

Exhibit No.
Witness: Maurice Brubaker
Type of Exhibit: Rebuttal Testimony
Sponsoring Party: Missouri Industrial Energy Consumers
Case No. EC-2002-1
Subjects: Revenue Allocation/Rate Design

**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.	)	

Rebuttal Testimony of
Maurice Brubaker

On Behalf of
Missouri Industrial Energy Consumers

May 17, 2002
Project 7651

Exhibit No. 117
Date 7/10/02 Case No. EC-2002-1
Reporter KEM



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)

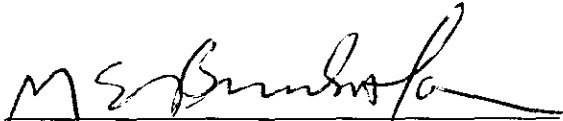
Affidavit of Maurice Brubaker

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

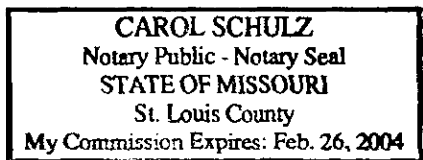
1. My name is Maurice Brubaker. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000. We have been retained by the Missouri Industrial Energy Consumers in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes is my rebuttal 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 rebuttal testimony is true and correct and shows the matters and things it purports to show.


Maurice Brubaker

Subscribed and sworn to before this 16th day of May 2002.




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.	)	

Rebuttal 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 WHAT IS YOUR OCCUPATION?**

5 A I am a consultant in the field of public utility regulation and president of Brubaker &
6 Associates, Inc. (BAI), energy, economic and regulatory consultants.

7 **Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

8 A This information is included in Appendix A to my testimony.

9 **Q ON WHOSE BEHALF ARE YOU PRESENTING REBUTTAL TESTIMONY?**

10 A I am presenting rebuttal testimony on behalf of the Missouri Industrial Energy
11 Consumers (MIEC). The MIEC Group includes many of AmerenUE's (UE or
12 Company) largest purchasers of electricity service.

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1 **Q WHAT IS THE SUBJECT OF YOUR REBUTTAL TESTIMONY?**

2 A I will offer testimony in rebuttal to the revenue allocation/rate design testimony
3 presented by Staff witnesses James Watkins and Janice Pyatte.

4 **Q ARE OTHER WITNESSES TESTIFYING ON BEHALF OF MIEC?**

5 A Yes. Mr. Michael Gorman presents testimony in response to Staff's analysis of cost
6 of capital, and Mr. James Selecky presents testimony concerning the issue of
7 negative salvage.

8 The fact that we have not addressed other adjustments or positions taken by
9 Staff should not be interpreted to mean either that we endorse those positions, or that
10 we oppose them.

11 **ALLOCATION OF REVENUE DECREASE**

12 **Q WHAT METHODOLOGY HAS MR. WATKINS OF THE STAFF PROPOSED FOR**
13 **ALLOCATING ANY REVENUE DECREASE THAT RESULTS FROM THIS**
14 **PROCEEDING?**

15 A As explained on Page 3 of his testimony, he bases his recommendations on a
16 Stipulation and Agreement (Stipulation) among the parties (subsequently approved
17 by the Commission on November 18, 1999) in UE's most recent rate design case,
18 Missouri PSC Case No. EO-96-15.

19 **Q PLEASE EXPLAIN THAT STIPULATION IN MORE DETAIL.**

20 A That Stipulation was for the purpose of determining how any rate reduction that
21 followed the end of the third year of the earnings sharing plan should be allocated
22 among customer classes. The parties agreed that the first \$25 million of any rate

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reduction should be applied to only the non-residential and non-lighting classes, and that any decrease in excess of \$25 million should be allocated as an equal percentage applied to each non-lighting class.

Q WHAT WAS THE RANGE OF RATE DECREASES BEING CONSIDERED AT THE TIME THIS STIPULATION WAS SIGNED?

A The range of decreases being considered was from approximately \$16 million on the part of UE, to approximately \$30 million on the part of the Staff.

Q SPECIFICALLY, HOW DOES STAFF PROPOSE, IN THIS CASE, TO USE THE RESULTS OF THIS STIPULATION?

A The end result of the revenue reduction at the end of the third year of the earnings sharing plan was, as shown on Schedule 6 of Staff witness Pyatte's testimony in this proceeding, approximately \$16 million. Mr. Watkins and Ms. Pyatte recommend allocating an additional amount of approximately \$9 million on an equal percentage basis to the non-residential and non-lighting customers (as in the Stipulation), and applying a uniform percentage decrease to the non-customer charge revenues of all schedules (including residential) for any additional amount of decrease.

Q IS IT REASONABLE TO CONTINUE TO APPLY THE TERMS OF THE STIPULATION FROM THE EO-96-15 PROCEEDING TO THE AMOUNT OF REVENUE DECREASE THAT MAY BE ORDERED AS A RESULT OF THIS COMPLAINT CASE?

A No, it is not. The amount of money at stake in EO-96-16 was, as noted above, within the range of \$16-\$30 million. There is certainly no logical basis to translate the

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1 results of a stipulation based on a nominal \$25 million decrease to this case, where
2 the overall decrease being proposed by Staff is roughly ten times that amount!

3 Furthermore, the Stipulation in EO-96-15 has no precedential value and no
4 bearing on this case. Section 19 of the Stipulation makes this abundantly clear.
5 Moreover, MIEC never would have agreed to the Stipulation in EO-96-15 had it been
6 expected to apply to a larger amount of revenue decrease than what was at issue in
7 the rate design case. At larger amounts of revenue decrease, the movement toward
8 cost of service is inadequate. The Commission should not utilize the Stipulation from
9 Case EO-96-15 in any way, in allocating the decrease in this proceeding.

10 **Q MR. WATKINS ATTACHES TO HIS DIRECT TESTIMONY A SUMMARY OF**
11 **STAFF'S COST OF SERVICE STUDY FROM CASE NO. EO-96-15. WHAT USE**
12 **DOES STAFF MAKE OF THIS COST OF SERVICE STUDY?**

13 **A** At Page 4 of his direct testimony Mr. Watkins refers to this study and asserts that
14 Staff's rate design recommendation in this case is consistent with the cost of serving
15 each customer class, as defined by Staff's cost of service study.

16 **Q DO YOU AGREE?**

17 **A** No. Mr. Watkins' summary shows that the residential class required a 3.37%
18 increase to reach cost of service, while the commercial and industrial customers (as a
19 group) required a 3.97% decrease. Thus, there was a 7.34 percentage point
20 difference between the two groups of customers to achieve cost of service (3.37% +
21 3.97%). In Case No. EO-96-15 this differential was lowered by 1.73 percentage
22 points as shown on Schedule 6 attached to Ms. Pyatte's testimony. This leaves a
23 5.61 percentage point differential at an overall decrease of \$25 million.

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1 None of the revenue reduction scenarios illustrated by Ms. Pyatte (ranging
2 from \$50 million to \$300 million) contain that large of a differential between the
3 decrease to the residential class and the decrease to the non-residential classes.
4 Thus, even as measured by its own yardstick, Staff's revenue reduction allocation
5 does not conform to the results of its own cost of service study.

6 **Q HOW MUCH DIFFERENTIAL IS THERE IN STAFF'S ALLOCATIONS?**

7 A To illustrate, at a \$250 million reduction, the indicated decrease for the residential
8 class is 12.5%, while the average decrease for non-residential customers is 14.5%, a
9 differential of only 2 percentage points.

10 **Q SHOULD STAFF'S COST OF SERVICE STUDY BE RELIED UPON?**

11 A No. As was extensively discussed in Case No. EO-96-15, Staff's class cost of
12 service study is unique to the Missouri PSC Staff. It is not utilized by anyone else,
13 anywhere, that I am aware of. It is not one of the methods described in the National
14 Association of Regulatory Utility Commissioners (NARUC) cost allocation manual, nor
15 has it been proposed in any other jurisdiction that I am aware of. It is far outside the
16 mainstream of accepted cost allocation methods, and has a characteristic of
17 significantly over-allocating costs to high load factor customers.

18 **Q WERE THERE OTHER COST OF SERVICE STUDIES OFFERED IN CASE NO. EO-**
19 **96-15?**

20 A Yes. MIEC and UE offered cost of service studies using traditional methodologies.
21 The traditional cost or service study most favorable to the residential class was the
22 Average and Excess – Four Non-Coincident Peak method (A&E-4NCP). Schedule 1

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1 attached to this testimony is a copy of the summary from a cost of service study using
2 the A&E-4NCP method, which I submitted in that proceeding.

3 **Q WHAT DOES IT SHOW?**

4 A It shows that when traditional methods are used there is a much greater differential
5 between the cost of service for the residential customers and the commercial/
6 industrial customers than is the case under Staff's unique methodology.

7 **Q CAN THE RESULTS OF THIS COST OF SERVICE STUDY BE USED TO**
8 **DEVELOP A METHOD FOR ALLOCATING ANY REVENUE DECREASE THAT**
9 **RESULTS FROM THIS CASE?**

10 A Yes.

11 **Q WHAT STEPS ARE NECESSARY TO USE THIS COST OF SERVICE STUDY?**

12 A The first step that is necessary is to adjust the results of the class cost of service
13 study from Case No. EO-96-15 to recognize the reduction in revenues that was
14 allocated to the non-residential, non-lighting customer classes in that proceeding.

15 Schedule 2 attached to this testimony shows the development of the adjusted
16 cost of service study. The results were developed by reducing the base rate
17 revenues from the non-residential, non-lighting groups by 1.73%. An adjustment was
18 made for income taxes, and the income tax adjustment was then allocated to
19 customer classes. A new operating income, rate of return and index of return were
20 then developed as shown on Lines 19 through 21, respectively. Line 22 shows the
21 dollar amount of increase or decrease required to move each class to cost of service
22 after recognizing that some movement toward cost of service was achieved in Case

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1 No. EO-96-15. Line 23 shows the resulting percentage increase or decrease on base
2 revenues to achieve equality with cost of service.

3 **Q USING THIS ADJUSTED COST OF SERVICE INFORMATION, HOW DO YOU**
4 **PROPOSE THAT ANY REVENUE DECREASE BE ALLOCATED TO THE**
5 **VARIOUS CUSTOMER CLASSES?**

6 A Schedule 3 attached to this testimony shows my proposed spread of any revenue
7 decrease to customer classes. I began with the current revenues from each
8 customer class, which were taken from Schedule 6 of Ms. Pyatte's testimony. Line 2
9 shows the application of the percentage increase or decrease as developed on
10 Schedule 2. That is, these are the percentage changes in revenues required to move
11 each class to cost of service assuming no overall change in revenues. Because the
12 mix of revenues between classes is different in the current test year than it was in the
13 test year used in the rate design case, applying these percentages directly does not
14 produce exactly offsetting increases and decreases. As shown on Line 3, the net
15 difference from zero is approximately \$3.3 million. Class revenues were scaled
16 proportionately to reach the adjusted revenues at present rates, assuming rates equal
17 to cost of service and no overall revenue change. The increases and decreases by
18 class are shown on Line 6.

19 **Q HOW DID YOU PROCEED FROM THIS POINT?**

20 A I then examined how a \$250 million revenue decrease would be spread. I decided
21 that if I was beginning with rates equal to cost of service it would be generally
22 reasonable to spread the decrease on an equal percentage basis. This is what is
23 shown on Line 7. When that decrease is combined with the cost of service

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adjustments shown on Line 6, the overall resulting change in class revenues is shown on Line 9.

Q HOW WOULD YOU ADJUST THIS AMOUNT IF THE DECREASE IS A NUMBER OTHER THAN \$250 MILLION?

A I would proportionately scale up this amount if the decrease is larger, and scale it down if the decrease is smaller. Lines 11 through 15 of Schedule 3 illustrate how this could be done using revenue decreases equal to 75% (Lines 11 and 12), 50% (Lines 13 and 14), or 25% (Lines 15 and 16) of this amount. With this approach, all customer classes receive a decrease at all levels of overall revenue decrease, with the difference among classes being related to differences in where class revenues are with respect to cost of service.

Q IF THE COMMISSION WANTED TO MOVE TOWARD COST OF SERVICE, BUT NOT TO THE EXTENT YOU HAVE PROPOSED, HAVE YOU PREPARED AN ALTERNATIVE?

A Yes. Schedule 4 attached to this testimony follows the same general approach but instead selects as an ending point movement 50% of the way to cost of service. All customer classes continue to receive a decrease, but the difference in the percentage decreases among customer classes is smaller than in the case of movement all the way to cost of service.

COMPETITIVENESS OF RATES

Q DO YOU HAVE ANY OTHER TESTIMONY TO OFFER CONCERNING THE DISTRIBUTION OF ANY APPROVED REVENUE DECREASE?

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1 A Yes. From the overall perspective of economic development and competitiveness,
2 the rates currently faced by industrial customers in the UE service territory in Missouri
3 are substantially above the average for the region. This is outlined on Schedule 5.
4 This information is taken from the semi-annual publications of the Edison Electric
5 Institute "Typical Bills" publication. This publication accumulates information supplied
6 by member companies of the Edison Electric Institute (investor-owned utilities) for a
7 variety of consumption levels. The data in Schedule 5 reflects a 10,000 kW customer
8 with a 68% load factor – a medium-sized industrial load. The data is shown for 51
9 service territories in and around Missouri. (For comparison we have added Black
10 River Electric Cooperative in Missouri and the Tennessee Valley Authority in the
11 Tennessee Valley area.) What this analysis shows is that the rates faced by UE
12 industrial customers in Missouri are higher than those faced by customers of any
13 other Missouri utility, and seventh highest out of the total of 51 service territories in
14 Missouri and surrounding regions.

15 Therefore, reducing the rates of industrial customers would move them into a
16 more competitive position in the region, which would be a benefit for economic
17 development.

18 Q DO THE TYPICAL BILL DATA REPORTED IN SCHEDULE 5 INCLUDE ADD-ON
19 TAXES?

20 A Yes. Most utilities include applicable add-on taxes when presenting their "typical bill"
21 data to EEI.

1 **Q DOESN'T THIS POTENTIALLY DISTORT THE RATE RELATIONSHIPS?**

2 A No. To the extent that there are add-on taxes in a given service territory, customers
3 purchasing electricity from the utility serving that area are obligated to pay those
4 taxes. Thus, adding the taxes makes for a more accurate comparison of the cost of
5 electricity among service territories.

6 However, for purposes of providing additional information, Schedule 6 shows
7 the data excluding the taxes that have been added on by the various utilities in
8 reporting their data to EEI. Although AmerenUE in Missouri fares somewhat better
9 when taxes are ignored than when they are included, its rates, especially to industrial
10 customers, continue to be quite high.

11 Furthermore, neither the EEI data shown on Schedule 5, or the adjusted data
12 shown on Schedule 6, reflect the requirement to pay sales tax on the purchase of
13 electricity. With limited exceptions, industrial customers in Missouri are obligated to
14 pay sales tax on their purchases of electricity. This adds an additional 6%-7.5% to
15 the cost of purchased electricity. This is especially relevant because in many other
16 states sales taxes are not imposed on energy purchased for manufacturing purposes.
17 Thus, if all relevant taxes were included, it is likely that the UE service territory in
18 Missouri would rank even more poorly than it does when only gross receipts types of
19 taxes are included.

20 **Q DO YOU HAVE ANY OTHER INFORMATION CONCERNING COMPARATIVE**
21 **RATES?**

22 A Yes. There has obviously been much concern about the future of the Ford Plant in
23 Hazelwood, Missouri. The Assembly Plant in Louisville, Kentucky produces the same
24 vehicles as the Hazelwood Plant. I am advised by the Ford personnel responsible for

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1 energy that the electricity rates, which they pay in Louisville, are more than 20% lower
2 than the rates that they pay to AmerenUE for the Hazelwood plant. While many
3 factors determine the overall attractiveness of a given location from an industrial
4 manufacturing perspective, it is without question that energy costs are a factor. On
5 this score, it is clear that energy costs are a significant negative factor for the
6 AmerenUE service territory in Missouri.

7 **Q IN GENERAL, HOW IS MISSOURI FARING IN RELATION TO OTHER STATES IN**
8 **THE CURRENT ECONOMIC CYCLE?**

9 A Apparently, not very well. It was reported on April 20, 2002, by Mr. Joe Driskill,
10 Director of the Department of Economic Development, that Missouri was lagging
11 behind many other states in terms of recovery from the recessionary economy.
12 Noting that Illinois, Iowa, Nebraska, Kansas, Oklahoma, Arkansas, Tennessee and
13 Kentucky were recovering or expanding, he noted that ". . . There's no clear sign that
14 the national recession's grip on Missouri has eased." This circumstance adds further
15 impetus to the need to forthrightly address all important factors that are a negative to
16 Missouri in terms of economic well-being.

