Decrease Needed to Move Half-way to Cost of Service:						
2	Percent *		5.13%	-2.23%	-2.58%	-7.96%	-5.43%
3	Amount	$ -	$ 40,320	$ (5,063)	$ (10,149)	$ (16,270)	$ (8,839)
4	Revenue with Half-way Move to Equal COS	$ 1,773,762	$ 826,765	$ 221,598	$ 383,246	$ 188,092	$ 154,062
5	Revenue Change to Equal COS	$ -	$ 40,320	$ (5,063)	$ (10,149)	$ (16,270)	$ (8,839)
6	Recommended Allocation of $250 Million Decrease	$ (250,000)	$ (116,527)	$ (31,233)	$ (54,016)	$ (26,510)	$ (21,714)
7	Revenue after COS Adjustment and $250 Million Decrease	$ 1,523,762	$ 710,238	$ 190,365	$ 329,230	$ 161,581	$ 132,348
	Change from Current Revenue:						
8	Amount	$ (250,000)	$ (76,207)	$ (36,295)	$ (64,165)	$ (42,780)	$ (30,553)
9	Percent	-14.09%	-9.69%	-16.01%	-16.31%	-20.93%	-18.76%
10	Recommended Allocation of $187.5 Million Decrease	$ (187,500)	$ (57,155)	$ (27,221)	$ (48,124)	$ (32,085)	$ (22,915)
11	Percent	-10.57%	-7.27%	-12.01%	-12.23%	-15.70%	-14.07%
12	Recommended Allocation of $125 Million Decrease	$ (125,000)	$ (38,104)	$ (18,148)	$ (32,082)	$ (21,390)	$ (15,277)
13	Percent	-7.05%	-4.85%	-8.01%	-8.16%	-10.47%	-9.38%
14	Recommended Allocation of $62.5 Million Decrease	$ (62,500)	$ (19,052)	$ (9,074)	$ (16,041)	$ (10,695)	$ (7,638)
15	Percent	-3.52%	-2.42%	-4.00%	-4.08%	-5.23%	-4.69%

* From Rebuttal Testimony of Richard J. Kovach, Schedule 6

Schedule 3
Surrebuttal

Exhibit No.
Witness: Maurice Brubaker
Type of Exhibit: Surrebuttal Testimony
Sponsoring Party: Missouri Industrial Energy Consumers
Case No. EC-2002-1
Subjects: Revenue Allocation/Rate Design, Rate Comparisons, Alternative Regulation Plan

Before the
Missouri Public Service Commission

Staff of the Missouri Public Service Commission	)	
Complainant	)	
v.	)	**Case No. EC-2002-1**
Union Electric Company, d/b/a AmerenUE	)	
Respondent.	)	

Surrebuttal Testimony of

Maurice Brubaker

On Behalf of

Missouri Industrial Energy Consumers

June 24, 2002
Project 7651

BRUBAKER & ASSOCIATES, INC.
ST. LOUIS, MO 63141-2000

Before the Public Service Commission
of the State of Missouri

Staff of the Missouri Public Service Commission	)	
Complainant	)	
v.	)	**Case No. EC-2002-1**
Union Electric Company, d/b/a AmerenUE	)	
Respondent.	)	

STATE OF MISSOURI)
) **SS**
COUNTY OF ST. LOUIS)

Surrebuttal Affidavit of Maurice Brubaker

Maurice Brubaker, being first duly sworn, on his oath states:

1. My name is Maurice Brubaker. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000. We have been retained by the Missouri Industrial Energy Consumers in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes is my surrebuttal testimony which was prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. EC-2002-1.

3. I hereby swear and affirm that the surrebuttal testimony is true and correct and shows the matters and things it purports to show.

Maurice Brubaker

Subscribed and sworn to before this 21st day of June 2002.

CAROL SCHULZ
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis County
My Commission Expires: Feb. 26, 2004

Notary Public

My Commission Expires February 26, 2004.

Before the
Missouri Public Service Commission

Staff of the Missouri Public Service Commission	)	
Complainant	)	
v.	)	**Case No. EC-2002-1**
Union Electric Company, d/b/a AmerenUE	)	
Respondent.	)	

Surrebuttal Testimony of Maurice Brubaker

1 **Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A Maurice Brubaker. My business address is 1215 Fern Ridge Parkway, Suite 208,
3 St. Louis, Missouri 63141-2000.

4 **Q ARE YOU THE SAME MAURICE BRUBAKER WHO HAS PREVIOUSLY**
5 **SUBMITTED REBUTTAL TESTIMONY IN THIS PROCEEDING?**

6 A Yes.

7 **Q WHAT IS THE SUBJECT OF YOUR SURREBUTTAL TESTIMONY?**

8 A In this surrebuttal testimony I will address certain of the rate design proposals
9 contained in AmerenUE's (UE or Company) rebuttal testimony and will update my
10 recommended class revenue allocation using the test year class cost of service study
11 submitted by UE as a basis. I will then comment on certain rate comparison exhibits
12 presented by various UE witnesses.

In addition, I will offer certain comments with respect to selected aspects of the Alternative Regulation (AltReg) plan advanced by UE through its witness Warner Baxter.

RIDER E

Q HAVE YOU REVIEWED THE TESTIMONY OF UE WITNESS KOVACH AT PAGES 102-107, AND HIS ACCOMPANYING SCHEDULE 16?

A Yes. This testimony and schedule presents an alternative form of Rider E, which is intended to replace the current Rider E. Rider E effectively provides backup service to customers operating generation facilities in parallel with the UE system.

Q DOES MIEC SUPPORT MODIFICATIONS TO RIDER E ALONG THE LINES SUGGESTED BY MR. KOVACH?

A No, certainly not at this time.

Q WHY DOES MIEC TAKE THIS POSITION?

A The Company has proposed quite extensive changes in Rider E. These changes could have a significant impact on the cost of electricity to a customer operating generation in parallel with the UE system. I understand that UE has not quantified the impact of this significant change in Rider E on any of its affected customers, and that it does not have the information necessary to make an accurate determination. Furthermore, it has not included the revenue effect of this change in its overall cost of service or its rate design. To the extent that additional revenues would be produced by this proposed revised Rider E, it would be a windfall to UE since the assumption in

UE's cost of service determination is that there is no change in revenues from Rider E customers.

Q WHAT INFORMATION WOULD BE NECESSARY TO CALCULATE THE IMPACT OF THIS TARIFF?

A Several items of information would be required. This includes the amount of standby capacity that customers would want to subscribe to, and the outage characteristics of the generation units for which backup service is being provided. In my discussions with UE personnel, it was indicated that UE did not have the data necessary to make the impact calculations. Preliminary information provided by UE indicates potentially large increases.

Accordingly, it is MIEC's recommendation that the proposed changes to Rider E be rejected.

Q PUTTING ASIDE, FOR THE MOMENT, THE QUESTION OF WHETHER THERE SHOULD BE ANY CHANGE IN RIDER E AT THIS TIME, DO YOU AGREE IN GENERAL WITH THE METHODOLOGY EMPLOYED BY UE?

A I agree with some aspects of the methodology, but I believe that the rate is too high, its provisions are too restrictive, and it is incomplete.

Q PLEASE ELABORATE.

A In general, I agree with the concept of an on-going charge for backup demand, but believe that the level proposed by UE is too high. Also, while I agree with the idea of pro-rating the demand charge to price standby service when used, UE would limit the proration to half of the days in the month, while I see no basis for anything other than

a daily proration regardless of the number of days that service is used during the month.

Also, UE does not make a distinction between backup (forced outage) service and scheduled maintenance service. I believe that a lower price should be charged for scheduled maintenance that is coordinated with and approved by the utility. In terms of the energy charges, UE proposes to add $5.00 per megawatthour on top of the regular energy charge. I disagree with this because standby customers would already be paying a share of the embedded cost of the entire generation system through the reservation charge and pro-rated use charge.

In addition, the tariff specifies that the generator backup demand will be based on the nameplate capacity of a customer's self-generation equipment. There are many reasons why this level of backup capacity is inappropriate.

Q PLEASE ADDRESS THE ISSUE OF THE LEVEL OF THE GENERATOR BACKUP DEMAND CHARGE?

A UE has proposed a charge of $1.82 per kW. This is based on the idea that Ameren maintains roughly an 18% reserve margin. UE has multiplied this times its unbundled production demand cost of roughly $10 per kW to arrive at a charge of $1.82 per kW-month. There are two problems with this number. First, the reserves are already included in the $10 charge, so that applying 18% on top of this charge effectively overstates the price. The correct number under this theory should be approximately $1.50 per kW.

More fundamentally, however, is the problem that the standby charge is proposed to be based on the reserve margin required for utility generation systems, which consist of large units that have a lower degree of reliability than do many self-

generation or cogeneration units. Experience shows that it is not unusual for customer-installed generation units to be extremely reliable, and to have forced outage rates of 5% or less. The expected load that a standby customer would place on a utility system is equal to the forced outage rate times the capacity of the generation for which standby service is provided. This is a probabilistic concept, and is very similar to how utility system required reserve margins are analyzed. In general, the higher the forced outage rate, the higher the required reserve margin.

A 20-megawatt generator, with a 5% forced outage rate, would have an expected load, at any hour, including the hour of system peak, of 1 megawatt (20 MW x 5%). Of course, in many hours the load will be zero, and in other hours it will be 20 megawatts. The 20 megawatts will be imposed when the generator is experiencing a full forced outage. Examined over an extended period of time, there would be months when the generator outage would coincide with a system monthly or annual peak load, and other times when the requirement would be zero. On average, however, the expected value is 5% of the capacity, or 1 MW.

Thus, with a forced outage rate of 5%, we would expect a load equal to 5% of the amount of the standby power. Applying this to the $10 generation cost (approximately) produces a reasonable standby charge of 50¢ per kW-month.

Q WHAT HAPPENS IF A GENERATOR IS LESS RELIABLE?

A This is covered fully by the daily proration of the demand charge. In the case of a $10 production demand cost, customers utilizing standby would pay for that use on a daily pro-rated basis, equal to approximately $10 per kW divided by 20 weekdays per month, or 50¢ per kW-day. A less reliable generator would, obviously, use standby more than a highly reliable generator and accordingly would pay a higher amount of

standby cost to UE. For example, a customer not using standby at all during the month would pay the 50¢ per kW reservation charge. A customer using standby power for five days in the month would pay for five days of use, or 50¢ per kW-day times five days equals $2.50. This is appropriate and a methodology widely employed in the industry.

In designing an appropriate on-going standby charge, it is important to be sure that highly reliable customers are not over-charged. UE's proposal would effectively over-charge any customers with a degree of reliability better than the utility average that formed the basis for the utility's 18% reserve margin. Since customers pay for standby use on an as-used basis, less reliable cogenerators will automatically pay more than cogenerators who are more reliable. However, since the minimum that can be paid is the on-going monthly charge, a highly reliable cogenerator would be over-charged under UE's tariff.

If the objective is to charge customers in proportion to the cost that they impose, then the on-going charge should be not more than that which is necessary to recover the costs associated with providing standby to the most reliable unit being served on the system. We do not know what that is, but we know from experience that many cogenerators have forced outage rates of 5% or less. Accordingly, it is appropriate to establish the on-going charge at 50¢ per kW-month and to charge for standby on an as-used basis in order to recover additional costs from the less reliable customers.

Q IN UE'S APPLICATION OF THIS GENERAL METHODOLOGY, DOES IT PROVIDE FOR PRO-RATION ACROSS THE ENTIRE MONTH?

A No. UE only prorates until a customer has effectively used backup service for one-half of the days in a month. If this service is used for more days, the full firm rate demand charge must be paid. It is unusual to limit the use of service in this fashion. Most tariffs prorate on a daily basis across the entire month. Thus, a customer having a major forced outage that would require the use of standby for an entire month would pay the full demand cost for that month.

Q HOW SHOULD SCHEDULED MAINTENANCE BE HANDLED?

A Scheduled maintenance that is pre-arranged with, and approved by, the utility should be less costly than forced outage service since the timing can be fit into the utility's load and maintenance schedule. I recommend that the charge for prescheduled maintenance service be set at 50% of the price for forced outage service, or 25¢ per kW-day. This recognizes the lower cost incurred when generator maintenance can be scheduled in coordination with the utility system maintenance plan. It also gives the customer an incentive to schedule the maintenance in coordination with the utility, and encourages the utility to fit the maintenance requirements into its schedule.

Q PLEASE COMMENT ON THE ENERGY CHARGE.

A UE wants to charge the same energy charge as is in the regular tariff, but add $5 per megawatthour to all energy utilized for standby purposes. Since the customer would be essentially paying the full average demand cost for the generation facilities, on a pro-rated basis, I do not see any reason to charge more than the regular tariff energy charge for this service. Alternatively, if UE wants to charge a higher energy price, then it should not charge any generation demand charge.

Q UE HAS PROPOSED THAT THE GENERATOR BACKUP DEMAND BE APPLIED TO THE NAMEPLATE RATING OF THE CUSTOMER'S SELF-GENERATION EQUIPMENT. IS THIS APPROPRIATE?

A No, it is not appropriate. For a variety of reasons, a customer's need for standby may not equal the level of the nameplate rating of its generation facilities.

Q PLEASE ELABORATE.

A For example, a customer may not normally operate its generation facilities to the extent of its nameplate rating. A customer may have certain reserves built into its own self-generation system, to the extent that it, for example, operates 10 megawatts out of 20 megawatts of installed capacity. It may even have multiple units that back up each other.

In addition, even if a customer normally operated at nameplate capacity, it is often the case that there is a relationship between electric demand and steam demand. Thus, if a generator is lost or experiences a partial outage, the steam supply to the customer will decrease, and the electrical requirement may also decrease. Thus, even if a customer normally operates its facilities close to nameplate ratings, its need for standby service may actually be less than nameplate rating.

For all of these reasons, the customer should be allowed to designate the desired level of standby capacity. Of course, the utility should not be required to provide standby in excess of the amount designated by the customer.

PROPOSED CHANGES TO RIDER B

Q WHAT IS RIDER B?

A Rider B provides credits to customers who take service at higher voltages (i.e., above the primary voltage level), and thus allow UE to avoid certain costs.

Q HAVE YOU REVIEWED UE'S PROPOSED REDUCTIONS TO THE RIDER B CREDITS?

A Yes, I have.

Q DO YOU AGREE WITH THE REDUCTIONS IN RIDER B CREDITS PROPOSED BY UE?

A No, I do not.

Q PLEASE ELABORATE.

A There are two problems with UE's calculations. First, there are some minor calculation errors which, if corrected, would raise the proposed credit at 34.5/69 kV from 51¢ per kW-month to 53¢ per kW-month, and the credit at 138 kV service from 84¢ per kW-month to 87¢ per kW-month. As indicated, these appear just to be calculational errors.

The second problem is much more significant.

Q PLEASE EXPLAIN.

A UE's analysis correctly reflects the fact that the losses in delivery of energy are lower at high voltages than at lower voltages, and provides a corresponding credit. However, UE has failed to reflect this characteristic on the demand side. The same

loss factor percentages that UE applied to the energy charges should also be applied to the primary service rate demand charges. The proposed demand charge in the large primary service rate is approximately $10 per kW-month. For service at the 34.5/69 kV voltage level the 2.1% loss factor should be applied to produce an additional demand-related credit of 22¢ per kW-month. This is appropriate because customers taking service at the 34.5/69 kV level impose less generation costs, per kilowatt of metered demand, on UE than do customers taking service at lower voltage levels.

Similarly, when service is taken at the 138 kV level, additional losses are avoided, to the extent that an additional credit of approximately 17¢ per kW-month should be provided.

Q PLEASE SUMMARIZE YOUR FINAL RECOMMENDATIONS WITH RESPECT TO RIDER B CREDITS.

A For service at 34.5/69 kV UE's proposed rate of 51¢ should be corrected to reflect accurate calculations, to produce 53¢ per kW-month. To this should be added 22¢ per kW-month to properly reflect losses on the demand side. This produces a final Rider B credit of 75¢ per kW-month.

At the 138 kV level, UE's proposed Rider B credit of 84¢ per kW should first be corrected to 87¢ per kW. Then, 39¢ per kW should be added to reflect avoidance of losses on the demand side. This produces a final Rider B credit of $1.26 per kW-month.

RATE COMPARISONS

Q HAVE YOU REVIEWED THE RATE COMPARISONS SHOWN ON SCHEDULE 9 ATTACHED TO MR. KOVACH'S TESTIMONY?

A Yes, I have. This comparison is of UE's average residential, commercial and industrial tariffs with the west north-central region and the east north-central region.

Q WHAT DOES THIS INFORMATION SHOW WITH RESPECT TO THE RELATIONSHIP AMONG RESIDENTIAL, COMMERCIAL AND INDUSTRIAL PRICES?

A Using UE's data, Schedule 1 shows a comparison of the relative level of the residential, commercial and industrial rates as among UE-Missouri, the West North-Central region and the East North-Central region. Note that the residential and commercial customers in the Ameren service area have, according to UE's presentation, the lowest rates among the three groups, whereas the industrial customers have the highest rates among the three groups. This is consistent with the rate comparison data that I presented as part of my rebuttal testimony, and also consistent with my comments concerning the disproportionately high level of UE's industrial rates when compared to its residential and commercial rates.

Q PLEASE COMMENT ON THE RATE COMPARISONS SHOWN ON SCHEDULE 2-1 ATTACHED TO THE TESTIMONY OF UE WITNESS WEISMAN.

A These comparisons are for residential customers only, and for a selected group of cities. While it shows that the average residential electricity cost for St. Louis is next to the lowest, there is nothing particularly surprising about these rankings.

Q PLEASE EXPLAIN.

A First, Seattle has the lowest cost. This is no surprise at all because Seattle benefits from a substantial amount of relatively low-cost hydroelectric generation. St. Louis is ranked second lowest, but this is also not a surprise because St. Louis has the second lowest Consumer Price Index (CPI), as published by the Bureau of Labor Statistics, of all of the cities shown. (Note, in these comparisons we have excluded data for the Washington-Baltimore area because CPI data with a comparable base year could not be found.)

Also, the six highest residential electricity cost cities, namely Chicago, Philadelphia, Boston, New York, San Francisco and Los Angeles, are also the cities with the highest CPIs. (The exception is Seattle, which is about in the middle of this group, but which has low electric rates because of the unique feature of significant hydro resources.)