17 **Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

18 A Yes, it does.

Qualifications of Maurice Brubaker

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

2 A Maurice Brubaker. My business mailing address is P. O. Box 412000, 1215 Fern
3 Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000.

4 **Q PLEASE STATE YOUR OCCUPATION.**

5 A I am a consultant in the field of public utility regulation and President of the firm of
6 Brubaker & Associates, Inc., energy, economic and regulatory consultants.

7 **Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND EXPERI-**
8 **ENCE.**

9 A I was graduated from the University of Missouri in 1965, with a Bachelor's Degree in
10 Electrical Engineering. Subsequent to graduation I was employed by the Utilities
11 Section of the Engineering and Technology Division of Esso Research and
12 Engineering Corporation of Morristown, New Jersey, a subsidiary of Standard Oil of
13 New Jersey.

14 In the Fall of 1965, I enrolled in the Graduate School of Business at
15 Washington University in St. Louis, Missouri. I was graduated in June of 1967 with
16 the Degree of Master of Business Administration. My major field was finance.

17 From March of 1966 until March of 1970, I was employed by Emerson Electric
18 Company in St. Louis. During this time I pursued the Degree of Master of Science in
19 Engineering at Washington University, which I received in June, 1970.

1 In March of 1970, I joined the firm of Drazen Associates, Inc., of St. Louis,
2 Missouri. Since that time I have been engaged in the preparation of numerous
3 studies relating to electric, gas, telephone and water utilities. These studies have
4 included analyses of the cost to serve various types of customers, the design of rates
5 for utility services, cost forecasts, cogeneration rates and determinations of rate base
6 and operating income. I have also addressed utility resource planning principles and
7 plans, reviewed capacity additions to determine whether or not they were used and
8 useful, addressed demand-side management issues independently and as part of
9 least cost planning, and have reviewed utility determinations of the need for capacity
10 additions and/or purchased power to determine the consistency of such plans with
11 least cost planning principles and the prudence of the actions undertaken.

12 I have testified before the Federal Energy Regulatory Commission (FERC),
13 various courts and legislatures, and the state regulatory commissions of Alabama,
14 Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia,
15 Guam, Hawaii, Illinois, Indiana, Iowa, Kentucky, Louisiana, Michigan, Missouri,
16 Nevada, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania,
17 Rhode Island, South Carolina, South Dakota, Texas, Utah, Virginia, West Virginia,
18 Wisconsin and Wyoming.

19 The firm of Drazen-Brubaker & Associates, Inc. was incorporated in 1972 and
20 assumed the utility rate and economic consulting activities of Drazen Associates, Inc.,
21 founded in 1937. In April, 1995 the firm of Brubaker & Associates, Inc. was formed.
22 It includes most of the former DBA principals and staff. Our staff includes consultants
23 with backgrounds in accounting, engineering, economics, mathematics, computer
24 science and business.

1 During the past ten years, Brubaker & Associates, Inc. and its predecessor
2 firm has participated in over 700 major utility rate and other cases and statewide
3 generic investigations before utility regulatory commissions in 40 states, involving
4 electric, gas, water, and steam rates and other issues. Cases in which the firm has
5 been involved have included more than 80 of the 100 largest electric utilities and over
6 30 gas distribution companies and pipelines.

7 An increasing portion of the firm's activities is concentrated in the areas of
8 competitive procurement. While the firm has always assisted its clients in negotiating
9 contracts for utility services in the regulated environment, increasingly there are
10 opportunities for certain customers to acquire power on a competitive basis from a
11 supplier other than its traditional electric utility. The firm assists clients in identifying
12 and evaluating purchased power options, conducts RFPs and negotiates with
13 suppliers for the acquisition and delivery of supplies. We have prepared option
14 studies and/or conducted RFPs for competitive acquisition of power supply for
15 industrial and other end-use customers in more than a dozen states, involving total
16 needs in excess of 2,500 megawatts.

17 In addition to our main office in St. Louis, the firm also has branch offices in
18 Kerrville, Texas; Plano, Texas; Denver, Colorado; Asheville, NC; and Chicago,
19 Illinois.

MEB:cs/7651/26298

AMEREN UE

Cost of Service Study Test Year Ended September 1996

Line	Description	Missouri Total (1)	Residential (2)	Small General Service (3)	Large General Service (4)	Small Primary Service (5)	Large Primary Service (6)	Lighting (7)
Rate Base:								
1	Gross Plant in Service	\$ 7,041,298	\$ 3,678,197	\$ 864,464	\$ 1,312,672	\$ 638,146	\$ 416,856	\$ 130,963
2	Reserves for Depreciation	(2,552,178)	(1,343,255)	(313,600)	(472,311)	(225,594)	(147,541)	(49,878)
3	Other Rate Base Items	(665,195)	(359,007)	(87,716)	(119,026)	(53,043)	(33,523)	(12,881)
4	Total Rate Base	\$ 3,823,925	\$ 1,975,934	\$ 463,148	\$ 721,336	\$ 359,510	\$ 235,793	\$ 68,204
Revenue:								
5	Base	\$ 1,678,864	\$ 742,338	\$ 214,090	\$ 363,618	\$ 200,362	\$ 134,979	\$ 23,478
6	Other	17,586	9,412	2,661	3,347	1,016	689	461
7	Total Revenue	\$ 1,696,450	\$ 751,750	\$ 216,751	\$ 366,964	\$ 201,378	\$ 135,668	\$ 23,938
Expenses:								
8	Operating & Maintenance	\$ 796,797	\$ 368,399	\$ 93,477	\$ 157,038	\$ 101,620	\$ 66,542	\$ 9,720
9	Depreciation	209,716	110,921	25,784	38,507	18,321	11,945	4,238
10	Property Taxes	78,287	40,895	9,611	14,595	7,095	4,635	1,456
11	Income Taxes	204,703	105,776	24,793	38,615	19,245	12,622	3,651
12	Payroll Taxes	19,240	9,752	2,339	3,362	2,168	1,296	323
13	Federal Excise Taxes	555	269	68	114	59	40	5
14	Total Expenses	\$ 1,309,297	\$ 636,013	\$ 156,072	\$ 252,229	\$ 148,509	\$ 97,080	\$ 19,393
15	Operating Income	\$ 387,153	\$ 115,737	\$ 60,678	\$ 114,735	\$ 52,869	\$ 38,588	\$ 4,545
16	Rate of Return	10.12%	5.86%	13.10%	15.91%	14.71%	16.37%	6.66%
17	Index	100	58	129	157	145	162	66
Increase/Decrease to Equal Cost of Service:								
18	Amount	\$ 0	\$ 84,317	\$ (13,787)	\$ (41,703)	\$ (16,471)	\$ (14,715)	\$ 2,360
19	Percent of Base Revenue	0.00%	11.36%	-6.44%	-11.47%	-8.22%	-10.90%	10.05%

Production and Transmission allocator is the Average & Excess 4NCP factor.

Source: Page 1, Schedule 7 of the Direct Testimony of Maurice Brubaker in Case No. EO-96-15 before the Missouri Public Service Commission.

AMEREN UE

Cost of Service Study from Case No. EO-96-15 Adjusted for \$16 Million Decrease Test Year Ended September 1996

Line	Description	Missouri Total (1)	Residential (2)	Small General Service (3)	Large General Service (4)	Small Primary Service (5)	Large Primary Service (6)	Lighting (7)
Rate Base:								
1	Gross Plant in Service	\$ 7,041,298	\$ 3,678,197	\$ 864,464	\$ 1,312,672	\$ 638,146	\$ 416,856	\$ 130,963
2	Reserves for Depreciation	(2,552,178)	(1,343,255)	(313,600)	(472,311)	(225,594)	(147,541)	(49,878)
3	Other Rate Base Items	(665,195)	(359,007)	(87,716)	(119,026)	(53,043)	(33,523)	(12,881)
4	Total Rate Base	\$ 3,823,925	\$ 1,975,934	\$ 463,148	\$ 721,336	\$ 359,510	\$ 235,793	\$ 68,204
Revenue:								
5	Base	\$ 1,678,864	\$ 742,338	\$ 214,090	\$ 363,618	\$ 200,362	\$ 134,979	\$ 23,478
6	\$16 Million Decrease	(15,796)	-	(3,704)	(6,291)	(3,466)	(2,335)	-
7	Other	17,586	9,412	2,661	3,347	1,016	689	461
8	Total Revenue	\$ 1,680,654	\$ 751,750	\$ 213,047	\$ 360,674	\$ 197,912	\$ 133,333	\$ 23,938
Expenses:								
9	Operating & Maintenance	\$ 796,797	\$ 368,399	\$ 93,477	\$ 157,038	\$ 101,620	\$ 66,542	\$ 9,720
10	Depreciation	209,716	110,921	25,784	38,507	18,321	11,945	4,238
11	Property Taxes	78,287	40,895	9,611	14,595	7,095	4,635	1,456
12	Income Taxes	204,703	105,776	24,793	38,615	19,245	12,622	3,651
13	Adj for Decrease	(6,045)	(3,124)	(732)	(1,140)	(568)	(373)	(108)
14	Payroll Taxes	19,240	9,752	2,339	3,362	2,168	1,296	323
15	Federal Excise Taxes	555	269	68	114	59	40	5
16	Total Expenses	\$ 1,303,252	\$ 632,889	\$ 155,340	\$ 251,089	\$ 147,940	\$ 96,707	\$ 19,285
19	Adjusted Operating Income	\$ 377,402	\$ 118,860	\$ 57,707	\$ 109,585	\$ 49,972	\$ 36,626	\$ 4,653
20	Rate of Return	9.87%	6.02%	12.46%	15.19%	13.90%	15.53%	6.82%
21	Index	100	61	126	154	141	157	69
Increase/Decrease to Equal Cost of Service:								
22	Amount	\$ 0	\$ 76,155	\$ (11,996)	\$ (38,392)	\$ (14,490)	\$ (13,354)	\$ 2,078
23	Percent of Base Revenue	0.00%	10.26%	-5.70%	-10.74%	-7.36%	-10.07%	8.85%

Production and Transmission allocator is the Average & Excess 4NCP factor.

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)	Lighting & Public Authority (7)
1	Current Revenue	\$ 1,835,982	\$ 806,432	\$ 229,944	\$ 408,658	\$ 202,676	\$ 162,582	\$ 25,690
	Increase/Decrease Needed to Equal Cost of Service:							
2	Percent *		10.26%	-5.70%	-10.74%	-7.36%	-10.07%	8.85%
3	Amount	\$ (3,299)	\$ 82,730	\$ (13,112)	\$ (43,908)	\$ (14,915)	\$ (16,368)	\$ 2,274
4	Revenue at Equal COS	\$ 1,832,683	\$ 889,162	\$ 216,832	\$ 364,751	\$ 187,761	\$ 146,214	\$ 27,964
5	Adjusted Revenue at Equal COS	\$ 1,835,982	\$ 890,763	\$ 217,222	\$ 365,407	\$ 188,099	\$ 146,477	\$ 28,014
6	Revenue Change to Equal COS	\$ -	\$ 84,330	\$ (12,721)	\$ (43,251)	\$ (14,577)	\$ (16,105)	\$ 2,324
7	Recommended Allocation of \$250 Million Decrease Revenue after COS	\$ (250,000)	\$ (121,292)	\$ (29,579)	\$ (49,756)	\$ (25,613)	\$ (19,945)	\$ (3,815)
8	Adjustment and \$250 Million Decrease	\$ 1,585,982	\$ 769,470	\$ 187,644	\$ 315,651	\$ 162,486	\$ 126,532	\$ 24,200
9	Change from Current Revenue:							
9	Amount	\$ (250,000)	\$ (36,962)	\$ (42,300)	\$ (93,008)	\$ (40,190)	\$ (36,050)	\$ (1,490)
10	Percent	-13.62%	-4.58%	-18.40%	-22.76%	-19.83%	-22.17%	-5.80%
11	Recommended Allocation of \$187.5 Million Decrease	\$ (187,500)	\$ (27,722)	\$ (31,725)	\$ (69,756)	\$ (30,142)	\$ (27,038)	\$ (1,118)
12	Percent	-10.21%	-3.44%	-13.80%	-17.07%	-14.87%	-16.63%	-4.35%
13	Recommended Allocation of \$125 Million Decrease	\$ (125,000)	\$ (18,481)	\$ (21,150)	\$ (46,504)	\$ (20,095)	\$ (18,025)	\$ (745)
14	Percent	-6.81%	-2.29%	-9.20%	-11.38%	-9.91%	-11.09%	-2.90%
15	Recommended Allocation of \$62.5 Million Decrease	\$ (62,500)	\$ (9,241)	\$ (10,575)	\$ (23,252)	\$ (10,047)	\$ (9,013)	\$ (373)
16	Percent	-3.40%	-1.15%	-4.60%	-5.69%	-4.96%	-5.54%	-1.45%

* From Line 23 of Schedule 2

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)	Lighting & Public Authority (7)
1	Current Revenue	\$ 1,835,982	\$ 806,432	\$ 229,944	\$ 408,658	\$ 202,676	\$ 162,582	\$ 25,690
	Increase/Decrease Needed to Move Half-way to Cost of Service:							
2	Percent *		5.13%	-2.85%	-5.37%	-3.68%	-5.03%	4.43%
3	Amount	\$ (1,649)	\$ 41,365	\$ (6,556)	\$ (21,954)	\$ (7,458)	\$ (8,184)	\$ 1,137
4	Revenue at Equal COS	\$ 1,834,332	\$ 847,797	\$ 223,388	\$ 386,704	\$ 195,218	\$ 154,398	\$ 26,827
	Adjusted Revenue at Equal COS	\$ 1,835,982	\$ 848,560	\$ 223,589	\$ 387,052	\$ 195,394	\$ 154,537	\$ 26,851
6	Revenue Change to Equal COS	\$ -	\$ 42,127	\$ (6,355)	\$ (21,606)	\$ (7,282)	\$ (8,045)	\$ 1,161
7	Recommended Allocation of \$250 Million Decrease Revenue after COS Adjustment and \$250 Million Decrease	\$ (250,000)	\$ (115,546)	\$ (30,445)	\$ (52,704)	\$ (26,606)	\$ (21,043)	\$ (3,656)
8	Change from Current Revenue:							
9	Amount	\$ (250,000)	\$ (73,418)	\$ (36,800)	\$ (74,310)	\$ (33,888)	\$ (29,088)	\$ (2,495)
10	Percent	-13.62%	-9.10%	-16.00%	-18.18%	-16.72%	-17.89%	-9.71%
11	Recommended Allocation of \$187.5 Million Decrease	\$ (187,500)	\$ (55,064)	\$ (27,600)	\$ (55,732)	\$ (25,416)	\$ (21,816)	\$ (1,871)
12	Percent	-10.21%	-6.83%	-12.00%	-13.64%	-12.54%	-13.42%	-7.28%
13	Recommended Allocation of \$125 Million Decrease	\$ (125,000)	\$ (36,709)	\$ (18,400)	\$ (37,155)	\$ (16,944)	\$ (14,544)	\$ (1,248)
14	Percent	-6.81%	-4.55%	-8.00%	-9.09%	-8.36%	-8.95%	-4.86%
15	Recommended Allocation of \$62.5 Million Decrease	\$ (62,500)	\$ (18,355)	\$ (9,200)	\$ (18,577)	\$ (8,472)	\$ (7,272)	\$ (624)
16	Percent	-3.40%	-2.28%	-4.00%	-4.55%	-4.18%	-4.47%	-2.43%

* 50% of Line 23 of Schedule 2

**Average Cost per kWh of Typical Industrial Bills
for 2001 in Missouri, Arkansas, Illinois, Indiana, Iowa,
Kansas, Kentucky, Oklahoma, Tennessee and Wisconsin
(As Reported to EEI Typical Bill Data Base)**