What is to be concluded from all this is nothing more than the obvious: some places are more expensive to live than others. While electricity is less expensive in St. Louis than in places like Chicago, Philadelphia, Boston, New York, San Francisco and Los Angeles, so is most everything else that you want to buy or consume. I doubt very much that St. Louis residents who work in the downtown area would judge the reasonableness of their level of parking rates by comparing them to the cost of parking a car in New York City.

Q PLEASE COMMENT ON THE RATE COMPARISON DATA SHOWN ON SCHEDULES 2-2 AND 2-3 ATTACHED TO THE TESTIMONY OF UE WITNESS WEISMAN.

A The data on these two charts is similar to the data on Schedule 2-1. It is based on aggregated values from groups of undisclosed cities with various population levels. And, like the data on Schedule 2-1, it shows only the residential customer class. No attempt has been made to show any comparisons for commercial or industrial customers.

REVENUE ALLOCATION BASED ON CURRENT CLASS COST OF SERVICE STUDY

Q HAVE YOU REVIEWED THE UPDATED COST OF SERVICE STUDY PRESENTED BY UE WITNESSES KOVACH AND WARWICK?

A Yes. UE has presented a test year cost of service study using the average and excess - four noncoincident peak method. This is the same basis for the cost of service study that I used in conjunction with my rebuttal testimony.

Q HAVE YOU UPDATED YOUR REVENUE ALLOCATION RECOMMENDATIONS UTILIZING THIS COST OF SERVICE STUDY?

A Yes, I have. Schedule 2 shows the allocation based on full movement to cost of service at a $250 million revenue reduction level, and Schedule 3 shows movement 50% of the way toward cost of service at a $250 million revenue reduction level. These correspond to Schedules 3 and 4, respectively, attached to my rebuttal testimony.

Q ARE THE RESULTS OF THE UPDATED STUDY COMPARABLE?

A Yes. They are very comparable. For example, for the residential class at 100% movement to cost of service the original study showed a 4.58% decrease if the

overall decrease were $250 million, whereas the updated study shows a decrease of 5.29%.

The biggest difference is between the large general service class and the small primary service class. The updated study shows a somewhat smaller relative decrease for the small primary class, and a somewhat larger relative decrease for the small primary service class.

ALTERNATIVE REGULATION PLAN

Q HAVE YOUR REVIEWED THE PROPOSED ATLREG PLAN PRESENTED BY UE WITNESS WARNER BAXTER?

A Yes, I have.

Q DO YOU AGREE WITH THE CONCEPT OF AN ALTREG PLAN?

A Yes. In general, the concept of an AltReg plan (sometimes also referred to as Performance Based Ratemaking – PBR, or incentive regulation) is something which I endorse. Conceptually, the idea is to provide the utility with more meaningful incentives to improve its performance by allowing it to share to some extent in the benefits that result from enhanced performance. If the plan works, the result will be that consumers pay lower rates than they otherwise would have, while utility common stockholders are allowed to earn higher returns than they otherwise would have. This sharing of the benefits is what makes the concept attractive.

That said, it is important to recognize that, as with many other things, the "devil is in the details." The plans must be structured in a way to give reasonable confidence to the utility, the consumers and the regulator that the plan actually delivers the intended benefits; and it must be capable of reasonable implementation.

Q DO YOU AGREE WITH UE'S PROPOSAL TO ESTABLISH A THREE-YEAR TERM, FROM JULY 1, 2002 THROUGH JUNE 30, 2005, FOR AN ATLREG PLAN?

A Yes. I believe this is a reasonable length of time.

Q DO YOU AGREE WITH UE'S PROPOSAL TO IMPLEMENT A $15 MILLION PERMANENT RATE REDUCTION EFFECTIVE APRIL 1, 2002?

A No. The permanent rate reduction effective April 1, 2002, should be whatever the Commission finds is appropriate based on its evaluation of the Company's overall cost of service. The re-basing of Ameren's rates is extremely important because it has been a substantial period of time since its operations were reviewed and rates were set with the benefit of a full and complete evidentiary hearing. This re-basing, and whatever revenue adjustment is found to be appropriate, should take place prior to the beginning of the next AltReg plan.

Q WHAT IS THE STRUCTURE OF THE SHARING UNDER UE'S PROPOSED PLAN?

A UE's proposed plan has a deadband in the return on equity (ROE) between 9.5% and 10.5%. If the ROE is less than 9.5%, UE can file for a rate increase. If it is between 9.5% and 10.5%, nothing happens. For a ROE greater than 10.5% there is a proposed sharing. Under UE's plan, if ROE is between 10.5% and 12.5%, customers would receive $15 million and UE would keep the rest. For ROEs between 12.5% and 15% the portion between these points would be shared 45% to UE and 55% to customers. For earnings between 15% and 16% UE would retain 10% and 90% would go to customers. Above 16%, 0% would be retained by UE and 100% would go to customers.

Q DO YOU AGREE WITH THIS STRUCTURE?

A No, not entirely. I do not disagree with the portions that define when UE can file for a rate case, and I do not disagree with the deadband of 9.5% to 10.5% in which nothing happens. However, I disagree with the other parameters in two respects. The first disagreement is with the $15 million fixed credit if ROE is between 10.5% and 12.5%, and the second is with the construction of the sharing bands which allows UE to keep the majority of the earliest, and probably easiest to achieve, benefits; while providing customers with a larger share of the harder to achieve benefits.

Q WHAT OBJECTION DO YOU HAVE TO THE FIRST SHARING BAND, IN WHICH UE PROVIDES CUSTOMERS WITH $15 MILLION IF ITS RETURN ON EQUITY IS IN EXCESS OF 10.5%, BUT LESS THAN 12.5%?

A If UE earns only slightly more than 10.5%, say 11.0%, then a $15 million credit to consumers is probably not objectionable. However, the revenue requirement equivalent of earning 12.5%, as opposed to 10.5%, is approximately $80 million. If UE earned just less than the upper end of this range, then providing customers with $15 million would amount to only about 20% of the benefit, and UE would retain 80%. In subsequent bands, the percentage retained by UE decreases, and the percentage that goes to customers increases.

Q WHAT OBJECTIONS DO YOU HAVE TO THIS PATTERN OR SHAPE OF THE SHARING MECHANISM?

A This shape or structure, in which the largest fraction of the earnings, at earnings levels close to the threshold where earnings began to be shared, goes to UE, gives

UE the advantage of reaping the primary benefit of the easiest to achieve savings. In my opinion, this is backwards. The earlier savings are easier to achieve, and can be achieved with less effort on UE's part than can the additional savings which produce the higher returns on equity. In my view, it would be appropriate for a larger percentage of the easier to achieve savings to go to consumers and a smaller percentage to UE. This means that as earnings increase, UE would be allowed to keep a larger percentage of these harder to achieve benefits. This gives UE the proper incentive to "stretch" and to, in fact, spend additional capital (if that is necessary) to achieve these greater savings. Since these greater savings come with higher effort (and perhaps capital investment) by UE, it is only appropriate that UE be allowed to retain a larger percentage of them.

Q ARE THERE ANY SIMILAR INCENTIVE PROGRAMS IN EFFECT FOR UTILITIES IN THE UNITED STATES?

A Yes. For example, one such program is that in place for San Diego Gas & Electric Company (SDG&E). This is described at Page 20 of UE's "White Paper" on incentive regulation that has been filed in this proceeding.

Q WHAT TYPE OF SHARING BAND STRUCTURE DOES THE SDG&E INCENTIVE PLAN HAVE?

A The SDG&E incentive plan has a multi-tiered structure for its sharing bands. The largest percentage goes to the consumers for the band nearest the point of no sharing, with the taper or sharing percentage going to the consumer decreasing (and the percentage going to the utility increasing) as the rate of return increases.

Q PLEASE DESCRIBE THE SDG&E SHARING BANDS AND PERCENTAGES.

A In the SDG&E plan, the structure is based on return on rate base, rather than return on equity. However, assuming a 50% common equity ratio the rate of return basis points can be translated to ROE basis points. The following table makes this conversion and shows the percentage going to shareholders and the percentage going to customers in the various sharing bands above the point where no actions take place.

San Diego Gas & Electric Company
Sharing Bands in PBR

Band	ROE Basis Points	Shareholder Percentages	Customer Percentages
Deadband	0 – 50	100%	0%
1	50 – 100	25	75
2	100 – 150	25	75
3	150 – 200	35	65
4	200 – 250	45	55
5	250 – 300	55	45
6	300 – 350	65	35
7	350 – 400	75	25
8	400 – 500	85	15
9	500 – 600	95	5
Over	600+	100	0

As is clearly shown in the above, beyond the deadband the customer percentage begins at 75% and tapers down to 0% at a level of 600 basis points above the edge of the deadband.

In my opinion, this form of structure is more appropriate for an AltReg plan than the structure proposed by UE.

Q SHOULD THERE BE ANY GUIDELINES OR LIMITATIONS CONCERNING THE PERCENTAGE OF EQUITY IN THE CAPITAL STRUCTURE USED TO EVALUATE EARNINGS UNDER AN ALTREG PLAN?

A Yes. As Mr. Gorman discusses in his testimony, UE's equity as a percentage of total capital has increased to where it is now significantly above industry or peer group norms. For the same reasons expressed by Mr. Gorman in his discussion of a fair rate of return for determining revenue requirements for the test year under consideration, a limitation or maximum percentage of equity in capital structure should be imposed as a part of the evaluation procedure under any AltReg plan that may be adopted. The limitation adopted should be consistent with the Commission's findings with respect to this issue for purposes of determining test year revenue requirements.

Q DO YOU HAVE ANY OTHER COMMENTS CONCERNING THE PROPOSED ALTREG PLAN?

A Yes. As part of its recommendations, UE proposes that if a three-year AltReg plan is adopted, that a docket be established by February 1, 2005 to evaluate the AltReg plan and to consider whether or not the plan should be extended in some form, or should be allowed to end. I don't necessarily disagree with this recommendation, but I also think that there should be a provision in any adopted plan that would provide that the final year of the AltReg plan would be the test year for the next rate proceeding which would be used to evaluate the AltReg plan and also, potentially, to adjust rates from that point forward. This is important because it will provide for an orderly transition, and avoid the conflict recently experienced with respect to test year, the filing of a complaint case, and related issues.

Also, I note that the Company proposes to allocate any annual credits under the AltReg plan on a per kilowatthour basis. This is similar to the program currently in effect, and does very little to move rates closer to cost of service. If that method is adopted in any AltReg plan, then it is imperative that a meaningful movement toward cost of service be made during the course of this proceeding.

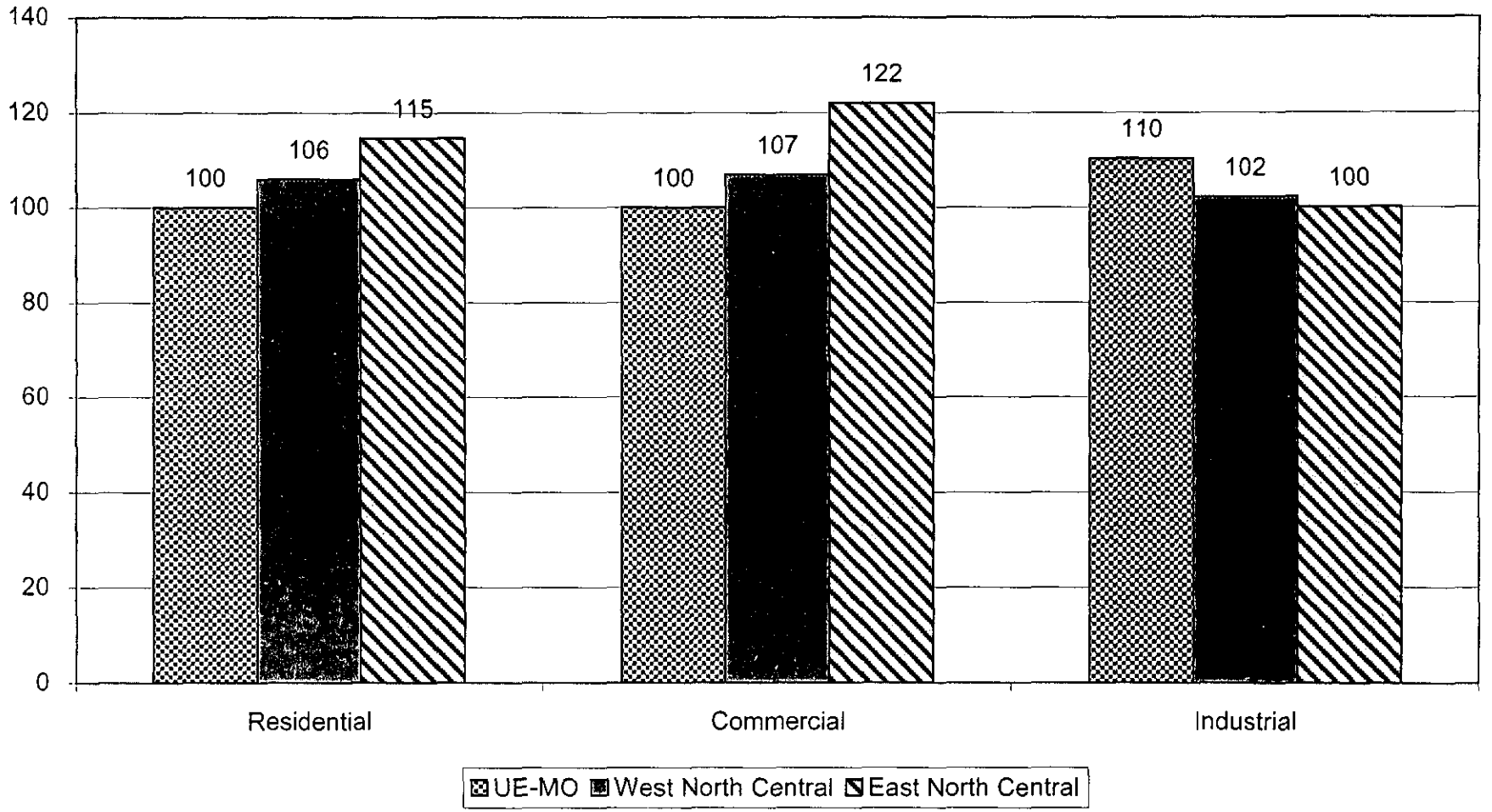
Finally, I wish to indicate that the fact that I have not addressed a particular feature in the proposed AltReg plan should not be interpreted as either agreement or disagreement.

Q DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A Yes, it does.

MEB:cs/7651/29879

Evaluation of Rate Comparisons - 2000
Class Rate Expressed as a Percent of Lowest



Source: Schedule 9 attached to the rebuttal testimony of Richard Kovach.

Schedule 1
Surrebuttal

AMEREN UE

Proposed Allocation of
Revenue Decrease to Classes
(Dollars in Thousands)

Line	Description	Missouri Total (1)	Residential (2)	Small General Service (3)	Large General Service (4)	Small Primary Service (5)	Large Primary Service (6)
1	Current Revenue *	$ 1,773,762	$ 786,445	$ 226,660	$ 393,395	$ 204,361	$ 162,901
2	Adjusted Revenue at Equal COS *	$ 1,773,762	$ 867,085	$ 216,535	$ 373,097	$ 171,822	$ 145,223
3	Revenue Change to Equal COS	$ -	$ 80,640	$ (10,125)	$ (20,298)	$ (32,539)	$ (17,678)
4	Recommended Allocation of $250 Million Decrease	$ (250,000)	$ (122,210)	$ (30,519)	$ (52,586)	$ (24,217)	$ (20,468)
5	Revenue after COS Adjustment and $250 Million Decrease	$ 1,523,762	$ 744,875	$ 186,016	$ 320,511	$ 147,605	$ 124,755
	Change from Current Revenue:						
6	Amount	$ (250,000)	$ (41,570)	$ (40,644)	$ (72,884)	$ (56,756)	$ (38,146)
7	Percent	-14.09%	-5.29%	-17.93%	-18.53%	-27.77%	-23.42%
8	Recommended Allocation of $187.5 Million Decrease	$ (187,500)	$ (31,177)	$ (30,483)	$ (54,663)	$ (42,567)	$ (28,610)
9	Percent	-10.57%	-3.96%	-13.45%	-13.90%	-20.83%	-17.56%
10	Recommended Allocation of $125 Million Decrease	$ (125,000)	$ (20,785)	$ (20,322)	$ (36,442)	$ (28,378)	$ (19,073)
11	Percent	-7.05%	-2.64%	-8.97%	-9.26%	-13.89%	-11.71%
12	Recommended Allocation of $62.5 Million Decrease	$ (62,500)	$ (10,392)	$ (10,161)	$ (18,221)	$ (14,189)	$ (9,537)
13	Percent	-3.52%	-1.32%	-4.48%	-4.63%	-6.94%	-5.85%

* From Rebuttal Testimony of Richard J. Kovach, Schedule 6

Schedule 2
Surrebuttal

AMEREN UE

Proposed Alternate Allocation of Revenue Decrease to Classes
(Dollars in Thousands)

Line	Description	Missouri Total (1)	Residential (2)	Small General Service (3)	Large General Service (4)	Small Primary Service (5)	Large Primary Service (6)
1	Current Revenue *	$ 1,773,762	$ 786,445	$ 226,660	$ 393,395	$ 204,361	$ 162,901
	Increase/Decrease Needed to Move Half-way to Cost of Service:						
2	Percent *		5.13%	-2.23%	-2.58%	-7.96%	-5.43%
3	Amount	$ -	$ 40,320	$ (5,063)	$ (10,149)	$ (16,270)	$ (8,839)
4	Revenue with Half-way Move to Equal COS	$ 1,773,762	$ 826,765	$ 221,598	$ 383,246	$ 188,092	$ 154,062
5	Revenue Change to Equal COS	$ -	$ 40,320	$ (5,063)	$ (10,149)	$ (16,270)	$ (8,839)
6	Recommended Allocation of $250 Million Decrease	$ (250,000)	$ (116,527)	$ (31,233)	$ (54,016)	$ (26,510)	$ (21,714)
7	Revenue after COS Adjustment and $250 Million Decrease	$ 1,523,762	$ 710,238	$ 190,365	$ 329,230	$ 161,581	$ 132,348
	Change from Current Revenue:						
8	Amount	$ (250,000)	$ (76,207)	$ (36,295)	$ (64,165)	$ (42,780)	$ (30,553)
9	Percent	-14.09%	-9.69%	-16.01%	-16.31%	-20.93%	-18.76%
10	Recommended Allocation of $187.5 Million Decrease	$ (187,500)	$ (57,155)	$ (27,221)	$ (48,124)	$ (32,085)	$ (22,915)
11	Percent	-10.57%	-7.27%	-12.01%	-12.23%	-15.70%	-14.07%
12	Recommended Allocation of $125 Million Decrease	$ (125,000)	$ (38,104)	$ (18,148)	$ (32,082)	$ (21,390)	$ (15,277)
13	Percent	-7.05%	-4.85%	-8.01%	-8.16%	-10.47%	-9.38%
14	Recommended Allocation of $62.5 Million Decrease	$ (62,500)	$ (19,052)	$ (9,074)	$ (16,041)	$ (10,695)	$ (7,638)
15	Percent	-3.52%	-2.42%	-4.00%	-4.08%	-5.23%	-4.69%