<u>Line</u>	<u>Utility Company</u>	<u>Industrial</u>
1	UtiliCorp United, Inc., KS	6.27 ¢
2	Commonwealth Edison Company	6.23
3	Northern Indiana Public Service Company	6.05
4	Central Illinois Light Company	5.25
5	Illinois Power Company	5.21
6	TVA/Memphis Light, Gas and Water Division	4.92
7	AmerenUE, MO	4.90
8	Southwestern Public Service Company, KS	4.88
9	Madison Gas & Electric Company	4.87
10	Northwestern Wisconsin Electric Company	4.84
11	Entergy Arkansas, Inc.	4.79
12	KG&E Company	4.77
13	Public Service Company of Oklahoma	4.75
14	AEP (Indiana Michigan Power), IN	4.62
15	Alliant Energy-IES Utilities, Inc. (Northern & Southeastern Zone), IA	4.61
16	Northern States Power Company (Wisconsin)	4.57
17	MidAmerican Energy - East System, IA	4.54
18	Central Illinois Public Service Company	4.52
19	Wisconsin Electric Power Company	4.48
20	Kansas City Power & Light Company, KS	4.47
21	Union Light, Heat and Power	4.44
22	MidAmerican Energy-South System, IA	4.35
23	OG&E Electric Services	4.32
24	Southern Indiana Gas & Electric Company	4.22
25	Kansas City Power & Light Company, MO	4.19
26	Indianapolis Power & Light Company	4.15
27	Southwestern Public Service Company, OK	4.13
28	KPL Company (Western Resources Inc.)	4.09
29	Empire District Electric Company, OK	4.08
30	Alliant Energy-WP&L	4.08
31	Southwestern Electric Power Company, AR	4.07
32	Empire District Electric Company, MO	3.91
33	UtiliCorp United, Inc., MO	3.91
34	Empire District Electric Company, AR	3.90
35	Superior Water, Light & Power Company	3.85
36	OG&E Electric Services, AR	3.82
37	Alliant Energy-Interstate Power Company, IA	3.82
38	UtiliCorp United, Inc./St. Joseph Light & Power Co., MO	3.81
39	MidAmerican Energy-North System, IA	3.80
40	Alliant Energy-Interstate Power Company, IL	3.79
41	AmerenUE, IL	3.72
42	MidAmerican Energy, IL	3.67
43	Black River Coop	3.66
44	Empire District Electric Company, KS	3.54
45	Wisconsin Public Service Corporation	3.54
46	PSI Energy, Inc.	3.47
47	Alliant Energy-IES Utilities, Inc. (Southern Zone), IA	3.41
48	Louisville Gas & Electric Company	3.37
49	AEP (Kingsport Power Rate Area)	3.18
50	Kentucky Utilities Company	2.81
51	AEP (Kentucky Power Rate Area)	2.78
52	Average for Region	4.26 ¢

**Average Cost per kWh of Typical Residential Bills
for 2001 in Missouri, Arkansas, Illinois, Indiana, Iowa,
Kansas, Kentucky, Oklahoma, Tennessee and Wisconsin
(As Reported to EEI Typical Bill Data Base)**

<u>Line</u>	<u>Utility Company</u>	<u>Residential</u>
1	Northern Indiana Public Service Company	10.24 ¢
2	Alliant Energy-IES Utilities, Inc. (Northern & Southeastern Zone), IA	10.14
3	MidAmerican Energy-South System, IA	9.57
4	MidAmerican Energy - East System, IA	9.54
5	Commonwealth Edison Company	9.36
6	Entergy Arkansas, Inc.	9.35
7	Illinois Power Company	8.97
8	Madison Gas & Electric Company	8.97
9	KG&E Company	8.86
10	UtiliCorp United, Inc., KS	8.48
11	OG&E Electric Services	8.45
12	MidAmerican Energy, IL	8.44
13	Wisconsin Electric Power Company	8.26
14	Alliant Energy-Interstate Power Company, IA	8.24
15	MidAmerican Energy-North System, IA	8.21
16	Central Illinois Light Company	8.14
17	Central Illinois Public Service Company	8.09
18	AmerenUE, MO	7.90
19	Kansas City Power & Light Company, KS	7.80
20	Northern States Power Company (Wisconsin)	7.63
21	Southern Indiana Gas & Electric Company	7.58
22	UtiliCorp United, Inc., MO	7.57
23	Southwestern Public Service Company, KS	7.52
24	Kansas City Power & Light Company, MO	7.37
25	AmerenUE, IL	7.33
26	Northwestern Wisconsin Electric Company	7.33
27	Wisconsin Public Service Corporation	7.33
28	Alliant Energy-WP&L	7.31
29	Southwestern Public Service Company, OK	7.31
30	Southwestern Electric Power Company, AR	7.29
31	Public Service Company of Oklahoma	7.28
32	Empire District Electric Company, AR	7.14
33	AEP (Indiana Michigan Power), IN	7.14
34	OG&E Electric Services, AR	7.12
35	Black River Coop	7.04
36	PSI Energy, Inc.	7.03
37	Empire District Electric Company, MO	7.02
38	Indianapolis Power & Light Company	7.00
39	Empire District Electric Company, OK	6.92
40	Alliant Energy-Interstate Power Company, IL	6.89
41	Union Light, Heat and Power	6.77
42	UtiliCorp United, Inc./St. Joseph Light & Power Co., MO	6.53
43	TVA/Memphis Light, Gas and Water Division	6.50
44	Superior Water, Light & Power Company	6.48
45	Alliant Energy-IES Utilities, Inc. (Southern Zone), IA	6.46
46	KPL Company (Western Resources Inc.)	6.27
47	Empire District Electric Company, KS	6.21
48	Louisville Gas & Electric Company	5.48
49	AEP (Kentucky Power Rate Area)	5.07
50	AEP (Kingsport Power Rate Area)	4.94
51	Kentucky Utilities Company	4.32
52	Average for Region	7.53 ¢

**Average Cost per kWh of Commercial Typical Bills
for 2001 in Missouri, Arkansas, Illinois, Indiana, Iowa,
Kansas, Kentucky, Oklahoma, Tennessee and Wisconsin
(As Reported to EEI Typical Bill Data Base)**

<u>Line</u>	<u>Utility Company</u>	<u>Commercial</u>
1	Northern Indiana Public Service Company	9.95 ¢
2	Commonwealth Edison Company	8.58
3	Illinois Power Company	8.24
4	UtiliCorp United, Inc., KS	8.05
5	Alliant Energy-IES Utilities, Inc. (Northern & Southeastern Zone), IA	7.27
6	KG&E Company	7.25
7	Central Illinois Light Company	7.08
8	Kansas City Power & Light Company, KS	7.07
9	MidAmerican Energy - East System, IA	7.03
10	Wisconsin Electric Power Company	6.92
11	Central Illinois Public Service Company	6.82
12	AmerenUE, MO	6.77
13	OG&E Electric Services	6.76
14	Madison Gas & Electric Company	6.74
15	MidAmerican Energy-South System, IA	6.73
16	Southwestern Public Service Company, OK	6.73
17	TVA/Memphis Light, Gas and Water Division	6.66
18	Indianapolis Power & Light Company	6.46
19	Southwestern Public Service Company, KS	6.45
20	Kansas City Power & Light Company, MO	6.44
21	Union Light, Heat and Power	6.44
22	Entergy Arkansas, Inc.	6.36
23	AEP (Indiana Michigan Power), IN	6.28
24	MidAmerican Energy, IL	6.24
25	Northwestern Wisconsin Electric Company	6.24
26	Public Service Company of Oklahoma	6.08
27	Northern States Power Company (Wisconsin)	6.01
28	Empire District Electric Company, AR	5.94
29	Empire District Electric Company, OK	5.91
30	Empire District Electric Company, KS	5.84
31	Alliant Energy-Interstate Power Company, IL	5.68
32	AmerenUE, IL	5.64
33	Alliant Energy-WP&L	5.62
34	Southern Indiana Gas & Electric Company	5.61
35	Black River Coop	5.59
36	MidAmerican Energy-North System, IA	5.39
37	Southwestern Electric Power Company, AR	5.36
38	Empire District Electric Company, MO	5.27
39	OG&E Electric Services, AR	5.26
40	Alliant Energy-Interstate Power Company, IA	5.25
41	UtiliCorp United, Inc., MO	5.17
42	Louisville Gas & Electric Company	5.13
43	PSI Energy, Inc.	5.11
44	KPL Company (Western Resources Inc.)	4.96
45	Superior Water, Light & Power Company	4.92
46	AEP (Kentucky Power Rate Area)	4.90
47	AEP (Kingsport Power Rate Area)	4.89
48	Alliant Energy-IES Utilities, Inc. (Southern Zone), IA	4.88
49	Wisconsin Public Service Corporation	4.83
50	UtiliCorp United, Inc./St. Joseph Light & Power Co., MO	4.63
51	Kentucky Utilities Company	3.79
52	Average for Region	6.14 ¢

**Average Cost per kWh of Typical Bills
for 2001 in Missouri, Arkansas, Illinois, Indiana, Iowa,
Kansas, Kentucky, Oklahoma, Tennessee and Wisconsin
(As Reported to EEI Typical Bill Data Base)**

Description of Usage and Loads for Typical Bills

EEI data is reported for a winter month (January) and a summer month (July).

The residential usage is based on 750 kWh for the winter month and 1,000 kWh for the summer month.

The commercial usage is based on 100 kW with 30,000 kWh (41% load factor) for both time periods.

The industrial usage is based on 10,000 kW with 5,000,000 kWh (68% load factor) for both time periods.

Footnote to Schedule 5, pages 1 through 3

EEI data reflects information reported by the utilities. Applicable add-on taxes are often included.

Ameren UE has traditionally included add-on taxes in its reported data. In 2001, Ameren UE included add-on taxes in the January calculation but not in the July calculation. For consistency, we have included add-on taxes for the July calculation.

**Average Cost per kWh of Typical Industrial Bills
for 2001 in Missouri, Arkansas, Illinois, Indiana, Iowa,
Kansas, Kentucky, Oklahoma, Tennessee and Wisconsin
(EEI Typical Bill Data Base with Add-on Taxes Removed)**

<u>Line</u>	<u>Utility Company</u>	<u>Industrial</u>
1	UtiliCorp United, Inc., KS	6.27 ¢
2	Commonwealth Edison Company	6.13
3	Northern Indiana Public Service Company	5.76
4	Central Illinois Light Company	4.98
5	Illinois Power Company	4.95
6	TVA/Memphis Light, Gas and Water Division	4.92
7	Southwestern Public Service Company, KS	4.88
8	Madison Gas & Electric Company	4.87
9	Northwestern Wisconsin Electric Company	4.84
10	Entergy Arkansas, Inc.	4.79
11	KG&E Company	4.77
12	Public Service Company of Oklahoma	4.74
13	AEP (Indiana Michigan Power), IN	4.62
14	Alliant Energy-IES Utilities, Inc. (Northern & Southeastern Zone), IA	4.61
15	Northern States Power Company (Wisconsin)	4.57
16	MidAmerican Energy - East System, IA	4.54
17	Central Illinois Public Service Company	4.49
18	Wisconsin Electric Power Company	4.48
19	Kansas City Power & Light Company, KS	4.47
20	Union Light, Heat and Power	4.44
21	AmerenUE, MO	4.41
22	MidAmerican Energy-South System, IA	4.35
23	OG&E Electric Services	4.28
24	Southern Indiana Gas & Electric Company	4.22
25	Kansas City Power & Light Company, MO	4.19
26	Indianapolis Power & Light Company	4.15
27	KPL Company (Western Resources Inc.)	4.09
28	Empire District Electric Company, OK	4.08
29	Alliant Energy-WP&L	4.08
30	Southwestern Public Service Company, OK	4.03
31	Southwestern Electric Power Company, AR	4.03
32	Empire District Electric Company, MO	3.91
33	UtiliCorp United, Inc., MO	3.91
34	Empire District Electric Company, AR	3.90
35	Superior Water, Light & Power Company	3.85
36	Alliant Energy-Interstate Power Company, IA	3.82
37	UtiliCorp United, Inc./St. Joseph Light & Power Co., MO	3.81
38	MidAmerican Energy-North System, IA	3.80
39	Alliant Energy-Interstate Power Company, IL	3.79
40	AmerenUE, IL	3.68
41	OG&E Electric Services, AR	3.68
42	MidAmerican Energy, IL	3.67
43	Black River Coop	3.66
44	Empire District Electric Company, KS	3.54
45	Wisconsin Public Service Corporation	3.54
46	PSI Energy, Inc.	3.47
47	Alliant Energy-IES Utilities, Inc. (Southern Zone), IA	3.41
48	Louisville Gas & Electric Company	3.37
49	AEP (Kingsport Power Rate Area)	3.18
50	Kentucky Utilities Company	2.81
51	AEP (Kentucky Power Rate Area)	2.78
52	Average for Region	4.23 ¢

**Average Cost per kWh of Typical Residential Bills
for 2001 in Missouri, Arkansas, Illinois, Indiana, Iowa,
Kansas, Kentucky, Oklahoma, Tennessee and Wisconsin
(EEI Typical Bill Data Base with Add-on Taxes Removed)**

Line	Utility Company	Residential
1	Alliant Energy-IES Utilities, Inc. (Northern & Southeastern Zone), IA	10.14 ¢
2	Northern Indiana Public Service Company	9.75
3	MidAmerican Energy-South System, IA	9.57
4	MidAmerican Energy - East System, IA	9.54
5	Entergy Arkansas, Inc.	9.35
6	Commonwealth Edison Company	9.21
7	Madison Gas & Electric Company	8.97
8	KG&E Company	8.86
9	Illinois Power Company	8.64
10	UtiliCorp United, Inc., KS	8.48
11	MidAmerican Energy, IL	8.43
12	OG&E Electric Services	8.27
13	Wisconsin Electric Power Company	8.26
14	Alliant Energy-Interstate Power Company, IA	8.24
15	MidAmerican Energy-North System, IA	8.21
16	Central Illinois Public Service Company	8.13
17	Central Illinois Light Company	7.81
18	Kansas City Power & Light Company, KS	7.80
19	Northern States Power Company (Wisconsin)	7.63
20	Southern Indiana Gas & Electric Company	7.61
21	AmerenUE, MO	7.58
22	UtiliCorp United, Inc., MO	7.57
23	Southwestern Public Service Company, KS	7.52
24	Kansas City Power & Light Company, MO	7.37
25	Northwestern Wisconsin Electric Company	7.33
26	Wisconsin Public Service Corporation	7.33
27	Alliant Energy-WP&L	7.31
28	Public Service Company of Oklahoma	7.17
29	Southwestern Public Service Company, OK	7.17
30	AmerenUE, IL	7.15
31	Empire District Electric Company, AR	7.14
32	AEP (Indiana Michigan Power), IN	7.14
33	Southwestern Electric Power Company, AR	7.08
34	Black River Coop	7.04
35	PSI Energy, Inc.	7.03
36	Empire District Electric Company, MO	7.02
37	Indianapolis Power & Light Company	7.00
38	Empire District Electric Company, OK	6.92
39	OG&E Electric Services, AR	6.91
40	Alliant Energy-Interstate Power Company, IL	6.89
41	Union Light, Heat and Power	6.77
42	UtiliCorp United, Inc./St. Joseph Light & Power Co., MO	6.53
43	TVA/Memphis Light, Gas and Water Division	6.50
44	Superior Water, Light & Power Company	6.48
45	Alliant Energy-IES Utilities, Inc. (Southern Zone), IA	6.46
46	KPL Company (Western Resources Inc.)	6.27
47	Empire District Electric Company, KS	6.21
48	Louisville Gas & Electric Company	5.48
49	AEP (Kentucky Power Rate Area)	5.07
50	AEP (Kingsport Power Rate Area)	4.94
51	Kentucky Utilities Company	4.32
52	Average for Region	7.48 ¢

**Average Cost per kWh of Typical Commercial Bills
for 2001 in Missouri, Arkansas, Illinois, Indiana, Iowa,
Kansas, Kentucky, Oklahoma, Tennessee and Wisconsin
(EEI Typical Bill Data Base with Add-on Taxes Removed)**

<u>Line</u>	<u>Utility Company</u>	<u>Commercial</u>
1	Northern Indiana Public Service Company	9.48 ¢
2	Commonwealth Edison Company	8.44
3	UtiliCorp United, Inc., KS	8.05
4	Illinois Power Company	7.92
5	Alliant Energy-IES Utilities, Inc. (Northern & Southeastern Zone), IA	7.27
6	KG&E Company	7.25
7	Kansas City Power & Light Company, KS	7.07
8	MidAmerican Energy - East System, IA	7.03
9	Wisconsin Electric Power Company	6.92
10	Central Illinois Light Company	6.76
11	Madison Gas & Electric Company	6.74
12	MidAmerican Energy-South System, IA	6.73
13	Southwestern Public Service Company, OK	6.69
14	TVA/Memphis Light, Gas and Water Division	6.66
15	OG&E Electric Services	6.56
16	Indianapolis Power & Light Company	6.46
17	Southwestern Public Service Company, KS	6.45
18	Kansas City Power & Light Company, MO	6.44
19	Union Light, Heat and Power	6.44
20	Central Illinois Public Service Company	6.39
21	Entergy Arkansas, Inc.	6.36
22	AEP (Indiana Michigan Power), IN	6.28
23	Northwestern Wisconsin Electric Company	6.24
24	MidAmerican Energy, IL	6.20
25	AmerenUE, MO	6.10
26	Northern States Power Company (Wisconsin)	6.01
27	Empire District Electric Company, AR	5.94
28	Empire District Electric Company, OK	5.91
29	Public Service Company of Oklahoma	5.88
30	Empire District Electric Company, KS	5.84
31	Alliant Energy-Interstate Power Company, IL	5.68
32	Alliant Energy-WP&L	5.62
33	Black River Coop	5.59
34	Southern Indiana Gas & Electric Company	5.49
35	MidAmerican Energy-North System, IA	5.39
36	AmerenUE, IL	5.29
37	Empire District Electric Company, MO	5.27
38	Alliant Energy-Interstate Power Company, IA	5.25
39	Southwestern Electric Power Company, AR	5.20
40	UtiliCorp United, Inc., MO	5.17
41	Louisville Gas & Electric Company	5.13
42	PSI Energy, Inc.	5.11
43	OG&E Electric Services, AR	5.06
44	KPL Company (Western Resources Inc.)	4.96
45	Superior Water, Light & Power Company	4.92
46	AEP (Kentucky Power Rate Area)	4.90
47	AEP (Kingsport Power Rate Area)	4.88
48	Alliant Energy-IES Utilities, Inc. (Southern Zone), IA	4.88
49	Wisconsin Public Service Corporation	4.83
50	UtiliCorp United, Inc./St. Joseph Light & Power Co., MO	4.63
51	Kentucky Utilities Company	3.79
52	Average for Region	6.07 ¢

Exhibit No.
Witness: Maurice Brubaker
Type of Exhibit: Rebuttal Testimony
Sponsoring Party: Missouri Industrial Energy Consumers
Case No. EC-2002-1
Subjects: Revenue Allocation/Rate Design

**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.	)	

Rebuttal Testimony of

Maurice Brubaker

On Behalf of

Missouri Industrial Energy Consumers

May 17, 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)

Affidavit of Maurice Brubaker

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

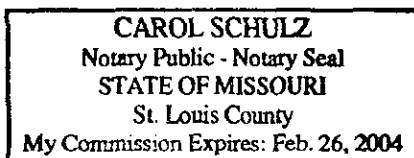
1. My name is Maurice Brubaker. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000. We have been retained by the Missouri Industrial Energy Consumers in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes is my rebuttal 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 rebuttal testimony is true and correct and shows the matters and things it purports to show.


Maurice Brubaker

Subscribed and sworn to before this 16th day of May 2002.




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.	)	

Rebuttal 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 WHAT IS YOUR OCCUPATION?**

5 A I am a consultant in the field of public utility regulation and president of Brubaker &
6 Associates, Inc. (BAI), energy, economic and regulatory consultants.

7 **Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

8 A This information is included in Appendix A to my testimony.

9 **Q ON WHOSE BEHALF ARE YOU PRESENTING REBUTTAL TESTIMONY?**

10 A I am presenting rebuttal testimony on behalf of the Missouri Industrial Energy
11 Consumers (MIEC). The MIEC Group includes many of AmerenUE's (UE or
12 Company) largest purchasers of electricity service.

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1 **Q WHAT IS THE SUBJECT OF YOUR REBUTTAL TESTIMONY?**

2 A I will offer testimony in rebuttal to the revenue allocation/rate design testimony
3 presented by Staff witnesses James Watkins and Janice Pyatte.

4 **Q ARE OTHER WITNESSES TESTIFYING ON BEHALF OF MIEC?**

5 A Yes. Mr. Michael Gorman presents testimony in response to Staff's analysis of cost
6 of capital, and Mr. James Selecky presents testimony concerning the issue of
7 negative salvage.

8 The fact that we have not addressed other adjustments or positions taken by
9 Staff should not be interpreted to mean either that we endorse those positions, or that
10 we oppose them.

11 **ALLOCATION OF REVENUE DECREASE**

12 **Q WHAT METHODOLOGY HAS MR. WATKINS OF THE STAFF PROPOSED FOR**
13 **ALLOCATING ANY REVENUE DECREASE THAT RESULTS FROM THIS**
14 **PROCEEDING?**

15 A As explained on Page 3 of his testimony, he bases his recommendations on a
16 Stipulation and Agreement (Stipulation) among the parties (subsequently approved
17 by the Commission on November 18, 1999) in UE's most recent rate design case,
18 Missouri PSC Case No. EO-96-15.

19 **Q PLEASE EXPLAIN THAT STIPULATION IN MORE DETAIL.**

20 A That Stipulation was for the purpose of determining how any rate reduction that
21 followed the end of the third year of the earnings sharing plan should be allocated
22 among customer classes. The parties agreed that the first \$25 million of any rate

1 reduction should be applied to only the non-residential and non-lighting classes, and
2 that any decrease in excess of \$25 million should be allocated as an equal
3 percentage applied to each non-lighting class.

4 **Q WHAT WAS THE RANGE OF RATE DECREASES BEING CONSIDERED AT THE**
5 **TIME THIS STIPULATION WAS SIGNED?**

6 A The range of decreases being considered was from approximately \$16 million on the
7 part of UE, to approximately \$30 million on the part of the Staff.

8 **Q SPECIFICALLY, HOW DOES STAFF PROPOSE, IN THIS CASE, TO USE THE**
9 **RESULTS OF THIS STIPULATION?**

10 A The end result of the revenue reduction at the end of the third year of the earnings
11 sharing plan was, as shown on Schedule 6 of Staff witness Pyatte's testimony in this
12 proceeding, approximately \$16 million. Mr. Watkins and Ms. Pyatte recommend
13 allocating an additional amount of approximately \$9 million on an equal percentage
14 basis to the non-residential and non-lighting customers (as in the Stipulation), and
15 applying a uniform percentage decrease to the non-customer charge revenues of all
16 schedules (including residential) for any additional amount of decrease.

17 **Q IS IT REASONABLE TO CONTINUE TO APPLY THE TERMS OF THE**
18 **STIPULATION FROM THE EO-96-15 PROCEEDING TO THE AMOUNT OF**
19 **REVENUE DECREASE THAT MAY BE ORDERED AS A RESULT OF THIS**
20 **COMPLAINT CASE?**

21 A No, it is not. The amount of money at stake in EO-96-16 was, as noted above, within
22 the range of \$16-\$30 million. There is certainly no logical basis to translate the

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1 results of a stipulation based on a nominal \$25 million decrease to this case, where
2 the overall decrease being proposed by Staff is roughly ten times that amount!

3 Furthermore, the Stipulation in EO-96-15 has no precedential value and no
4 bearing on this case. Section 19 of the Stipulation makes this abundantly clear.
5 Moreover, MIEC never would have agreed to the Stipulation in EO-96-15 had it been
6 expected to apply to a larger amount of revenue decrease than what was at issue in
7 the rate design case. At larger amounts of revenue decrease, the movement toward
8 cost of service is inadequate. The Commission should not utilize the Stipulation from
9 Case EO-96-15 in any way, in allocating the decrease in this proceeding.

10 **Q MR. WATKINS ATTACHES TO HIS DIRECT TESTIMONY A SUMMARY OF**
11 **STAFF'S COST OF SERVICE STUDY FROM CASE NO. EO-96-15. WHAT USE**
12 **DOES STAFF MAKE OF THIS COST OF SERVICE STUDY?**

13 **A** At Page 4 of his direct testimony Mr. Watkins refers to this study and asserts that
14 Staff's rate design recommendation in this case is consistent with the cost of serving
15 each customer class, as defined by Staff's cost of service study.

16 **Q DO YOU AGREE?**

17 **A** No. Mr. Watkins' summary shows that the residential class required a 3.37%
18 increase to reach cost of service, while the commercial and industrial customers (as a
19 group) required a 3.97% decrease. Thus, there was a 7.34 percentage point
20 difference between the two groups of customers to achieve cost of service (3.37% +
21 3.97%). In Case No. EO-96-15 this differential was lowered by 1.73 percentage
22 points as shown on Schedule 6 attached to Ms. Pyatte's testimony. This leaves a
23 5.61 percentage point differential at an overall decrease of \$25 million.

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1 None of the revenue reduction scenarios illustrated by Ms. Pyatte (ranging
2 from \$50 million to \$300 million) contain that large of a differential between the
3 decrease to the residential class and the decrease to the non-residential classes.
4 Thus, even as measured by its own yardstick, Staff's revenue reduction allocation
5 does not conform to the results of its own cost of service study.

6 **Q HOW MUCH DIFFERENTIAL IS THERE IN STAFF'S ALLOCATIONS?**

7 A To illustrate, at a \$250 million reduction, the indicated decrease for the residential
8 class is 12.5%, while the average decrease for non-residential customers is 14.5%, a
9 differential of only 2 percentage points.

10 **Q SHOULD STAFF'S COST OF SERVICE STUDY BE RELIED UPON?**

11 A No. As was extensively discussed in Case No. EO-96-15, Staff's class cost of
12 service study is unique to the Missouri PSC Staff. It is not utilized by anyone else,
13 anywhere, that I am aware of. It is not one of the methods described in the National
14 Association of Regulatory Utility Commissioners (NARUC) cost allocation manual, nor
15 has it been proposed in any other jurisdiction that I am aware of. It is far outside the
16 mainstream of accepted cost allocation methods, and has a characteristic of
17 significantly over-allocating costs to high load factor customers.

18 **Q WERE THERE OTHER COST OF SERVICE STUDIES OFFERED IN CASE NO. EO-**
19 **96-15?**

20 A Yes. MIEC and UE offered cost of service studies using traditional methodologies.
21 The traditional cost or service study most favorable to the residential class was the
22 Average and Excess – Four Non-Coincident Peak method (A&E-4NCP). Schedule 1

1 attached to this testimony is a copy of the summary from a cost of service study using
2 the A&E-4NCP method, which I submitted in that proceeding.

3 **Q WHAT DOES IT SHOW?**

4 A It shows that when traditional methods are used there is a much greater differential
5 between the cost of service for the residential customers and the commercial/
6 industrial customers than is the case under Staff's unique methodology.

7 **Q CAN THE RESULTS OF THIS COST OF SERVICE STUDY BE USED TO**
8 **DEVELOP A METHOD FOR ALLOCATING ANY REVENUE DECREASE THAT**
9 **RESULTS FROM THIS CASE?**

10 A Yes.

11 **Q WHAT STEPS ARE NECESSARY TO USE THIS COST OF SERVICE STUDY?**

12 A The first step that is necessary is to adjust the results of the class cost of service
13 study from Case No. EO-96-15 to recognize the reduction in revenues that was
14 allocated to the non-residential, non-lighting customer classes in that proceeding.

15 Schedule 2 attached to this testimony shows the development of the adjusted
16 cost of service study. The results were developed by reducing the base rate
17 revenues from the non-residential, non-lighting groups by 1.73%. An adjustment was
18 made for income taxes, and the income tax adjustment was then allocated to
19 customer classes. A new operating income, rate of return and index of return were
20 then developed as shown on Lines 19 through 21, respectively. Line 22 shows the
21 dollar amount of increase or decrease required to move each class to cost of service
22 after recognizing that some movement toward cost of service was achieved in Case

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1 No. EO-96-15. Line 23 shows the resulting percentage increase or decrease on base
2 revenues to achieve equality with cost of service.

3 **Q USING THIS ADJUSTED COST OF SERVICE INFORMATION, HOW DO YOU**
4 **PROPOSE THAT ANY REVENUE DECREASE BE ALLOCATED TO THE**
5 **VARIOUS CUSTOMER CLASSES?**

6 A Schedule 3 attached to this testimony shows my proposed spread of any revenue
7 decrease to customer classes. I began with the current revenues from each
8 customer class, which were taken from Schedule 6 of Ms. Pyatte's testimony. Line 2
9 shows the application of the percentage increase or decrease as developed on
10 Schedule 2. That is, these are the percentage changes in revenues required to move
11 each class to cost of service assuming no overall change in revenues. Because the
12 mix of revenues between classes is different in the current test year than it was in the
13 test year used in the rate design case, applying these percentages directly does not
14 produce exactly offsetting increases and decreases. As shown on Line 3, the net
15 difference from zero is approximately \$3.3 million. Class revenues were scaled
16 proportionately to reach the adjusted revenues at present rates, assuming rates equal
17 to cost of service and no overall revenue change. The increases and decreases by
18 class are shown on Line 6.

19 **Q HOW DID YOU PROCEED FROM THIS POINT?**

20 A I then examined how a \$250 million revenue decrease would be spread. I decided
21 that if I was beginning with rates equal to cost of service it would be generally
22 reasonable to spread the decrease on an equal percentage basis. This is what is
23 shown on Line 7. When that decrease is combined with the cost of service

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adjustments shown on Line 6, the overall resulting change in class revenues is shown on Line 9.

Q HOW WOULD YOU ADJUST THIS AMOUNT IF THE DECREASE IS A NUMBER OTHER THAN \$250 MILLION?

A I would proportionately scale up this amount if the decrease is larger, and scale it down if the decrease is smaller. Lines 11 through 15 of Schedule 3 illustrate how this could be done using revenue decreases equal to 75% (Lines 11 and 12), 50% (Lines 13 and 14), or 25% (Lines 15 and 16) of this amount. With this approach, all customer classes receive a decrease at all levels of overall revenue decrease, with the difference among classes being related to differences in where class revenues are with respect to cost of service.

Q IF THE COMMISSION WANTED TO MOVE TOWARD COST OF SERVICE, BUT NOT TO THE EXTENT YOU HAVE PROPOSED, HAVE YOU PREPARED AN ALTERNATIVE?

A Yes. Schedule 4 attached to this testimony follows the same general approach but instead selects as an ending point movement 50% of the way to cost of service. All customer classes continue to receive a decrease, but the difference in the percentage decreases among customer classes is smaller than in the case of movement all the way to cost of service.

COMPETITIVENESS OF RATES

Q DO YOU HAVE ANY OTHER TESTIMONY TO OFFER CONCERNING THE DISTRIBUTION OF ANY APPROVED REVENUE DECREASE?

1 A Yes. From the overall perspective of economic development and competitiveness,
2 the rates currently faced by industrial customers in the UE service territory in Missouri
3 are substantially above the average for the region. This is outlined on Schedule 5.
4 This information is taken from the semi-annual publications of the Edison Electric
5 Institute "Typical Bills" publication. This publication accumulates information supplied
6 by member companies of the Edison Electric Institute (investor-owned utilities) for a
7 variety of consumption levels. The data in Schedule 5 reflects a 10,000 kW customer
8 with a 68% load factor – a medium-sized industrial load. The data is shown for 51
9 service territories in and around Missouri. (For comparison we have added Black
10 River Electric Cooperative in Missouri and the Tennessee Valley Authority in the
11 Tennessee Valley area.) What this analysis shows is that the rates faced by UE
12 industrial customers in Missouri are higher than those faced by customers of any
13 other Missouri utility, and seventh highest out of the total of 51 service territories in
14 Missouri and surrounding regions.

15 Therefore, reducing the rates of industrial customers would move them into a
16 more competitive position in the region, which would be a benefit for economic
17 development.

18 Q DO THE TYPICAL BILL DATA REPORTED IN SCHEDULE 5 INCLUDE ADD-ON
19 TAXES?

20 A Yes. Most utilities include applicable add-on taxes when presenting their "typical bill"
21 data to EEI.

1 **Q DOESN'T THIS POTENTIALLY DISTORT THE RATE RELATIONSHIPS?**

2 A No. To the extent that there are add-on taxes in a given service territory, customers
3 purchasing electricity from the utility serving that area are obligated to pay those
4 taxes. Thus, adding the taxes makes for a more accurate comparison of the cost of
5 electricity among service territories.

6 However, for purposes of providing additional information, Schedule 6 shows
7 the data excluding the taxes that have been added on by the various utilities in
8 reporting their data to EEI. Although AmerenUE in Missouri fares somewhat better
9 when taxes are ignored than when they are included, its rates, especially to industrial
10 customers, continue to be quite high.

11 Furthermore, neither the EEI data shown on Schedule 5, or the adjusted data
12 shown on Schedule 6, reflect the requirement to pay sales tax on the purchase of
13 electricity. With limited exceptions, industrial customers in Missouri are obligated to
14 pay sales tax on their purchases of electricity. This adds an additional 6%-7.5% to
15 the cost of purchased electricity. This is especially relevant because in many other
16 states sales taxes are not imposed on energy purchased for manufacturing purposes.
17 Thus, if all relevant taxes were included, it is likely that the UE service territory in
18 Missouri would rank even more poorly than it does when only gross receipts types of
19 taxes are included.

20 **Q DO YOU HAVE ANY OTHER INFORMATION CONCERNING COMPARATIVE**
21 **RATES?**

22 A Yes. There has obviously been much concern about the future of the Ford Plant in
23 Hazelwood, Missouri. The Assembly Plant in Louisville, Kentucky produces the same
24 vehicles as the Hazelwood Plant. I am advised by the Ford personnel responsible for

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1 energy that the electricity rates, which they pay in Louisville, are more than 20% lower
2 than the rates that they pay to AmerenUE for the Hazelwood plant. While many
3 factors determine the overall attractiveness of a given location from an industrial
4 manufacturing perspective, it is without question that energy costs are a factor. On
5 this score, it is clear that energy costs are a significant negative factor for the
6 AmerenUE service territory in Missouri.