* *From Rebuttal Testimony of Richard J. Kovach, Schedule 6*

Schedule 3
Surrebuttal

Exhibit No.
Witness: Maurice Brubaker
Type of Exhibit: Surrebuttal Testimony
Sponsoring Party: Missouri Industrial Energy Consumers
Case No. EC-2002-1
Subjects: Revenue Allocation/Rate Design, Rate Comparisons, Alternative Regulation Plan

Before the
Missouri Public Service Commission

Staff of the Missouri Public Service Commission	)	
Complainant	)	
v.	)	**Case No. EC-2002-1**
Union Electric Company, d/b/a AmerenUE	)	
Respondent.	)	

Surrebuttal Testimony of

Maurice Brubaker

On Behalf of

Missouri Industrial Energy Consumers

June 24, 2002
Project 7651

BRUBAKER & ASSOCIATES, INC.
ST. LOUIS, MO 63141-2000

Before the Public Service Commission
of the State of Missouri

Staff of the Missouri Public Service Commission	)	
Complainant	)	
v.	)	**Case No. EC-2002-1**
Union Electric Company, d/b/a AmerenUE	)	
Respondent.	)	

STATE OF MISSOURI)
) **SS**
COUNTY OF ST. LOUIS)

Surrebuttal Affidavit of Maurice Brubaker

Maurice Brubaker, being first duly sworn, on his oath states:

1. My name is Maurice Brubaker. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000. We have been retained by the Missouri Industrial Energy Consumers in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes is my surrebuttal testimony which was prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. EC-2002-1.

3. I hereby swear and affirm that the surrebuttal testimony is true and correct and shows the matters and things it purports to show.

Maurice Brubaker

Subscribed and sworn to before this 21st day of June 2002.

CAROL SCHULZ
Notary Public - Notary Seal
STATE OF MISSOURI
St. Louis County
My Commission Expires: Feb. 26, 2004

Notary Public

My Commission Expires February 26, 2004.

Before the
Missouri Public Service Commission

Staff of the Missouri Public Service Commission	)	
Complainant	)	
v.	)	**Case No. EC-2002-1**
Union Electric Company, d/b/a AmerenUE	)	
Respondent.	)	

Surrebuttal Testimony of Maurice Brubaker

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

A Maurice Brubaker. My business address is 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000.

Q ARE YOU THE SAME MAURICE BRUBAKER WHO HAS PREVIOUSLY SUBMITTED REBUTTAL TESTIMONY IN THIS PROCEEDING?

A Yes.

Q WHAT IS THE SUBJECT OF YOUR SURREBUTTAL TESTIMONY?

A In this surrebuttal testimony I will address certain of the rate design proposals contained in AmerenUE's (UE or Company) rebuttal testimony and will update my recommended class revenue allocation using the test year class cost of service study submitted by UE as a basis. I will then comment on certain rate comparison exhibits presented by various UE witnesses.

In addition, I will offer certain comments with respect to selected aspects of the Alternative Regulation (AltReg) plan advanced by UE through its witness Warner Baxter.

RIDER E

Q HAVE YOU REVIEWED THE TESTIMONY OF UE WITNESS KOVACH AT PAGES 102-107, AND HIS ACCOMPANYING SCHEDULE 16?

A Yes. This testimony and schedule presents an alternative form of Rider E, which is intended to replace the current Rider E. Rider E effectively provides backup service to customers operating generation facilities in parallel with the UE system.

Q DOES MIEC SUPPORT MODIFICATIONS TO RIDER E ALONG THE LINES SUGGESTED BY MR. KOVACH?

A No, certainly not at this time.

Q WHY DOES MIEC TAKE THIS POSITION?

A The Company has proposed quite extensive changes in Rider E. These changes could have a significant impact on the cost of electricity to a customer operating generation in parallel with the UE system. I understand that UE has not quantified the impact of this significant change in Rider E on any of its affected customers, and that it does not have the information necessary to make an accurate determination. Furthermore, it has not included the revenue effect of this change in its overall cost of service or its rate design. To the extent that additional revenues would be produced by this proposed revised Rider E, it would be a windfall to UE since the assumption in

UE's cost of service determination is that there is no change in revenues from Rider E customers.

Q WHAT INFORMATION WOULD BE NECESSARY TO CALCULATE THE IMPACT OF THIS TARIFF?

A Several items of information would be required. This includes the amount of standby capacity that customers would want to subscribe to, and the outage characteristics of the generation units for which backup service is being provided. In my discussions with UE personnel, it was indicated that UE did not have the data necessary to make the impact calculations. Preliminary information provided by UE indicates potentially large increases.

Accordingly, it is MIEC's recommendation that the proposed changes to Rider E be rejected.

Q PUTTING ASIDE, FOR THE MOMENT, THE QUESTION OF WHETHER THERE SHOULD BE ANY CHANGE IN RIDER E AT THIS TIME, DO YOU AGREE IN GENERAL WITH THE METHODOLOGY EMPLOYED BY UE?

A I agree with some aspects of the methodology, but I believe that the rate is too high, its provisions are too restrictive, and it is incomplete.

Q PLEASE ELABORATE.

A In general, I agree with the concept of an on-going charge for backup demand, but believe that the level proposed by UE is too high. Also, while I agree with the idea of pro-rating the demand charge to price standby service when used, UE would limit the proration to half of the days in the month, while I see no basis for anything other than

a daily proration regardless of the number of days that service is used during the month.

Also, UE does not make a distinction between backup (forced outage) service and scheduled maintenance service. I believe that a lower price should be charged for scheduled maintenance that is coordinated with and approved by the utility. In terms of the energy charges, UE proposes to add $5.00 per megawatthour on top of the regular energy charge. I disagree with this because standby customers would already be paying a share of the embedded cost of the entire generation system through the reservation charge and pro-rated use charge.

In addition, the tariff specifies that the generator backup demand will be based on the nameplate capacity of a customer's self-generation equipment. There are many reasons why this level of backup capacity is inappropriate.

Q PLEASE ADDRESS THE ISSUE OF THE LEVEL OF THE GENERATOR BACKUP DEMAND CHARGE?

A UE has proposed a charge of $1.82 per kW. This is based on the idea that Ameren maintains roughly an 18% reserve margin. UE has multiplied this times its unbundled production demand cost of roughly $10 per kW to arrive at a charge of $1.82 per kW-month. There are two problems with this number. First, the reserves are already included in the $10 charge, so that applying 18% on top of this charge effectively overstates the price. The correct number under this theory should be approximately $1.50 per kW.

More fundamentally, however, is the problem that the standby charge is proposed to be based on the reserve margin required for utility generation systems, which consist of large units that have a lower degree of reliability than do many self-

generation or cogeneration units. Experience shows that it is not unusual for customer-installed generation units to be extremely reliable, and to have forced outage rates of 5% or less. The expected load that a standby customer would place on a utility system is equal to the forced outage rate times the capacity of the generation for which standby service is provided. This is a probabilistic concept, and is very similar to how utility system required reserve margins are analyzed. In general, the higher the forced outage rate, the higher the required reserve margin.

A 20-megawatt generator, with a 5% forced outage rate, would have an expected load, at any hour, including the hour of system peak, of 1 megawatt (20 MW x 5%). Of course, in many hours the load will be zero, and in other hours it will be 20 megawatts. The 20 megawatts will be imposed when the generator is experiencing a full forced outage. Examined over an extended period of time, there would be months when the generator outage would coincide with a system monthly or annual peak load, and other times when the requirement would be zero. On average, however, the expected value is 5% of the capacity, or 1 MW.

Thus, with a forced outage rate of 5%, we would expect a load equal to 5% of the amount of the standby power. Applying this to the $10 generation cost (approximately) produces a reasonable standby charge of 50¢ per kW-month.

Q WHAT HAPPENS IF A GENERATOR IS LESS RELIABLE?

A This is covered fully by the daily proration of the demand charge. In the case of a $10 production demand cost, customers utilizing standby would pay for that use on a daily pro-rated basis, equal to approximately $10 per kW divided by 20 weekdays per month, or 50¢ per kW-day. A less reliable generator would, obviously, use standby more than a highly reliable generator and accordingly would pay a higher amount of

standby cost to UE. For example, a customer not using standby at all during the month would pay the 50¢ per kW reservation charge. A customer using standby power for five days in the month would pay for five days of use, or 50¢ per kW-day times five days equals $2.50. This is appropriate and a methodology widely employed in the industry.