7 **Q IN GENERAL, HOW IS MISSOURI FARING IN RELATION TO OTHER STATES IN**
8 **THE CURRENT ECONOMIC CYCLE?**

9 A Apparently, not very well. It was reported on April 20, 2002, by Mr. Joe Driskill,
10 Director of the Department of Economic Development, that Missouri was lagging
11 behind many other states in terms of recovery from the recessionary economy.
12 Noting that Illinois, Iowa, Nebraska, Kansas, Oklahoma, Arkansas, Tennessee and
13 Kentucky were recovering or expanding, he noted that ". . . There's no clear sign that
14 the national recession's grip on Missouri has eased." This circumstance adds further
15 impetus to the need to forthrightly address all important factors that are a negative to
16 Missouri in terms of economic well-being.

17 **Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

18 A Yes, it does.

Qualifications of Maurice Brubaker

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

2 A Maurice Brubaker. My business mailing address is P. O. Box 412000, 1215 Fern
3 Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000.

4 **Q PLEASE STATE YOUR OCCUPATION.**

5 A I am a consultant in the field of public utility regulation and President of the firm of
6 Brubaker & Associates, Inc., energy, economic and regulatory consultants.

7 **Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND EXPERI-
8 ENCE.**

9 A I was graduated from the University of Missouri in 1965, with a Bachelor's Degree in
10 Electrical Engineering. Subsequent to graduation I was employed by the Utilities
11 Section of the Engineering and Technology Division of Esso Research and
12 Engineering Corporation of Morristown, New Jersey, a subsidiary of Standard Oil of
13 New Jersey.

14 In the Fall of 1965, I enrolled in the Graduate School of Business at
15 Washington University in St. Louis, Missouri. I was graduated in June of 1967 with
16 the Degree of Master of Business Administration. My major field was finance.

17 From March of 1966 until March of 1970, I was employed by Emerson Electric
18 Company in St. Louis. During this time I pursued the Degree of Master of Science in
19 Engineering at Washington University, which I received in June, 1970.

1 In March of 1970, I joined the firm of Drazen Associates, Inc., of St. Louis,
2 Missouri. Since that time I have been engaged in the preparation of numerous
3 studies relating to electric, gas, telephone and water utilities. These studies have
4 included analyses of the cost to serve various types of customers, the design of rates
5 for utility services, cost forecasts, cogeneration rates and determinations of rate base
6 and operating income. I have also addressed utility resource planning principles and
7 plans, reviewed capacity additions to determine whether or not they were used and
8 useful, addressed demand-side management issues independently and as part of
9 least cost planning, and have reviewed utility determinations of the need for capacity
10 additions and/or purchased power to determine the consistency of such plans with
11 least cost planning principles and the prudence of the actions undertaken.

12 I have testified before the Federal Energy Regulatory Commission (FERC),
13 various courts and legislatures, and the state regulatory commissions of Alabama,
14 Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia,
15 Guam, Hawaii, Illinois, Indiana, Iowa, Kentucky, Louisiana, Michigan, Missouri,
16 Nevada, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania,
17 Rhode Island, South Carolina, South Dakota, Texas, Utah, Virginia, West Virginia,
18 Wisconsin and Wyoming.

19 The firm of Drazen-Brubaker & Associates, Inc. was incorporated in 1972 and
20 assumed the utility rate and economic consulting activities of Drazen Associates, Inc.,
21 founded in 1937. In April, 1995 the firm of Brubaker & Associates, Inc. was formed.
22 It includes most of the former DBA principals and staff. Our staff includes consultants
23 with backgrounds in accounting, engineering, economics, mathematics, computer
24 science and business.

1 During the past ten years, Brubaker & Associates, Inc. and its predecessor
2 firm has participated in over 700 major utility rate and other cases and statewide
3 generic investigations before utility regulatory commissions in 40 states, involving
4 electric, gas, water, and steam rates and other issues. Cases in which the firm has
5 been involved have included more than 80 of the 100 largest electric utilities and over
6 30 gas distribution companies and pipelines.

7 An increasing portion of the firm's activities is concentrated in the areas of
8 competitive procurement. While the firm has always assisted its clients in negotiating
9 contracts for utility services in the regulated environment, increasingly there are
10 opportunities for certain customers to acquire power on a competitive basis from a
11 supplier other than its traditional electric utility. The firm assists clients in identifying
12 and evaluating purchased power options, conducts RFPs and negotiates with
13 suppliers for the acquisition and delivery of supplies. We have prepared option
14 studies and/or conducted RFPs for competitive acquisition of power supply for
15 industrial and other end-use customers in more than a dozen states, involving total
16 needs in excess of 2,500 megawatts.

17 In addition to our main office in St. Louis, the firm also has branch offices in
18 Kerrville, Texas; Plano, Texas; Denver, Colorado; Asheville, NC; and Chicago,
19 Illinois.

MEB:cs/7651/26298

AMEREN UE

Cost of Service Study Test Year Ended September 1996

Line	Description	Missouri Total (1)	Residential (2)	Small General Service (3)	Large General Service (4)	Small Primary Service (5)	Large Primary Service (6)	Lighting (7)
Rate Base:								
1	Gross Plant in Service	\$ 7,041,298	\$ 3,678,197	\$ 864,464	\$ 1,312,672	\$ 638,146	\$ 416,856	\$ 130,963
2	Reserves for Depreciation	(2,552,178)	(1,343,255)	(313,600)	(472,311)	(225,594)	(147,541)	(49,878)
3	Other Rate Base Items	(665,195)	(359,007)	(87,716)	(119,026)	(53,043)	(33,523)	(12,881)
4	Total Rate Base	\$ 3,823,925	\$ 1,975,934	\$ 463,148	\$ 721,336	\$ 359,510	\$ 235,793	\$ 68,204
Revenue:								
5	Base	\$ 1,678,864	\$ 742,338	\$ 214,090	\$ 363,618	\$ 200,362	\$ 134,979	\$ 23,478
6	Other	17,586	9,412	2,661	3,347	1,016	689	461
7	Total Revenue	\$ 1,696,450	\$ 751,750	\$ 216,751	\$ 366,964	\$ 201,378	\$ 135,668	\$ 23,938
Expenses:								
8	Operating & Maintenance	\$ 796,797	\$ 368,399	\$ 93,477	\$ 157,038	\$ 101,620	\$ 66,542	\$ 9,720
9	Depreciation	209,716	110,921	25,784	38,507	18,321	11,945	4,238
10	Property Taxes	78,287	40,895	9,611	14,595	7,095	4,635	1,456
11	Income Taxes	204,703	105,776	24,793	38,615	19,245	12,622	3,651
12	Payroll Taxes	19,240	9,752	2,339	3,362	2,168	1,296	323
13	Federal Excise Taxes	555	269	68	114	59	40	5
14	Total Expenses	\$ 1,309,297	\$ 636,013	\$ 156,072	\$ 252,229	\$ 148,509	\$ 97,080	\$ 19,393
15	Operating Income	\$ 387,153	\$ 115,737	\$ 60,678	\$ 114,735	\$ 52,869	\$ 38,588	\$ 4,545
16	Rate of Return	10.12%	5.86%	13.10%	15.91%	14.71%	16.37%	6.66%
17	Index	100	58	129	157	145	162	66
Increase/Decrease to Equal Cost of Service:								
18	Amount	\$ 0	\$ 84,317	\$ (13,787)	\$ (41,703)	\$ (16,471)	\$ (14,715)	\$ 2,360
19	Percent of Base Revenue	0.00%	11.36%	-6.44%	-11.47%	-8.22%	-10.90%	10.05%

Production and Transmission allocator is the Average & Excess 4NCP factor.

Source: Page 1, Schedule 7 of the Direct Testimony of Maurice Brubaker in Case No. EO-96-15 before the Missouri Public Service Commission.

AMEREN UE

Cost of Service Study from Case No. EO-96-15 Adjusted for \$16 Million Decrease Test Year Ended September 1996

Line	Description	Missouri Total (1)	Residential (2)	Small General Service (3)	Large General Service (4)	Small Primary Service (5)	Large Primary Service (6)	Lighting (7)
Rate Base:								
1	Gross Plant in Service	\$ 7,041,298	\$ 3,678,197	\$ 864,464	\$ 1,312,672	\$ 638,146	\$ 416,856	\$ 130,963
2	Reserves for Depreciation	(2,552,178)	(1,343,255)	(313,600)	(472,311)	(225,594)	(147,541)	(49,878)
3	Other Rate Base Items	<u>(665,195)</u>	<u>(359,007)</u>	<u>(87,716)</u>	<u>(119,026)</u>	<u>(53,043)</u>	<u>(33,523)</u>	<u>(12,881)</u>
4	Total Rate Base	\$ 3,823,925	\$ 1,975,934	\$ 463,148	\$ 721,336	\$ 359,510	\$ 235,793	\$ 68,204
Revenue:								
5	Base	\$ 1,678,864	\$ 742,338	\$ 214,090	\$ 363,618	\$ 200,362	\$ 134,979	\$ 23,478
6	\$16 Million Decrease	(15,796)	-	(3,704)	(6,291)	(3,466)	(2,335)	-
7	Other	<u>17,586</u>	<u>9,412</u>	<u>2,661</u>	<u>3,347</u>	<u>1,016</u>	<u>689</u>	<u>461</u>
8	Total Revenue	\$ 1,680,654	\$ 751,750	\$ 213,047	\$ 360,674	\$ 197,912	\$ 133,333	\$ 23,938
Expenses:								
9	Operating & Maintenance	\$ 796,797	\$ 368,399	\$ 93,477	\$ 157,038	\$ 101,620	\$ 66,542	\$ 9,720
10	Depreciation	209,716	110,921	25,784	38,507	18,321	11,945	4,238
11	Property Taxes	78,287	40,895	9,611	14,595	7,095	4,635	1,456
12	Income Taxes	204,703	105,776	24,793	38,615	19,245	12,622	3,651
13	Adj for Decrease	(6,045)	(3,124)	(732)	(1,140)	(568)	(373)	(108)
14	Payroll Taxes	19,240	9,752	2,339	3,362	2,168	1,296	323
15	Federal Excise Taxes	<u>555</u>	<u>269</u>	<u>68</u>	<u>114</u>	<u>59</u>	<u>40</u>	<u>5</u>
16	Total Expenses	\$ 1,303,252	\$ 632,889	\$ 155,340	\$ 251,089	\$ 147,940	\$ 96,707	\$ 19,285
19	Adjusted Operating Income	\$ 377,402	\$ 118,860	\$ 57,707	\$ 109,585	\$ 49,972	\$ 36,626	\$ 4,653
20	Rate of Return	9.87%	6.02%	12.46%	15.19%	13.90%	15.53%	6.82%
21	Index	100	61	126	154	141	157	69
Increase/Decrease to Equal Cost of Service:								
22	Amount	\$ 0	\$ 76,155	\$ (11,996)	\$ (38,392)	\$ (14,490)	\$ (13,354)	\$ 2,078
23	Percent of Base Revenue	0.00%	10.26%	-5.70%	-10.74%	-7.36%	-10.07%	8.85%

Production and Transmission allocator is the Average & Excess 4NCP factor.

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)	Lighting & Public Authority (7)
1	Current Revenue	\$ 1,835,982	\$ 806,432	\$ 229,944	\$ 408,658	\$ 202,676	\$ 162,582	\$ 25,690
	Increase/Decrease Needed to Equal Cost of Service:							
2	Percent *		10.26%	-5.70%	-10.74%	-7.36%	-10.07%	8.85%
3	Amount	\$ (3,299)	\$ 82,730	\$ (13,112)	\$ (43,908)	\$ (14,915)	\$ (16,368)	\$ 2,274
4	Revenue at Equal COS	\$ 1,832,683	\$ 889,162	\$ 216,832	\$ 364,751	\$ 187,761	\$ 146,214	\$ 27,964
5	Adjusted Revenue at Equal COS	\$ 1,835,982	\$ 890,763	\$ 217,222	\$ 365,407	\$ 188,099	\$ 146,477	\$ 28,014
6	Revenue Change to Equal COS	\$ -	\$ 84,330	\$ (12,721)	\$ (43,251)	\$ (14,577)	\$ (16,105)	\$ 2,324
7	Recommended Allocation of \$250 Million Decrease Revenue after COS	\$ (250,000)	\$ (121,292)	\$ (29,579)	\$ (49,756)	\$ (25,613)	\$ (19,945)	\$ (3,815)
8	Adjustment and \$250 Million Decrease	\$ 1,585,982	\$ 769,470	\$ 187,644	\$ 315,651	\$ 162,486	\$ 126,532	\$ 24,200
9	Change from Current Revenue: Amount	\$ (250,000)	\$ (36,962)	\$ (42,300)	\$ (93,008)	\$ (40,190)	\$ (36,050)	\$ (1,490)
10	Percent	-13.62%	-4.58%	-18.40%	-22.76%	-19.83%	-22.17%	-5.80%
11	Recommended Allocation of \$187.5 Million Decrease	\$ (187,500)	\$ (27,722)	\$ (31,725)	\$ (69,756)	\$ (30,142)	\$ (27,038)	\$ (1,118)
12	Percent	-10.21%	-3.44%	-13.80%	-17.07%	-14.87%	-16.63%	-4.35%
13	Recommended Allocation of \$125 Million Decrease	\$ (125,000)	\$ (18,481)	\$ (21,150)	\$ (46,504)	\$ (20,095)	\$ (18,025)	\$ (745)
14	Percent	-6.81%	-2.29%	-9.20%	-11.38%	-9.91%	-11.09%	-2.90%
15	Recommended Allocation of \$62.5 Million Decrease	\$ (62,500)	\$ (9,241)	\$ (10,575)	\$ (23,252)	\$ (10,047)	\$ (9,013)	\$ (373)
16	Percent	-3.40%	-1.15%	-4.60%	-5.69%	-4.96%	-5.54%	-1.45%

* From Line 23 of Schedule 2

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)	Lighting & Public Authority (7)
1	Current Revenue	\$ 1,835,982	\$ 806,432	\$ 229,944	\$ 408,658	\$ 202,676	\$ 162,582	\$ 25,690
	Increase/Decrease Needed to Move Half-way to Cost of Service:							
2	Percent *		5.13%	-2.85%	-5.37%	-3.68%	-5.03%	4.43%
3	Amount	\$ (1,649)	\$ 41,365	\$ (6,556)	\$ (21,954)	\$ (7,458)	\$ (8,184)	\$ 1,137
4	Revenue at Equal COS	\$ 1,834,332	\$ 847,797	\$ 223,388	\$ 386,704	\$ 195,218	\$ 154,398	\$ 26,827
	Adjusted Revenue at Equal COS	\$ 1,835,982	\$ 848,560	\$ 223,589	\$ 387,052	\$ 195,394	\$ 154,537	\$ 26,851
6	Revenue Change to Equal COS	\$ -	\$ 42,127	\$ (6,355)	\$ (21,606)	\$ (7,282)	\$ (8,045)	\$ 1,161
	Recommended Allocation of \$250 Million Decrease	\$ (250,000)	\$ (115,546)	\$ (30,445)	\$ (52,704)	\$ (26,606)	\$ (21,043)	\$ (3,656)
	Revenue after COS Adjustment and \$250 Million Decrease	\$ 1,585,982	\$ 733,014	\$ 193,143	\$ 334,348	\$ 168,788	\$ 133,494	\$ 23,195
	Change from Current Revenue:							
9	Amount	\$ (250,000)	\$ (73,418)	\$ (36,800)	\$ (74,310)	\$ (33,888)	\$ (29,088)	\$ (2,495)
10	Percent	-13.62%	-9.10%	-16.00%	-18.18%	-16.72%	-17.89%	-9.71%
	Recommended Allocation of \$187.5 Million Decrease	\$ (187,500)	\$ (55,064)	\$ (27,600)	\$ (55,732)	\$ (25,416)	\$ (21,816)	\$ (1,871)
12	Percent	-10.21%	-6.83%	-12.00%	-13.64%	-12.54%	-13.42%	-7.28%
	Recommended Allocation of \$125 Million Decrease	\$ (125,000)	\$ (36,709)	\$ (18,400)	\$ (37,155)	\$ (16,944)	\$ (14,544)	\$ (1,248)
14	Percent	-6.81%	-4.55%	-8.00%	-9.09%	-8.36%	-8.95%	-4.86%
	Recommended Allocation of \$62.5 Million Decrease	\$ (62,500)	\$ (18,355)	\$ (9,200)	\$ (18,577)	\$ (8,472)	\$ (7,272)	\$ (624)
16	Percent	-3.40%	-2.28%	-4.00%	-4.55%	-4.18%	-4.47%	-2.43%