In designing an appropriate on-going standby charge, it is important to be sure that highly reliable customers are not over-charged. UE's proposal would effectively over-charge any customers with a degree of reliability better than the utility average that formed the basis for the utility's 18% reserve margin. Since customers pay for standby use on an as-used basis, less reliable cogenerators will automatically pay more than cogenerators who are more reliable. However, since the minimum that can be paid is the on-going monthly charge, a highly reliable cogenerator would be over-charged under UE's tariff.

If the objective is to charge customers in proportion to the cost that they impose, then the on-going charge should be not more than that which is necessary to recover the costs associated with providing standby to the most reliable unit being served on the system. We do not know what that is, but we know from experience that many cogenerators have forced outage rates of 5% or less. Accordingly, it is appropriate to establish the on-going charge at 50¢ per kW-month and to charge for standby on an as-used basis in order to recover additional costs from the less reliable customers.

Q IN UE'S APPLICATION OF THIS GENERAL METHODOLOGY, DOES IT PROVIDE FOR PRO-RATION ACROSS THE ENTIRE MONTH?

A No. UE only prorates until a customer has effectively used backup service for one-half of the days in a month. If this service is used for more days, the full firm rate demand charge must be paid. It is unusual to limit the use of service in this fashion. Most tariffs prorate on a daily basis across the entire month. Thus, a customer having a major forced outage that would require the use of standby for an entire month would pay the full demand cost for that month.

Q HOW SHOULD SCHEDULED MAINTENANCE BE HANDLED?

A Scheduled maintenance that is pre-arranged with, and approved by, the utility should be less costly than forced outage service since the timing can be fit into the utility's load and maintenance schedule. I recommend that the charge for prescheduled maintenance service be set at 50% of the price for forced outage service, or 25¢ per kW-day. This recognizes the lower cost incurred when generator maintenance can be scheduled in coordination with the utility system maintenance plan. It also gives the customer an incentive to schedule the maintenance in coordination with the utility, and encourages the utility to fit the maintenance requirements into its schedule.

Q PLEASE COMMENT ON THE ENERGY CHARGE.

A UE wants to charge the same energy charge as is in the regular tariff, but add $5 per megawatthour to all energy utilized for standby purposes. Since the customer would be essentially paying the full average demand cost for the generation facilities, on a pro-rated basis, I do not see any reason to charge more than the regular tariff energy charge for this service. Alternatively, if UE wants to charge a higher energy price, then it should not charge any generation demand charge.

Q UE HAS PROPOSED THAT THE GENERATOR BACKUP DEMAND BE APPLIED TO THE NAMEPLATE RATING OF THE CUSTOMER'S SELF-GENERATION EQUIPMENT. IS THIS APPROPRIATE?

A No, it is not appropriate. For a variety of reasons, a customer's need for standby may not equal the level of the nameplate rating of its generation facilities.

Q PLEASE ELABORATE.

A For example, a customer may not normally operate its generation facilities to the extent of its nameplate rating. A customer may have certain reserves built into its own self-generation system, to the extent that it, for example, operates 10 megawatts out of 20 megawatts of installed capacity. It may even have multiple units that back up each other.

In addition, even if a customer normally operated at nameplate capacity, it is often the case that there is a relationship between electric demand and steam demand. Thus, if a generator is lost or experiences a partial outage, the steam supply to the customer will decrease, and the electrical requirement may also decrease. Thus, even if a customer normally operates its facilities close to nameplate ratings, its need for standby service may actually be less than nameplate rating.

For all of these reasons, the customer should be allowed to designate the desired level of standby capacity. Of course, the utility should not be required to provide standby in excess of the amount designated by the customer.

PROPOSED CHANGES TO RIDER B

Q WHAT IS RIDER B?

A Rider B provides credits to customers who take service at higher voltages (i.e., above the primary voltage level), and thus allow UE to avoid certain costs.

Q HAVE YOU REVIEWED UE'S PROPOSED REDUCTIONS TO THE RIDER B CREDITS?

A Yes, I have.

Q DO YOU AGREE WITH THE REDUCTIONS IN RIDER B CREDITS PROPOSED BY UE?

A No, I do not.

Q PLEASE ELABORATE.

A There are two problems with UE's calculations. First, there are some minor calculation errors which, if corrected, would raise the proposed credit at 34.5/69 kV from 51¢ per kW-month to 53¢ per kW-month, and the credit at 138 kV service from 84¢ per kW-month to 87¢ per kW-month. As indicated, these appear just to be calculational errors.

The second problem is much more significant.

Q PLEASE EXPLAIN.

A UE's analysis correctly reflects the fact that the losses in delivery of energy are lower at high voltages than at lower voltages, and provides a corresponding credit. However, UE has failed to reflect this characteristic on the demand side. The same

loss factor percentages that UE applied to the energy charges should also be applied to the primary service rate demand charges. The proposed demand charge in the large primary service rate is approximately $10 per kW-month. For service at the 34.5/69 kV voltage level the 2.1% loss factor should be applied to produce an additional demand-related credit of 22¢ per kW-month. This is appropriate because customers taking service at the 34.5/69 kV level impose less generation costs, per kilowatt of metered demand, on UE than do customers taking service at lower voltage levels.

Similarly, when service is taken at the 138 kV level, additional losses are avoided, to the extent that an additional credit of approximately 17¢ per kW-month should be provided.

Q PLEASE SUMMARIZE YOUR FINAL RECOMMENDATIONS WITH RESPECT TO RIDER B CREDITS.

A For service at 34.5/69 kV UE's proposed rate of 51¢ should be corrected to reflect accurate calculations, to produce 53¢ per kW-month. To this should be added 22¢ per kW-month to properly reflect losses on the demand side. This produces a final Rider B credit of 75¢ per kW-month.

At the 138 kV level, UE's proposed Rider B credit of 84¢ per kW should first be corrected to 87¢ per kW. Then, 39¢ per kW should be added to reflect avoidance of losses on the demand side. This produces a final Rider B credit of $1.26 per kW-month.

RATE COMPARISONS

Q HAVE YOU REVIEWED THE RATE COMPARISONS SHOWN ON SCHEDULE 9 ATTACHED TO MR. KOVACH'S TESTIMONY?

A Yes, I have. This comparison is of UE's average residential, commercial and industrial tariffs with the west north-central region and the east north-central region.

Q WHAT DOES THIS INFORMATION SHOW WITH RESPECT TO THE RELATIONSHIP AMONG RESIDENTIAL, COMMERCIAL AND INDUSTRIAL PRICES?

A Using UE's data, Schedule 1 shows a comparison of the relative level of the residential, commercial and industrial rates as among UE-Missouri, the West North-Central region and the East North-Central region. Note that the residential and commercial customers in the Ameren service area have, according to UE's presentation, the lowest rates among the three groups, whereas the industrial customers have the highest rates among the three groups. This is consistent with the rate comparison data that I presented as part of my rebuttal testimony, and also consistent with my comments concerning the disproportionately high level of UE's industrial rates when compared to its residential and commercial rates.

Q PLEASE COMMENT ON THE RATE COMPARISONS SHOWN ON SCHEDULE 2-1 ATTACHED TO THE TESTIMONY OF UE WITNESS WEISMAN.

A These comparisons are for residential customers only, and for a selected group of cities. While it shows that the average residential electricity cost for St. Louis is next to the lowest, there is nothing particularly surprising about these rankings.

Q PLEASE EXPLAIN.

A First, Seattle has the lowest cost. This is no surprise at all because Seattle benefits from a substantial amount of relatively low-cost hydroelectric generation. St. Louis is ranked second lowest, but this is also not a surprise because St. Louis has the second lowest Consumer Price Index (CPI), as published by the Bureau of Labor Statistics, of all of the cities shown. (Note, in these comparisons we have excluded data for the Washington-Baltimore area because CPI data with a comparable base year could not be found.)

Also, the six highest residential electricity cost cities, namely Chicago, Philadelphia, Boston, New York, San Francisco and Los Angeles, are also the cities with the highest CPIs. (The exception is Seattle, which is about in the middle of this group, but which has low electric rates because of the unique feature of significant hydro resources.)

What is to be concluded from all this is nothing more than the obvious: some places are more expensive to live than others. While electricity is less expensive in St. Louis than in places like Chicago, Philadelphia, Boston, New York, San Francisco and Los Angeles, so is most everything else that you want to buy or consume. I doubt very much that St. Louis residents who work in the downtown area would judge the reasonableness of their level of parking rates by comparing them to the cost of parking a car in New York City.

Q PLEASE COMMENT ON THE RATE COMPARISON DATA SHOWN ON SCHEDULES 2-2 AND 2-3 ATTACHED TO THE TESTIMONY OF UE WITNESS WEISMAN.

A The data on these two charts is similar to the data on Schedule 2-1. It is based on aggregated values from groups of undisclosed cities with various population levels. And, like the data on Schedule 2-1, it shows only the residential customer class. No attempt has been made to show any comparisons for commercial or industrial customers.

REVENUE ALLOCATION BASED ON CURRENT CLASS COST OF SERVICE STUDY

Q HAVE YOU REVIEWED THE UPDATED COST OF SERVICE STUDY PRESENTED BY UE WITNESSES KOVACH AND WARWICK?

A Yes. UE has presented a test year cost of service study using the average and excess - four noncoincident peak method. This is the same basis for the cost of service study that I used in conjunction with my rebuttal testimony.

Q HAVE YOU UPDATED YOUR REVENUE ALLOCATION RECOMMENDATIONS UTILIZING THIS COST OF SERVICE STUDY?

A Yes, I have. Schedule 2 shows the allocation based on full movement to cost of service at a $250 million revenue reduction level, and Schedule 3 shows movement 50% of the way toward cost of service at a $250 million revenue reduction level. These correspond to Schedules 3 and 4, respectively, attached to my rebuttal testimony.

Q ARE THE RESULTS OF THE UPDATED STUDY COMPARABLE?

A Yes. They are very comparable. For example, for the residential class at 100% movement to cost of service the original study showed a 4.58% decrease if the

overall decrease were $250 million, whereas the updated study shows a decrease of 5.29%.

The biggest difference is between the large general service class and the small primary service class. The updated study shows a somewhat smaller relative decrease for the small primary class, and a somewhat larger relative decrease for the small primary service class.

ALTERNATIVE REGULATION PLAN

Q HAVE YOUR REVIEWED THE PROPOSED ATLREG PLAN PRESENTED BY UE WITNESS WARNER BAXTER?

A Yes, I have.

Q DO YOU AGREE WITH THE CONCEPT OF AN ALTREG PLAN?

A Yes. In general, the concept of an AltReg plan (sometimes also referred to as Performance Based Ratemaking – PBR, or incentive regulation) is something which I endorse. Conceptually, the idea is to provide the utility with more meaningful incentives to improve its performance by allowing it to share to some extent in the benefits that result from enhanced performance. If the plan works, the result will be that consumers pay lower rates than they otherwise would have, while utility common stockholders are allowed to earn higher returns than they otherwise would have. This sharing of the benefits is what makes the concept attractive.

That said, it is important to recognize that, as with many other things, the "devil is in the details." The plans must be structured in a way to give reasonable confidence to the utility, the consumers and the regulator that the plan actually delivers the intended benefits; and it must be capable of reasonable implementation.

Q DO YOU AGREE WITH UE'S PROPOSAL TO ESTABLISH A THREE-YEAR TERM, FROM JULY 1, 2002 THROUGH JUNE 30, 2005, FOR AN ATLREG PLAN?

A Yes. I believe this is a reasonable length of time.

Q DO YOU AGREE WITH UE'S PROPOSAL TO IMPLEMENT A $15 MILLION PERMANENT RATE REDUCTION EFFECTIVE APRIL 1, 2002?

A No. The permanent rate reduction effective April 1, 2002, should be whatever the Commission finds is appropriate based on its evaluation of the Company's overall cost of service. The re-basing of Ameren's rates is extremely important because it has been a substantial period of time since its operations were reviewed and rates were set with the benefit of a full and complete evidentiary hearing. This re-basing, and whatever revenue adjustment is found to be appropriate, should take place prior to the beginning of the next AltReg plan.

Q WHAT IS THE STRUCTURE OF THE SHARING UNDER UE'S PROPOSED PLAN?

A UE's proposed plan has a deadband in the return on equity (ROE) between 9.5% and 10.5%. If the ROE is less than 9.5%, UE can file for a rate increase. If it is between 9.5% and 10.5%, nothing happens. For a ROE greater than 10.5% there is a proposed sharing. Under UE's plan, if ROE is between 10.5% and 12.5%, customers would receive $15 million and UE would keep the rest. For ROEs between 12.5% and 15% the portion between these points would be shared 45% to UE and 55% to customers. For earnings between 15% and 16% UE would retain 10% and 90% would go to customers. Above 16%, 0% would be retained by UE and 100% would go to customers.

Q DO YOU AGREE WITH THIS STRUCTURE?

A No, not entirely. I do not disagree with the portions that define when UE can file for a rate case, and I do not disagree with the deadband of 9.5% to 10.5% in which nothing happens. However, I disagree with the other parameters in two respects. The first disagreement is with the $15 million fixed credit if ROE is between 10.5% and 12.5%, and the second is with the construction of the sharing bands which allows UE to keep the majority of the earliest, and probably easiest to achieve, benefits; while providing customers with a larger share of the harder to achieve benefits.

Q WHAT OBJECTION DO YOU HAVE TO THE FIRST SHARING BAND, IN WHICH UE PROVIDES CUSTOMERS WITH $15 MILLION IF ITS RETURN ON EQUITY IS IN EXCESS OF 10.5%, BUT LESS THAN 12.5%?

A If UE earns only slightly more than 10.5%, say 11.0%, then a $15 million credit to consumers is probably not objectionable. However, the revenue requirement equivalent of earning 12.5%, as opposed to 10.5%, is approximately $80 million. If UE earned just less than the upper end of this range, then providing customers with $15 million would amount to only about 20% of the benefit, and UE would retain 80%. In subsequent bands, the percentage retained by UE decreases, and the percentage that goes to customers increases.

Q WHAT OBJECTIONS DO YOU HAVE TO THIS PATTERN OR SHAPE OF THE SHARING MECHANISM?

A This shape or structure, in which the largest fraction of the earnings, at earnings levels close to the threshold where earnings began to be shared, goes to UE, gives

UE the advantage of reaping the primary benefit of the easiest to achieve savings. In my opinion, this is backwards. The earlier savings are easier to achieve, and can be achieved with less effort on UE's part than can the additional savings which produce the higher returns on equity. In my view, it would be appropriate for a larger percentage of the easier to achieve savings to go to consumers and a smaller percentage to UE. This means that as earnings increase, UE would be allowed to keep a larger percentage of these harder to achieve benefits. This gives UE the proper incentive to "stretch" and to, in fact, spend additional capital (if that is necessary) to achieve these greater savings. Since these greater savings come with higher effort (and perhaps capital investment) by UE, it is only appropriate that UE be allowed to retain a larger percentage of them.

Q ARE THERE ANY SIMILAR INCENTIVE PROGRAMS IN EFFECT FOR UTILITIES IN THE UNITED STATES?

A Yes. For example, one such program is that in place for San Diego Gas & Electric Company (SDG&E). This is described at Page 20 of UE's "White Paper" on incentive regulation that has been filed in this proceeding.

Q WHAT TYPE OF SHARING BAND STRUCTURE DOES THE SDG&E INCENTIVE PLAN HAVE?

A The SDG&E incentive plan has a multi-tiered structure for its sharing bands. The largest percentage goes to the consumers for the band nearest the point of no sharing, with the taper or sharing percentage going to the consumer decreasing (and the percentage going to the utility increasing) as the rate of return increases.

Q PLEASE DESCRIBE THE SDG&E SHARING BANDS AND PERCENTAGES.

A In the SDG&E plan, the structure is based on return on rate base, rather than return on equity. However, assuming a 50% common equity ratio the rate of return basis points can be translated to ROE basis points. The following table makes this conversion and shows the percentage going to shareholders and the percentage going to customers in the various sharing bands above the point where no actions take place.

San Diego Gas & Electric Company
Sharing Bands in PBR

Band	ROE Basis Points	Shareholder Percentages	Customer Percentages
Deadband	0 – 50	100%	0%
1	50 – 100	25	75
2	100 – 150	25	75
3	150 – 200	35	65
4	200 – 250	45	55
5	250 – 300	55	45
6	300 – 350	65	35
7	350 – 400	75	25
8	400 – 500	85	15
9	500 – 600	95	5
Over	600+	100	0

As is clearly shown in the above, beyond the deadband the customer percentage begins at 75% and tapers down to 0% at a level of 600 basis points above the edge of the deadband.

In my opinion, this form of structure is more appropriate for an AltReg plan than the structure proposed by UE.

Q SHOULD THERE BE ANY GUIDELINES OR LIMITATIONS CONCERNING THE PERCENTAGE OF EQUITY IN THE CAPITAL STRUCTURE USED TO EVALUATE EARNINGS UNDER AN ALTREG PLAN?

A Yes. As Mr. Gorman discusses in his testimony, UE's equity as a percentage of total capital has increased to where it is now significantly above industry or peer group norms. For the same reasons expressed by Mr. Gorman in his discussion of a fair rate of return for determining revenue requirements for the test year under consideration, a limitation or maximum percentage of equity in capital structure should be imposed as a part of the evaluation procedure under any AltReg plan that may be adopted. The limitation adopted should be consistent with the Commission's findings with respect to this issue for purposes of determining test year revenue requirements.

Q DO YOU HAVE ANY OTHER COMMENTS CONCERNING THE PROPOSED ALTREG PLAN?

A Yes. As part of its recommendations, UE proposes that if a three-year AltReg plan is adopted, that a docket be established by February 1, 2005 to evaluate the AltReg plan and to consider whether or not the plan should be extended in some form, or should be allowed to end. I don't necessarily disagree with this recommendation, but I also think that there should be a provision in any adopted plan that would provide that the final year of the AltReg plan would be the test year for the next rate proceeding which would be used to evaluate the AltReg plan and also, potentially, to adjust rates from that point forward. This is important because it will provide for an orderly transition, and avoid the conflict recently experienced with respect to test year, the filing of a complaint case, and related issues.