* 50% of Line 23 of Schedule 2

**Average Cost per kWh of Typical Industrial Bills
for 2001 in Missouri, Arkansas, Illinois, Indiana, Iowa,
Kansas, Kentucky, Oklahoma, Tennessee and Wisconsin
(As Reported to EEI Typical Bill Data Base)**

<u>Line</u>	<u>Utility Company</u>	<u>Industrial</u>
1	UtiliCorp United, Inc., KS	6.27 ¢
2	Commonwealth Edison Company	6.23
3	Northern Indiana Public Service Company	6.05
4	Central Illinois Light Company	5.25
5	Illinois Power Company	5.21
6	TVA/Memphis Light, Gas and Water Division	4.92
7	AmerenUE, MO	4.90
8	Southwestern Public Service Company, KS	4.88
9	Madison Gas & Electric Company	4.87
10	Northwestern Wisconsin Electric Company	4.84
11	Entergy Arkansas, Inc.	4.79
12	KG&E Company	4.77
13	Public Service Company of Oklahoma	4.75
14	AEP (Indiana Michigan Power), IN	4.62
15	Alliant Energy-IES Utilities, Inc. (Northern & Southeastern Zone), IA	4.61
16	Northern States Power Company (Wisconsin)	4.57
17	MidAmerican Energy - East System, IA	4.54
18	Central Illinois Public Service Company	4.52
19	Wisconsin Electric Power Company	4.48
20	Kansas City Power & Light Company, KS	4.47
21	Union Light, Heat and Power	4.44
22	MidAmerican Energy-South System, IA	4.35
23	OG&E Electric Services	4.32
24	Southern Indiana Gas & Electric Company	4.22
25	Kansas City Power & Light Company, MO	4.19
26	Indianapolis Power & Light Company	4.15
27	Southwestern Public Service Company, OK	4.13
28	KPL Company (Western Resources Inc.)	4.09
29	Empire District Electric Company, OK	4.08
30	Alliant Energy-WP&L	4.08
31	Southwestern Electric Power Company, AR	4.07
32	Empire District Electric Company, MO	3.91
33	UtiliCorp United, Inc., MO	3.91
34	Empire District Electric Company, AR	3.90
35	Superior Water, Light & Power Company	3.85
36	OG&E Electric Services, AR	3.82
37	Alliant Energy-Interstate Power Company, IA	3.82
38	UtiliCorp United, Inc./St. Joseph Light & Power Co., MO	3.81
39	MidAmerican Energy-North System, IA	3.80
40	Alliant Energy-Interstate Power Company, IL	3.79
41	AmerenUE, IL	3.72
42	MidAmerican Energy, IL	3.67
43	Black River Coop	3.66
44	Empire District Electric Company, KS	3.54
45	Wisconsin Public Service Corporation	3.54
46	PSI Energy, Inc.	3.47
47	Alliant Energy-IES Utilities, Inc. (Southern Zone), IA	3.41
48	Louisville Gas & Electric Company	3.37
49	AEP (Kingsport Power Rate Area)	3.18
50	Kentucky Utilities Company	2.81
51	AEP (Kentucky Power Rate Area)	2.78
52	Average for Region	4.26 ¢

**Average Cost per kWh of Typical Residential Bills
for 2001 in Missouri, Arkansas, Illinois, Indiana, Iowa,
Kansas, Kentucky, Oklahoma, Tennessee and Wisconsin
(As Reported to EEI Typical Bill Data Base)**

<u>Line</u>	<u>Utility Company</u>	<u>Residential</u>
1	Northern Indiana Public Service Company	10.24 ¢
2	Alliant Energy-IES Utilities, Inc. (Northern & Southeastern Zone), IA	10.14
3	MidAmerican Energy-South System, IA	9.57
4	MidAmerican Energy - East System, IA	9.54
5	Commonwealth Edison Company	9.36
6	Entergy Arkansas, Inc.	9.35
7	Illinois Power Company	8.97
8	Madison Gas & Electric Company	8.97
9	KG&E Company	8.86
10	UtiliCorp United, Inc., KS	8.48
11	OG&E Electric Services	8.45
12	MidAmerican Energy, IL	8.44
13	Wisconsin Electric Power Company	8.26
14	Alliant Energy-Interstate Power Company, IA	8.24
15	MidAmerican Energy-North System, IA	8.21
16	Central Illinois Light Company	8.14
17	Central Illinois Public Service Company	8.09
18	AmerenUE, MO	7.90
19	Kansas City Power & Light Company, KS	7.80
20	Northern States Power Company (Wisconsin)	7.63
21	Southern Indiana Gas & Electric Company	7.58
22	UtiliCorp United, Inc., MO	7.57
23	Southwestern Public Service Company, KS	7.52
24	Kansas City Power & Light Company, MO	7.37
25	AmerenUE, IL	7.33
26	Northwestern Wisconsin Electric Company	7.33
27	Wisconsin Public Service Corporation	7.33
28	Alliant Energy-WP&L	7.31
29	Southwestern Public Service Company, OK	7.31
30	Southwestern Electric Power Company, AR	7.29
31	Public Service Company of Oklahoma	7.28
32	Empire District Electric Company, AR	7.14
33	AEP (Indiana Michigan Power), IN	7.14
34	OG&E Electric Services, AR	7.12
35	Black River Coop	7.04
36	PSI Energy, Inc.	7.03
37	Empire District Electric Company, MO	7.02
38	Indianapolis Power & Light Company	7.00
39	Empire District Electric Company, OK	6.92
40	Alliant Energy-Interstate Power Company, IL	6.89
41	Union Light, Heat and Power	6.77
42	UtiliCorp United, Inc./St. Joseph Light & Power Co., MO	6.53
43	TVA/Memphis Light, Gas and Water Division	6.50
44	Superior Water, Light & Power Company	6.48
45	Alliant Energy-IES Utilities, Inc. (Southern Zone), IA	6.46
46	KPL Company (Western Resources Inc.)	6.27
47	Empire District Electric Company, KS	6.21
48	Louisville Gas & Electric Company	5.48
49	AEP (Kentucky Power Rate Area)	5.07
50	AEP (Kingsport Power Rate Area)	4.94
51	Kentucky Utilities Company	4.32
52	Average for Region	7.53 ¢

**Average Cost per kWh of Commercial Typical Bills
for 2001 in Missouri, Arkansas, Illinois, Indiana, Iowa,
Kansas, Kentucky, Oklahoma, Tennessee and Wisconsin
(As Reported to EEI Typical Bill Data Base)**

<u>Line</u>	<u>Utility Company</u>	<u>Commercial</u>
1	Northern Indiana Public Service Company	9.95 ¢
2	Commonwealth Edison Company	8.58
3	Illinois Power Company	8.24
4	UtiliCorp United, Inc., KS	8.05
5	Alliant Energy-IES Utilities, Inc. (Northern & Southeastern Zone), IA	7.27
6	KG&E Company	7.25
7	Central Illinois Light Company	7.08
8	Kansas City Power & Light Company, KS	7.07
9	MidAmerican Energy - East System, IA	7.03
10	Wisconsin Electric Power Company	6.92
11	Central Illinois Public Service Company	6.82
12	AmerenUE, MO	6.77
13	OG&E Electric Services	6.76
14	Madison Gas & Electric Company	6.74
15	MidAmerican Energy-South System, IA	6.73
16	Southwestern Public Service Company, OK	6.73
17	TVA/Memphis Light, Gas and Water Division	6.66
18	Indianapolis Power & Light Company	6.46
19	Southwestern Public Service Company, KS	6.45
20	Kansas City Power & Light Company, MO	6.44
21	Union Light, Heat and Power	6.44
22	Entergy Arkansas, Inc.	6.36
23	AEP (Indiana Michigan Power), IN	6.28
24	MidAmerican Energy, IL	6.24
25	Northwestern Wisconsin Electric Company	6.24
26	Public Service Company of Oklahoma	6.08
27	Northern States Power Company (Wisconsin)	6.01
28	Empire District Electric Company, AR	5.94
29	Empire District Electric Company, OK	5.91
30	Empire District Electric Company, KS	5.84
31	Alliant Energy-Interstate Power Company, IL	5.68
32	AmerenUE, IL	5.64
33	Alliant Energy-WP&L	5.62
34	Southern Indiana Gas & Electric Company	5.61
35	Black River Coop	5.59
36	MidAmerican Energy-North System, IA	5.39
37	Southwestern Electric Power Company, AR	5.36
38	Empire District Electric Company, MO	5.27
39	OG&E Electric Services, AR	5.26
40	Alliant Energy-Interstate Power Company, IA	5.25
41	UtiliCorp United, Inc., MO	5.17
42	Louisville Gas & Electric Company	5.13
43	PSI Energy, Inc.	5.11
44	KPL Company (Western Resources Inc.)	4.96
45	Superior Water, Light & Power Company	4.92
46	AEP (Kentucky Power Rate Area)	4.90
47	AEP (Kingsport Power Rate Area)	4.89
48	Alliant Energy-IES Utilities, Inc. (Southern Zone), IA	4.88
49	Wisconsin Public Service Corporation	4.83
50	UtiliCorp United, Inc./St. Joseph Light & Power Co., MO	4.63
51	Kentucky Utilities Company	3.79
52	Average for Region	6.14 ¢

**Average Cost per kWh of Typical Bills
for 2001 in Missouri, Arkansas, Illinois, Indiana, Iowa,
Kansas, Kentucky, Oklahoma, Tennessee and Wisconsin
(As Reported to EEI Typical Bill Data Base)**

Description of Usage and Loads for Typical Bills

EEI data is reported for a winter month (January) and a summer month (July).

The residential usage is based on 750 kWh for the winter month and 1,000 kWh for the summer month.

The commercial usage is based on 100 kW with 30,000 kWh (41% load factor) for both time periods.

The industrial usage is based on 10,000 kW with 5,000,000 kWh (68% load factor) for both time periods.

Footnote to Schedule 5, pages 1 through 3

EEI data reflects information reported by the utilities. Applicable add-on taxes are often included.

Ameren UE has traditionally included add-on taxes in its reported data. In 2001, Ameren UE included add-on taxes in the January calculation but not in the July calculation. For consistency, we have included add-on taxes for the July calculation.

**Average Cost per kWh of Typical Industrial Bills
for 2001 in Missouri, Arkansas, Illinois, Indiana, Iowa,
Kansas, Kentucky, Oklahoma, Tennessee and Wisconsin
(EEI Typical Bill Data Base with Add-on Taxes Removed)**

<u>Line</u>	<u>Utility Company</u>	<u>Industrial</u>
1	UtiliCorp United, Inc., KS	6.27 ¢
2	Commonwealth Edison Company	6.13
3	Northern Indiana Public Service Company	5.76
4	Central Illinois Light Company	4.98
5	Illinois Power Company	4.95
6	TVA/Memphis Light, Gas and Water Division	4.92
7	Southwestern Public Service Company, KS	4.88
8	Madison Gas & Electric Company	4.87
9	Northwestern Wisconsin Electric Company	4.84
10	Entergy Arkansas, Inc.	4.79
11	KG&E Company	4.77
12	Public Service Company of Oklahoma	4.74
13	AEP (Indiana Michigan Power), IN	4.62
14	Alliant Energy-IES Utilities, Inc. (Northern & Southeastern Zone), IA	4.61
15	Northern States Power Company (Wisconsin)	4.57
16	MidAmerican Energy - East System, IA	4.54
17	Central Illinois Public Service Company	4.49
18	Wisconsin Electric Power Company	4.48
19	Kansas City Power & Light Company, KS	4.47
20	Union Light, Heat and Power	4.44
21	AmerenUE, MO	4.41
22	MidAmerican Energy-South System, IA	4.35
23	OG&E Electric Services	4.28
24	Southern Indiana Gas & Electric Company	4.22
25	Kansas City Power & Light Company, MO	4.19
26	Indianapolis Power & Light Company	4.15
27	KPL Company (Western Resources Inc.)	4.09
28	Empire District Electric Company, OK	4.08
29	Alliant Energy-WP&L	4.08
30	Southwestern Public Service Company, OK	4.03
31	Southwestern Electric Power Company, AR	4.03
32	Empire District Electric Company, MO	3.91
33	UtiliCorp United, Inc., MO	3.91
34	Empire District Electric Company, AR	3.90
35	Superior Water, Light & Power Company	3.85
36	Alliant Energy-Interstate Power Company, IA	3.82
37	UtiliCorp United, Inc./St. Joseph Light & Power Co., MO	3.81
38	MidAmerican Energy-North System, IA	3.80
39	Alliant Energy-Interstate Power Company, IL	3.79
40	AmerenUE, IL	3.68
41	OG&E Electric Services, AR	3.68
42	MidAmerican Energy, IL	3.67
43	Black River Coop	3.66
44	Empire District Electric Company, KS	3.54
45	Wisconsin Public Service Corporation	3.54
46	PSI Energy, Inc.	3.47
47	Alliant Energy-IES Utilities, Inc. (Southern Zone), IA	3.41
48	Louisville Gas & Electric Company	3.37
49	AEP (Kingsport Power Rate Area)	3.18
50	Kentucky Utilities Company	2.81
51	AEP (Kentucky Power Rate Area)	2.78
52	Average for Region	4.23 ¢

**Average Cost per kWh of Typical Residential Bills
for 2001 in Missouri, Arkansas, Illinois, Indiana, Iowa,
Kansas, Kentucky, Oklahoma, Tennessee and Wisconsin
(EEI Typical Bill Data Base with Add-on Taxes Removed)**

<u>Line</u>	<u>Utility Company</u>	<u>Residential</u>
1	Alliant Energy-IES Utilities, Inc. (Northern & Southeastern Zone), IA	10.14 ¢
2	Northern Indiana Public Service Company	9.75
3	MidAmerican Energy-South System, IA	9.57
4	MidAmerican Energy - East System, IA	9.54
5	Entergy Arkansas, Inc.	9.35
6	Commonwealth Edison Company	9.21
7	Madison Gas & Electric Company	8.97
8	KG&E Company	8.86
9	Illinois Power Company	8.64
10	UtiliCorp United, Inc., KS	8.48
11	MidAmerican Energy, IL	8.43
12	OG&E Electric Services	8.27
13	Wisconsin Electric Power Company	8.26
14	Alliant Energy-Interstate Power Company, IA	8.24
15	MidAmerican Energy-North System, IA	8.21
16	Central Illinois Public Service Company	8.13
17	Central Illinois Light Company	7.81
18	Kansas City Power & Light Company, KS	7.80
19	Northern States Power Company (Wisconsin)	7.63
20	Southern Indiana Gas & Electric Company	7.61
21	AmerenUE, MO	7.58
22	UtiliCorp United, Inc., MO	7.57
23	Southwestern Public Service Company, KS	7.52
24	Kansas City Power & Light Company, MO	7.37
25	Northwestern Wisconsin Electric Company	7.33
26	Wisconsin Public Service Corporation	7.33
27	Alliant Energy-WP&L	7.31
28	Public Service Company of Oklahoma	7.17
29	Southwestern Public Service Company, OK	7.17
30	AmerenUE, IL	7.15
31	Empire District Electric Company, AR	7.14
32	AEP (Indiana Michigan Power), IN	7.14
33	Southwestern Electric Power Company, AR	7.08
34	Black River Coop	7.04
35	PSI Energy, Inc.	7.03
36	Empire District Electric Company, MO	7.02
37	Indianapolis Power & Light Company	7.00
38	Empire District Electric Company, OK	6.92
39	OG&E Electric Services, AR	6.91
40	Alliant Energy-Interstate Power Company, IL	6.89
41	Union Light, Heat and Power	6.77
42	UtiliCorp United, Inc./St. Joseph Light & Power Co., MO	6.53
43	TVA/Memphis Light, Gas and Water Division	6.50
44	Superior Water, Light & Power Company	6.48
45	Alliant Energy-IES Utilities, Inc. (Southern Zone), IA	6.46
46	KPL Company (Western Resources Inc.)	6.27
47	Empire District Electric Company, KS	6.21
48	Louisville Gas & Electric Company	5.48
49	AEP (Kentucky Power Rate Area)	5.07
50	AEP (Kingsport Power Rate Area)	4.94
51	Kentucky Utilities Company	4.32
52	Average for Region	7.48 ¢

**Average Cost per kWh of Typical Commercial Bills
for 2001 in Missouri, Arkansas, Illinois, Indiana, Iowa,
Kansas, Kentucky, Oklahoma, Tennessee and Wisconsin
(EEI Typical Bill Data Base with Add-on Taxes Removed)**

<u>Line</u>	<u>Utility Company</u>	<u>Commercial</u>
1	Northern Indiana Public Service Company	9.48 ¢
2	Commonwealth Edison Company	8.44
3	UtiliCorp United, Inc., KS	8.05
4	Illinois Power Company	7.92
5	Alliant Energy-IES Utilities, Inc. (Northern & Southeastern Zone), IA	7.27
6	KG&E Company	7.25
7	Kansas City Power & Light Company, KS	7.07
8	MidAmerican Energy - East System, IA	7.03
9	Wisconsin Electric Power Company	6.92
10	Central Illinois Light Company	6.76
11	Madison Gas & Electric Company	6.74
12	MidAmerican Energy-South System, IA	6.73
13	Southwestern Public Service Company, OK	6.69
14	TVA/Memphis Light, Gas and Water Division	6.66
15	OG&E Electric Services	6.56
16	Indianapolis Power & Light Company	6.46
17	Southwestern Public Service Company, KS	6.45
18	Kansas City Power & Light Company, MO	6.44
19	Union Light, Heat and Power	6.44
20	Central Illinois Public Service Company	6.39
21	Entergy Arkansas, Inc.	6.36
22	AEP (Indiana Michigan Power), IN	6.28
23	Northwestern Wisconsin Electric Company	6.24
24	MidAmerican Energy, IL	6.20
25	AmerenUE, MO	6.10
26	Northern States Power Company (Wisconsin)	6.01
27	Empire District Electric Company, AR	5.94
28	Empire District Electric Company, OK	5.91
29	Public Service Company of Oklahoma	5.88
30	Empire District Electric Company, KS	5.84
31	Alliant Energy-Interstate Power Company, IL	5.68
32	Alliant Energy-WP&L	5.62
33	Black River Coop	5.59
34	Southern Indiana Gas & Electric Company	5.49
35	MidAmerican Energy-North System, IA	5.39
36	AmerenUE, IL	5.29
37	Empire District Electric Company, MO	5.27
38	Alliant Energy-Interstate Power Company, IA	5.25
39	Southwestern Electric Power Company, AR	5.20
40	UtiliCorp United, Inc., MO	5.17
41	Louisville Gas & Electric Company	5.13
42	PSI Energy, Inc.	5.11
43	OG&E Electric Services, AR	5.06
44	KPL Company (Western Resources Inc.)	4.96
45	Superior Water, Light & Power Company	4.92
46	AEP (Kentucky Power Rate Area)	4.90
47	AEP (Kingsport Power Rate Area)	4.88
48	Alliant Energy-IES Utilities, Inc. (Southern Zone), IA	4.88
49	Wisconsin Public Service Corporation	4.83
50	UtiliCorp United, Inc./St. Joseph Light & Power Co., MO	4.63
51	Kentucky Utilities Company	3.79
52	Average for Region	6.07 ¢

Exhibit No.
Witness: Maurice Brubaker
Type of Exhibit: Rebuttal Testimony
Sponsoring Party: Missouri Industrial Energy Consumers
Case No. EC-2002-1
Subjects: Revenue Allocation/Rate Design

**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.	)	

Rebuttal Testimony of

Maurice Brubaker

On Behalf of

Missouri Industrial Energy Consumers

May 17, 2002
Project 7651



BRUBAKER & ASSOCIATES, INC.

ST. LOUIS, MO 63141-2000

**Before the Public Service Commission
of the State of Missouri**

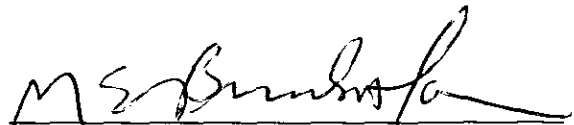
Staff of the Missouri Public Service Commission	)	
	)	
Complainant	)	
v.	)	Case No. EC-2002-1
Union Electric Company, d/b/a AmerenUE	)	
	)	
Respondent.	)	

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

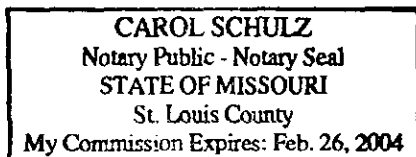
Affidavit of Maurice Brubaker

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 rebuttal 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 rebuttal testimony is true and correct and shows the matters and things it purports to show.


Maurice Brubaker

Subscribed and sworn to before this 16th day of May 2002.




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.	)	

Rebuttal 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 WHAT IS YOUR OCCUPATION?**

5 A I am a consultant in the field of public utility regulation and president of Brubaker &
6 Associates, Inc. (BAI), energy, economic and regulatory consultants.

7 **Q PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

8 A This information is included in Appendix A to my testimony.

9 **Q ON WHOSE BEHALF ARE YOU PRESENTING REBUTTAL TESTIMONY?**

10 A I am presenting rebuttal testimony on behalf of the Missouri Industrial Energy
11 Consumers (MIEC). The MIEC Group includes many of AmerenUE's (UE or
12 Company) largest purchasers of electricity service.

Maurice Brubaker
Page 1

1 **Q WHAT IS THE SUBJECT OF YOUR REBUTTAL TESTIMONY?**

2 **A I will offer testimony in rebuttal to the revenue allocation/rate design testimony**
3 **presented by Staff witnesses James Watkins and Janice Pyatte.**

4 **Q ARE OTHER WITNESSES TESTIFYING ON BEHALF OF MIEC?**

5 **A Yes. Mr. Michael Gorman presents testimony in response to Staff's analysis of cost**
6 **of capital, and Mr. James Selecky presents testimony concerning the issue of**
7 **negative salvage.**

8 The fact that we have not addressed other adjustments or positions taken by
9 Staff should not be interpreted to mean either that we endorse those positions, or that
10 we oppose them.

11 **ALLOCATION OF REVENUE DECREASE**

12 **Q WHAT METHODOLOGY HAS MR. WATKINS OF THE STAFF PROPOSED FOR**
13 **ALLOCATING ANY REVENUE DECREASE THAT RESULTS FROM THIS**
14 **PROCEEDING?**

15 **A As explained on Page 3 of his testimony, he bases his recommendations on a**
16 **Stipulation and Agreement (Stipulation) among the parties (subsequently approved**
17 **by the Commission on November 18, 1999) in UE's most recent rate design case,**
18 **Missouri PSC Case No. EO-96-15.**

19 **Q PLEASE EXPLAIN THAT STIPULATION IN MORE DETAIL.**

20 **A That Stipulation was for the purpose of determining how any rate reduction that**
21 **followed the end of the third year of the earnings sharing plan should be allocated**
22 **among customer classes. The parties agreed that the first \$25 million of any rate**

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1 reduction should be applied to only the non-residential and non-lighting classes, and
2 that any decrease in excess of \$25 million should be allocated as an equal
3 percentage applied to each non-lighting class.

4 **Q WHAT WAS THE RANGE OF RATE DECREASES BEING CONSIDERED AT THE**
5 **TIME THIS STIPULATION WAS SIGNED?**

6 A The range of decreases being considered was from approximately \$16 million on the
7 part of UE, to approximately \$30 million on the part of the Staff.

8 **Q SPECIFICALLY, HOW DOES STAFF PROPOSE, IN THIS CASE, TO USE THE**
9 **RESULTS OF THIS STIPULATION?**

10 A The end result of the revenue reduction at the end of the third year of the earnings
11 sharing plan was, as shown on Schedule 6 of Staff witness Pyatte's testimony in this
12 proceeding, approximately \$16 million. Mr. Watkins and Ms. Pyatte recommend
13 allocating an additional amount of approximately \$9 million on an equal percentage
14 basis to the non-residential and non-lighting customers (as in the Stipulation), and
15 applying a uniform percentage decrease to the non-customer charge revenues of all
16 schedules (including residential) for any additional amount of decrease.

17 **Q IS IT REASONABLE TO CONTINUE TO APPLY THE TERMS OF THE**
18 **STIPULATION FROM THE EO-96-15 PROCEEDING TO THE AMOUNT OF**
19 **REVENUE DECREASE THAT MAY BE ORDERED AS A RESULT OF THIS**
20 **COMPLAINT CASE?**

21 A No, it is not. The amount of money at stake in EO-96-16 was, as noted above, within
22 the range of \$16-\$30 million. There is certainly no logical basis to translate the

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1 results of a stipulation based on a nominal \$25 million decrease to this case, where
2 the overall decrease being proposed by Staff is roughly ten times that amount!

3 Furthermore, the Stipulation in EO-96-15 has no precedential value and no
4 bearing on this case. Section 19 of the Stipulation makes this abundantly clear.
5 Moreover, MIEC never would have agreed to the Stipulation in EO-96-15 had it been
6 expected to apply to a larger amount of revenue decrease than what was at issue in
7 the rate design case. At larger amounts of revenue decrease, the movement toward
8 cost of service is inadequate. The Commission should not utilize the Stipulation from
9 Case EO-96-15 in any way, in allocating the decrease in this proceeding.

10 **Q MR. WATKINS ATTACHES TO HIS DIRECT TESTIMONY A SUMMARY OF**
11 **STAFF'S COST OF SERVICE STUDY FROM CASE NO. EO-96-15. WHAT USE**
12 **DOES STAFF MAKE OF THIS COST OF SERVICE STUDY?**

13 **A** At Page 4 of his direct testimony Mr. Watkins refers to this study and asserts that
14 Staff's rate design recommendation in this case is consistent with the cost of serving
15 each customer class, as defined by Staff's cost of service study.

16 **Q DO YOU AGREE?**

17 **A** No. Mr. Watkins' summary shows that the residential class required a 3.37%
18 increase to reach cost of service, while the commercial and industrial customers (as a
19 group) required a 3.97% decrease. Thus, there was a 7.34 percentage point
20 difference between the two groups of customers to achieve cost of service (3.37% +
21 3.97%). In Case No. EO-96-15 this differential was lowered by 1.73 percentage
22 points as shown on Schedule 6 attached to Ms. Pyatte's testimony. This leaves a
23 5.61 percentage point differential at an overall decrease of \$25 million.

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1 None of the revenue reduction scenarios illustrated by Ms. Pyatte (ranging
2 from \$50 million to \$300 million) contain that large of a differential between the
3 decrease to the residential class and the decrease to the non-residential classes.
4 Thus, even as measured by its own yardstick, Staff's revenue reduction allocation
5 does not conform to the results of its own cost of service study.

6 **Q HOW MUCH DIFFERENTIAL IS THERE IN STAFF'S ALLOCATIONS?**

7 A To illustrate, at a \$250 million reduction, the indicated decrease for the residential
8 class is 12.5%, while the average decrease for non-residential customers is 14.5%, a
9 differential of only 2 percentage points.

10 **Q SHOULD STAFF'S COST OF SERVICE STUDY BE RELIED UPON?**

11 A No. As was extensively discussed in Case No. EO-96-15, Staff's class cost of
12 service study is unique to the Missouri PSC Staff. It is not utilized by anyone else,
13 anywhere, that I am aware of. It is not one of the methods described in the National
14 Association of Regulatory Utility Commissioners (NARUC) cost allocation manual, nor
15 has it been proposed in any other jurisdiction that I am aware of. It is far outside the
16 mainstream of accepted cost allocation methods, and has a characteristic of
17 significantly over-allocating costs to high load factor customers.

18 **Q WERE THERE OTHER COST OF SERVICE STUDIES OFFERED IN CASE NO. EO-**
19 **96-15?**

20 A Yes. MIEC and UE offered cost of service studies using traditional methodologies.
21 The traditional cost or service study most favorable to the residential class was the
22 Average and Excess – Four Non-Coincident Peak method (A&E-4NCP). Schedule 1

1 attached to this testimony is a copy of the summary from a cost of service study using
2 the A&E-4NCP method, which I submitted in that proceeding.

3 **Q WHAT DOES IT SHOW?**

4 A It shows that when traditional methods are used there is a much greater differential
5 between the cost of service for the residential customers and the commercial/
6 industrial customers than is the case under Staff's unique methodology.

7 **Q CAN THE RESULTS OF THIS COST OF SERVICE STUDY BE USED TO**
8 **DEVELOP A METHOD FOR ALLOCATING ANY REVENUE DECREASE THAT**
9 **RESULTS FROM THIS CASE?**

10 A Yes.

11 **Q WHAT STEPS ARE NECESSARY TO USE THIS COST OF SERVICE STUDY?**

12 A The first step that is necessary is to adjust the results of the class cost of service
13 study from Case No. EO-96-15 to recognize the reduction in revenues that was
14 allocated to the non-residential, non-lighting customer classes in that proceeding.

15 Schedule 2 attached to this testimony shows the development of the adjusted
16 cost of service study. The results were developed by reducing the base rate
17 revenues from the non-residential, non-lighting groups by 1.73%. An adjustment was
18 made for income taxes, and the income tax adjustment was then allocated to
19 customer classes. A new operating income, rate of return and index of return were
20 then developed as shown on Lines 19 through 21, respectively. Line 22 shows the
21 dollar amount of increase or decrease required to move each class to cost of service
22 after recognizing that some movement toward cost of service was achieved in Case

1 No. EO-96-15. Line 23 shows the resulting percentage increase or decrease on base
2 revenues to achieve equality with cost of service.

3 **Q USING THIS ADJUSTED COST OF SERVICE INFORMATION, HOW DO YOU**
4 **PROPOSE THAT ANY REVENUE DECREASE BE ALLOCATED TO THE**
5 **VARIOUS CUSTOMER CLASSES?**

6 A Schedule 3 attached to this testimony shows my proposed spread of any revenue
7 decrease to customer classes. I began with the current revenues from each
8 customer class, which were taken from Schedule 6 of Ms. Pyatte's testimony. Line 2
9 shows the application of the percentage increase or decrease as developed on
10 Schedule 2. That is, these are the percentage changes in revenues required to move
11 each class to cost of service assuming no overall change in revenues. Because the
12 mix of revenues between classes is different in the current test year than it was in the
13 test year used in the rate design case, applying these percentages directly does not
14 produce exactly offsetting increases and decreases. As shown on Line 3, the net
15 difference from zero is approximately \$3.3 million. Class revenues were scaled
16 proportionately to reach the adjusted revenues at present rates, assuming rates equal
17 to cost of service and no overall revenue change. The increases and decreases by
18 class are shown on Line 6.

19 **Q HOW DID YOU PROCEED FROM THIS POINT?**

20 A I then examined how a \$250 million revenue decrease would be spread. I decided
21 that if I was beginning with rates equal to cost of service it would be generally
22 reasonable to spread the decrease on an equal percentage basis. This is what is
23 shown on Line 7. When that decrease is combined with the cost of service

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adjustments shown on Line 6, the overall resulting change in class revenues is shown on Line 9.

Q HOW WOULD YOU ADJUST THIS AMOUNT IF THE DECREASE IS A NUMBER OTHER THAN \$250 MILLION?

A I would proportionately scale up this amount if the decrease is larger, and scale it down if the decrease is smaller. Lines 11 through 15 of Schedule 3 illustrate how this could be done using revenue decreases equal to 75% (Lines 11 and 12), 50% (Lines 13 and 14), or 25% (Lines 15 and 16) of this amount. With this approach, all customer classes receive a decrease at all levels of overall revenue decrease, with the difference among classes being related to differences in where class revenues are with respect to cost of service.

Q IF THE COMMISSION WANTED TO MOVE TOWARD COST OF SERVICE, BUT NOT TO THE EXTENT YOU HAVE PROPOSED, HAVE YOU PREPARED AN ALTERNATIVE?

A Yes. Schedule 4 attached to this testimony follows the same general approach but instead selects as an ending point movement 50% of the way to cost of service. All customer classes continue to receive a decrease, but the difference in the percentage decreases among customer classes is smaller than in the case of movement all the way to cost of service.

COMPETITIVENESS OF RATES

Q DO YOU HAVE ANY OTHER TESTIMONY TO OFFER CONCERNING THE DISTRIBUTION OF ANY APPROVED REVENUE DECREASE?

1 A Yes. From the overall perspective of economic development and competitiveness,
2 the rates currently faced by industrial customers in the UE service territory in Missouri
3 are substantially above the average for the region. This is outlined on Schedule 5.
4 This information is taken from the semi-annual publications of the Edison Electric
5 Institute "Typical Bills" publication. This publication accumulates information supplied
6 by member companies of the Edison Electric Institute (investor-owned utilities) for a
7 variety of consumption levels. The data in Schedule 5 reflects a 10,000 kW customer
8 with a 68% load factor – a medium-sized industrial load. The data is shown for 51
9 service territories in and around Missouri. (For comparison we have added Black
10 River Electric Cooperative in Missouri and the Tennessee Valley Authority in the
11 Tennessee Valley area.) What this analysis shows is that the rates faced by UE
12 industrial customers in Missouri are higher than those faced by customers of any
13 other Missouri utility, and seventh highest out of the total of 51 service territories in
14 Missouri and surrounding regions.