Also, I note that the Company proposes to allocate any annual credits under the AltReg plan on a per kilowatthour basis. This is similar to the program currently in effect, and does very little to move rates closer to cost of service. If that method is adopted in any AltReg plan, then it is imperative that a meaningful movement toward cost of service be made during the course of this proceeding.

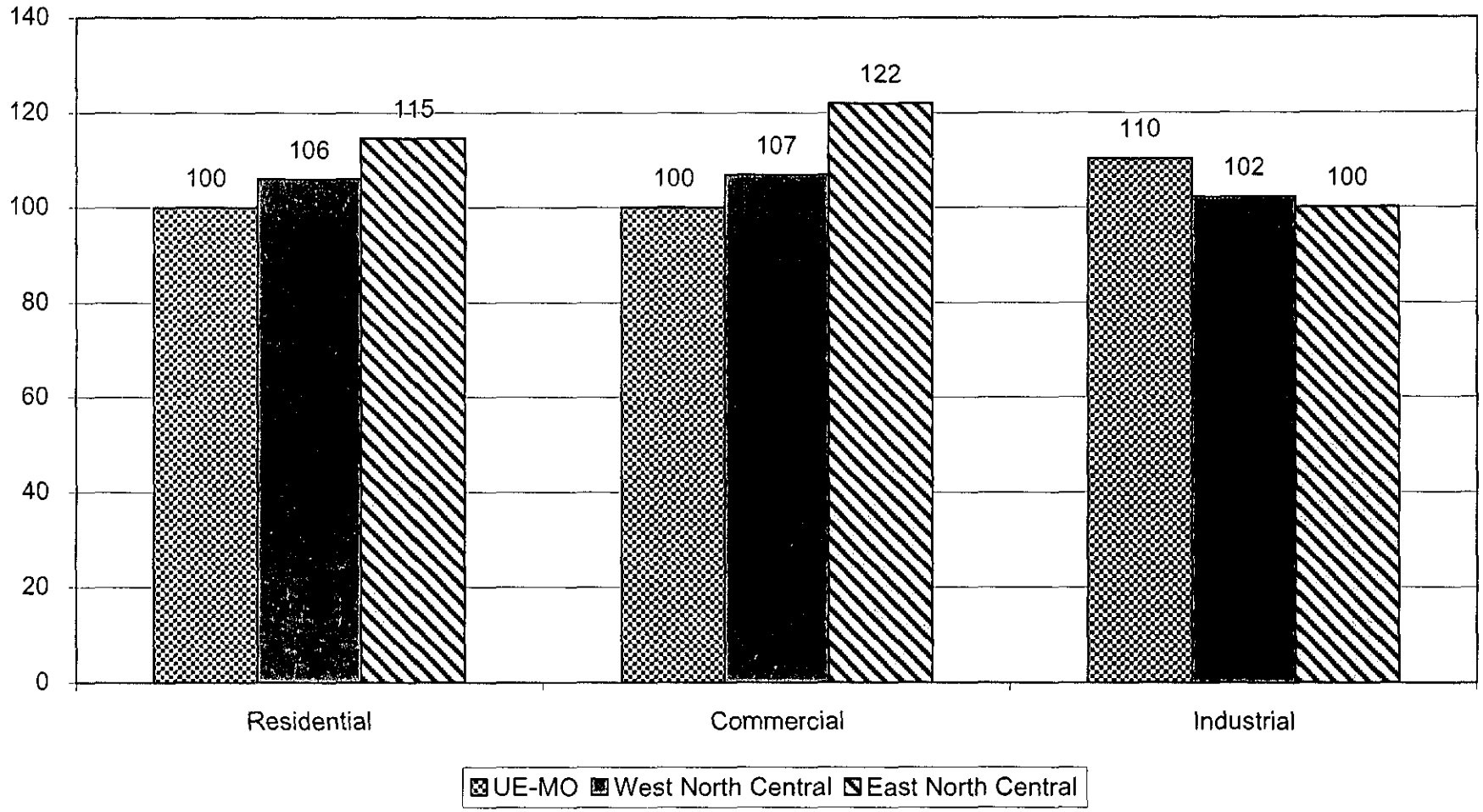
Finally, I wish to indicate that the fact that I have not addressed a particular feature in the proposed AltReg plan should not be interpreted as either agreement or disagreement.

Q DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

A Yes, it does.

MEB:cs/7651/29879

Evaluation of Rate Comparisons - 2000
Class Rate Expressed as a Percent of Lowest



Source: Schedule 9 attached to the rebuttal testimony of Richard Kovach.

Schedule 1
Surrebuttal

AMEREN UE

Proposed Allocation of Revenue Decrease to Classes (Dollars in Thousands)

Line	Description	Missouri Total (1)	Residential (2)	Small General Service (3)	Large General Service (4)	Small Primary Service (5)	Large Primary Service (6)
1	Current Revenue *	$ 1,773,762	$ 786,445	$ 226,660	$ 393,395	$ 204,361	$ 162,901
2	Adjusted Revenue at Equal COS *	$ 1,773,762	$ 867,085	$ 216,535	$ 373,097	$ 171,822	$ 145,223
3	Revenue Change to Equal COS	$ -	$ 80,640	$ (10,125)	$ (20,298)	$ (32,539)	$ (17,678)
4	Recommended Allocation of $250 Million Decrease	$ (250,000)	$ (122,210)	$ (30,519)	$ (52,586)	$ (24,217)	$ (20,468)
5	Revenue after COS Adjustment and $250 Million Decrease	$ 1,523,762	$ 744,875	$ 186,016	$ 320,511	$ 147,605	$ 124,755
	Change from Current Revenue:						
6	Amount	$ (250,000)	$ (41,570)	$ (40,644)	$ (72,884)	$ (56,756)	$ (38,146)
7	Percent	-14.09%	-5.29%	-17.93%	-18.53%	-27.77%	-23.42%
8	Recommended Allocation of $187.5 Million Decrease	$ (187,500)	$ (31,177)	$ (30,483)	$ (54,663)	$ (42,567)	$ (28,610)
9	Percent	-10.57%	-3.96%	-13.45%	-13.90%	-20.83%	-17.56%
10	Recommended Allocation of $125 Million Decrease	$ (125,000)	$ (20,785)	$ (20,322)	$ (36,442)	$ (28,378)	$ (19,073)
11	Percent	-7.05%	-2.64%	-8.97%	-9.26%	-13.89%	-11.71%
12	Recommended Allocation of $62.5 Million Decrease	$ (62,500)	$ (10,392)	$ (10,161)	$ (18,221)	$ (14,189)	$ (9,537)
13	Percent	-3.52%	-1.32%	-4.48%	-4.63%	-6.94%	-5.85%

* From Rebuttal Testimony of Richard J. Kovach, Schedule 6

Schedule 2
Surrebuttal

AMEREN UE

Proposed Alternate Allocation of Revenue Decrease to Classes
(Dollars in Thousands)

Line	Description	Missouri Total (1)	Residential (2)	Small General Service (3)	Large General Service (4)	Small Primary Service (5)	Large Primary Service (6)
1	Current Revenue *	$ 1,773,762	$ 786,445	$ 226,660	$ 393,395	$ 204,361	$ 162,901
	Increase/Decrease Needed to Move Half-way to Cost of Service:						
2	Percent *		5.13%	-2.23%	-2.58%	-7.96%	-5.43%
3	Amount	$ -	$ 40,320	$ (5,063)	$ (10,149)	$ (16,270)	$ (8,839)
4	Revenue with Half-way Move to Equal COS	$ 1,773,762	$ 826,765	$ 221,598	$ 383,246	$ 188,092	$ 154,062
5	Revenue Change to Equal COS	$ -	$ 40,320	$ (5,063)	$ (10,149)	$ (16,270)	$ (8,839)
6	Recommended Allocation of $250 Million Decrease	$ (250,000)	$ (116,527)	$ (31,233)	$ (54,016)	$ (26,510)	$ (21,714)
7	Revenue after COS Adjustment and $250 Million Decrease	$ 1,523,762	$ 710,238	$ 190,365	$ 329,230	$ 161,581	$ 132,348
	Change from Current Revenue:						
8	Amount	$ (250,000)	$ (76,207)	$ (36,295)	$ (64,165)	$ (42,780)	$ (30,553)
9	Percent	-14.09%	-9.69%	-16.01%	-16.31%	-20.93%	-18.76%
10	Recommended Allocation of $187.5 Million Decrease	$ (187,500)	$ (57,155)	$ (27,221)	$ (48,124)	$ (32,085)	$ (22,915)
11	Percent	-10.57%	-7.27%	-12.01%	-12.23%	-15.70%	-14.07%
12	Recommended Allocation of $125 Million Decrease	$ (125,000)	$ (38,104)	$ (18,148)	$ (32,082)	$ (21,390)	$ (15,277)
13	Percent	-7.05%	-4.85%	-8.01%	-8.16%	-10.47%	-9.38%
14	Recommended Allocation of $62.5 Million Decrease	$ (62,500)	$ (19,052)	$ (9,074)	$ (16,041)	$ (10,695)	$ (7,638)
15	Percent	-3.52%	-2.42%	-4.00%	-4.08%	-5.23%	-4.69%

* From Rebuttal Testimony of Richard J. Kovach, Schedule 6

Schedule 3
Surrebuttal