15 Therefore, reducing the rates of industrial customers would move them into a
16 more competitive position in the region, which would be a benefit for economic
17 development.

18 Q DO THE TYPICAL BILL DATA REPORTED IN SCHEDULE 5 INCLUDE ADD-ON
19 TAXES?

20 A Yes. Most utilities include applicable add-on taxes when presenting their "typical bill"
21 data to EEI.

1 **Q DOESN'T THIS POTENTIALLY DISTORT THE RATE RELATIONSHIPS?**

2 **A** No. To the extent that there are add-on taxes in a given service territory, customers
3 purchasing electricity from the utility serving that area are obligated to pay those
4 taxes. Thus, adding the taxes makes for a more accurate comparison of the cost of
5 electricity among service territories.

6 However, for purposes of providing additional information, Schedule 6 shows
7 the data excluding the taxes that have been added on by the various utilities in
8 reporting their data to EEI. Although AmerenUE in Missouri fares somewhat better
9 when taxes are ignored than when they are included, its rates, especially to industrial
10 customers, continue to be quite high.

11 Furthermore, neither the EEI data shown on Schedule 5, or the adjusted data
12 shown on Schedule 6, reflect the requirement to pay sales tax on the purchase of
13 electricity. With limited exceptions, industrial customers in Missouri are obligated to
14 pay sales tax on their purchases of electricity. This adds an additional 6%-7.5% to
15 the cost of purchased electricity. This is especially relevant because in many other
16 states sales taxes are not imposed on energy purchased for manufacturing purposes.
17 Thus, if all relevant taxes were included, it is likely that the UE service territory in
18 Missouri would rank even more poorly than it does when only gross receipts types of
19 taxes are included.

20 **Q DO YOU HAVE ANY OTHER INFORMATION CONCERNING COMPARATIVE**
21 **RATES?**

22 **A** Yes. There has obviously been much concern about the future of the Ford Plant in
23 Hazelwood, Missouri. The Assembly Plant in Louisville, Kentucky produces the same
24 vehicles as the Hazelwood Plant. I am advised by the Ford personnel responsible for

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1 energy that the electricity rates, which they pay in Louisville, are more than 20% lower
2 than the rates that they pay to AmerenUE for the Hazelwood plant. While many
3 factors determine the overall attractiveness of a given location from an industrial
4 manufacturing perspective, it is without question that energy costs are a factor. On
5 this score, it is clear that energy costs are a significant negative factor for the
6 AmerenUE service territory in Missouri.

7 **Q IN GENERAL, HOW IS MISSOURI FARING IN RELATION TO OTHER STATES IN**
8 **THE CURRENT ECONOMIC CYCLE?**

9 A Apparently, not very well. It was reported on April 20, 2002, by Mr. Joe Driskill,
10 Director of the Department of Economic Development, that Missouri was lagging
11 behind many other states in terms of recovery from the recessionary economy.
12 Noting that Illinois, Iowa, Nebraska, Kansas, Oklahoma, Arkansas, Tennessee and
13 Kentucky were recovering or expanding, he noted that "... There's no clear sign that
14 the national recession's grip on Missouri has eased." This circumstance adds further
15 impetus to the need to forthrightly address all important factors that are a negative to
16 Missouri in terms of economic well-being.

17 **Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?**

18 A Yes, it does.

Qualifications of Maurice Brubaker

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

2 **A Maurice Brubaker. My business mailing address is P. O. Box 412000, 1215 Fern**
3 **Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000.**

4 **Q PLEASE STATE YOUR OCCUPATION.**

5 **A I am a consultant in the field of public utility regulation and President of the firm of**
6 **Brubaker & Associates, Inc., energy, economic and regulatory consultants.**

7 **Q PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND EXPERI-**
8 **ENCE.**

9 **A I was graduated from the University of Missouri in 1965, with a Bachelor's Degree in**
10 **Electrical Engineering. Subsequent to graduation I was employed by the Utilities**
11 **Section of the Engineering and Technology Division of Esso Research and**
12 **Engineering Corporation of Morristown, New Jersey, a subsidiary of Standard Oil of**
13 **New Jersey.**

14 **In the Fall of 1965, I enrolled in the Graduate School of Business at**
15 **Washington University in St. Louis, Missouri. I was graduated in June of 1967 with**
16 **the Degree of Master of Business Administration. My major field was finance.**

17 **From March of 1966 until March of 1970, I was employed by Emerson Electric**
18 **Company in St. Louis. During this time I pursued the Degree of Master of Science in**
19 **Engineering at Washington University, which I received in June, 1970.**

1 In March of 1970, I joined the firm of Drazen Associates, Inc., of St. Louis,
2 Missouri. Since that time I have been engaged in the preparation of numerous
3 studies relating to electric, gas, telephone and water utilities. These studies have
4 included analyses of the cost to serve various types of customers, the design of rates
5 for utility services, cost forecasts, cogeneration rates and determinations of rate base
6 and operating income. I have also addressed utility resource planning principles and
7 plans, reviewed capacity additions to determine whether or not they were used and
8 useful, addressed demand-side management issues independently and as part of
9 least cost planning, and have reviewed utility determinations of the need for capacity
10 additions and/or purchased power to determine the consistency of such plans with
11 least cost planning principles and the prudence of the actions undertaken.

12 I have testified before the Federal Energy Regulatory Commission (FERC),
13 various courts and legislatures, and the state regulatory commissions of Alabama,
14 Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia,
15 Guam, Hawaii, Illinois, Indiana, Iowa, Kentucky, Louisiana, Michigan, Missouri,
16 Nevada, New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania,
17 Rhode Island, South Carolina, South Dakota, Texas, Utah, Virginia, West Virginia,
18 Wisconsin and Wyoming.

19 The firm of Drazen-Brubaker & Associates, Inc. was incorporated in 1972 and
20 assumed the utility rate and economic consulting activities of Drazen Associates, Inc.,
21 founded in 1937. In April, 1995 the firm of Brubaker & Associates, Inc. was formed.
22 It includes most of the former DBA principals and staff. Our staff includes consultants
23 with backgrounds in accounting, engineering, economics, mathematics, computer
24 science and business.

1 During the past ten years, Brubaker & Associates, Inc. and its predecessor
2 firm has participated in over 700 major utility rate and other cases and statewide
3 generic investigations before utility regulatory commissions in 40 states, involving
4 electric, gas, water, and steam rates and other issues. Cases in which the firm has
5 been involved have included more than 80 of the 100 largest electric utilities and over
6 30 gas distribution companies and pipelines.

7 An increasing portion of the firm's activities is concentrated in the areas of
8 competitive procurement. While the firm has always assisted its clients in negotiating
9 contracts for utility services in the regulated environment, increasingly there are
10 opportunities for certain customers to acquire power on a competitive basis from a
11 supplier other than its traditional electric utility. The firm assists clients in identifying
12 and evaluating purchased power options, conducts RFPs and negotiates with
13 suppliers for the acquisition and delivery of supplies. We have prepared option
14 studies and/or conducted RFPs for competitive acquisition of power supply for
15 industrial and other end-use customers in more than a dozen states, involving total
16 needs in excess of 2,500 megawatts.

17 In addition to our main office in St. Louis, the firm also has branch offices in
18 Kerrville, Texas; Plano, Texas; Denver, Colorado; Asheville, NC; and Chicago,
19 Illinois.

MEB:cs/7651/26298

AMEREN UE

Cost of Service Study Test Year Ended September 1996

Line	Description	Missouri Total (1)	Residential (2)	Small General Service (3)	Large General Service (4)	Small Primary Service (5)	Large Primary Service (6)	Lighting (7)
Rate Base:								
1	Gross Plant in Service	\$ 7,041,298	\$ 3,678,197	\$ 864,464	\$ 1,312,672	\$ 638,146	\$ 416,856	\$ 130,963
2	Reserves for Depreciation	(2,552,178)	(1,343,255)	(313,600)	(472,311)	(225,594)	(147,541)	(49,878)
3	Other Rate Base Items	(665,195)	(359,007)	(87,716)	(119,026)	(53,043)	(33,523)	(12,881)
4	Total Rate Base	\$ 3,823,925	\$ 1,975,934	\$ 463,148	\$ 721,336	\$ 359,510	\$ 235,793	\$ 68,204
Revenue:								
5	Base	\$ 1,678,864	\$ 742,338	\$ 214,090	\$ 363,618	\$ 200,362	\$ 134,979	\$ 23,478
6	Other	17,586	9,412	2,661	3,347	1,016	689	461
7	Total Revenue	\$ 1,696,450	\$ 751,750	\$ 216,751	\$ 366,964	\$ 201,378	\$ 135,668	\$ 23,938
Expenses:								
8	Operating & Maintenance	\$ 796,797	\$ 368,399	\$ 93,477	\$ 157,038	\$ 101,620	\$ 66,542	\$ 9,720
9	Depreciation	209,716	110,921	25,784	38,507	18,321	11,945	4,238
10	Property Taxes	78,287	40,895	9,611	14,595	7,095	4,635	1,456
11	Income Taxes	204,703	105,776	24,793	38,615	19,245	12,622	3,651
12	Payroll Taxes	19,240	9,752	2,339	3,362	2,168	1,296	323
13	Federal Excise Taxes	555	269	68	114	59	40	5
14	Total Expenses	\$ 1,309,297	\$ 636,013	\$ 156,072	\$ 252,229	\$ 148,509	\$ 97,080	\$ 19,393
15	Operating Income	\$ 387,153	\$ 115,737	\$ 60,678	\$ 114,735	\$ 52,869	\$ 38,588	\$ 4,545
16	Rate of Return	10.12%	5.86%	13.10%	15.91%	14.71%	16.37%	6.66%
17	Index	100	58	129	157	145	162	66
Increase/Decrease to Equal Cost of Service:								
18	Amount	\$ 0	\$ 84,317	\$ (13,787)	\$ (41,703)	\$ (16,471)	\$ (14,715)	\$ 2,360
19	Percent of Base Revenue	0.00%	11.36%	-6.44%	-11.47%	-8.22%	-10.90%	10.05%

Production and Transmission allocator is the Average & Excess 4NCP factor.

Source: Page 1, Schedule 7 of the Direct Testimony of Maurice Brubaker in Case No. EO-96-15 before the Missouri Public Service Commission.

AMEREN UE

Cost of Service Study from Case No. EO-96-15 Adjusted for \$16 Million Decrease Test Year Ended September 1996

Line	Description	Missouri Total (1)	Residential (2)	Small General Service (3)	Large General Service (4)	Small Primary Service (5)	Large Primary Service (6)	Lighting (7)
Rate Base:								
1	Gross Plant in Service	\$ 7,041,298	\$ 3,678,197	\$ 864,464	\$ 1,312,672	\$ 638,146	\$ 416,856	\$ 130,963
2	Reserves for Depreciation	(2,552,178)	(1,343,255)	(313,600)	(472,311)	(225,594)	(147,541)	(49,878)
3	Other Rate Base Items	(665,195)	(359,007)	(87,716)	(119,026)	(53,043)	(33,523)	(12,881)
4	Total Rate Base	\$ 3,823,925	\$ 1,975,934	\$ 463,148	\$ 721,336	\$ 359,510	\$ 235,793	\$ 68,204
Revenue:								
5	Base	\$ 1,678,864	\$ 742,338	\$ 214,090	\$ 363,618	\$ 200,362	\$ 134,979	\$ 23,478
6	\$16 Million Decrease	(15,796)	-	(3,704)	(6,291)	(3,466)	(2,335)	-
7	Other	17,586	9,412	2,661	3,347	1,016	689	461
8	Total Revenue	\$ 1,680,654	\$ 751,750	\$ 213,047	\$ 360,674	\$ 197,912	\$ 133,333	\$ 23,938
Expenses:								
9	Operating & Maintenance	\$ 796,797	\$ 368,399	\$ 93,477	\$ 157,038	\$ 101,620	\$ 66,542	\$ 9,720
10	Depreciation	209,716	110,921	25,784	38,507	18,321	11,945	4,238
11	Property Taxes	78,287	40,895	9,611	14,595	7,095	4,635	1,456
12	Income Taxes	204,703	105,776	24,793	38,615	19,245	12,622	3,651
13	Adj for Decrease	(6,045)	(3,124)	(732)	(1,140)	(568)	(373)	(108)
14	Payroll Taxes	19,240	9,752	2,339	3,362	2,168	1,296	323
15	Federal Excise Taxes	555	269	68	114	59	40	5
16	Total Expenses	\$ 1,303,252	\$ 632,889	\$ 155,340	\$ 251,089	\$ 147,940	\$ 96,707	\$ 19,285
19	Adjusted Operating Income	\$ 377,402	\$ 118,860	\$ 57,707	\$ 109,585	\$ 49,972	\$ 36,626	\$ 4,653
20	Rate of Return	9.87%	6.02%	12.46%	15.19%	13.90%	15.53%	6.82%
21	Index	100	61	126	154	141	157	69
Increase/Decrease to Equal Cost of Service:								
22	Amount	\$ 0	\$ 76,155	\$ (11,996)	\$ (38,392)	\$ (14,490)	\$ (13,354)	\$ 2,078
23	Percent of Base Revenue	0.00%	10.26%	-5.70%	-10.74%	-7.36%	-10.07%	8.85%

Production and Transmission allocator is the Average & Excess 4NCP factor.

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)	Lighting & Public Authority (7)
1	Current Revenue	\$ 1,835,982	\$ 806,432	\$ 229,944	\$ 408,658	\$ 202,676	\$ 162,582	\$ 25,690
	Increase/Decrease Needed to Equal Cost of Service:							
2	Percent *		10.26%	-5.70%	-10.74%	-7.36%	-10.07%	8.85%
3	Amount	\$ (3,299)	\$ 82,730	\$ (13,112)	\$ (43,908)	\$ (14,915)	\$ (16,368)	\$ 2,274
4	Revenue at Equal COS	\$ 1,832,683	\$ 889,162	\$ 216,832	\$ 364,751	\$ 187,761	\$ 146,214	\$ 27,964
	Adjusted Revenue at Equal COS	\$ 1,835,982	\$ 890,763	\$ 217,222	\$ 365,407	\$ 188,099	\$ 146,477	\$ 28,014
6	Revenue Change to Equal COS	\$ -	\$ 84,330	\$ (12,721)	\$ (43,251)	\$ (14,577)	\$ (16,105)	\$ 2,324
7	Recommended Allocation of \$250 Million Decrease Revenue after COS	\$ (250,000)	\$ (121,292)	\$ (29,579)	\$ (49,756)	\$ (25,613)	\$ (19,945)	\$ (3,815)
8	Adjustment and \$250 Million Decrease	\$ 1,585,982	\$ 769,470	\$ 187,644	\$ 315,651	\$ 162,486	\$ 126,532	\$ 24,200
	Change from Current Revenue:							
9	Amount	\$ (250,000)	\$ (36,962)	\$ (42,300)	\$ (93,008)	\$ (40,190)	\$ (36,050)	\$ (1,490)
10	Percent	-13.62%	-4.58%	-18.40%	-22.76%	-19.83%	-22.17%	-5.80%
11	Recommended Allocation of \$187.5 Million Decrease	\$ (187,500)	\$ (27,722)	\$ (31,725)	\$ (69,756)	\$ (30,142)	\$ (27,038)	\$ (1,118)
12	Percent	-10.21%	-3.44%	-13.80%	-17.07%	-14.87%	-16.63%	-4.35%
13	Recommended Allocation of \$125 Million Decrease	\$ (125,000)	\$ (18,481)	\$ (21,150)	\$ (46,504)	\$ (20,095)	\$ (18,025)	\$ (745)
14	Percent	-6.81%	-2.29%	-9.20%	-11.38%	-9.91%	-11.09%	-2.90%
15	Recommended Allocation of \$62.5 Million Decrease	\$ (62,500)	\$ (9,241)	\$ (10,575)	\$ (23,252)	\$ (10,047)	\$ (9,013)	\$ (373)
16	Percent	-3.40%	-1.15%	-4.60%	-5.69%	-4.96%	-5.54%	-1.45%

* From Line 23 of Schedule 2

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)	Lighting & Public Authority (7)
1	Current Revenue	\$ 1,835,982	\$ 806,432	\$ 229,944	\$ 408,658	\$ 202,676	\$ 162,582	\$ 25,690
	Increase/Decrease Needed to Move Half-way to Cost of Service:							
2	Percent *		5.13%	-2.85%	-5.37%	-3.68%	-5.03%	4.43%
3	Amount	\$ (1,649)	\$ 41,365	\$ (6,556)	\$ (21,954)	\$ (7,458)	\$ (8,184)	\$ 1,137
4	Revenue at Equal COS	\$ 1,834,332	\$ 847,797	\$ 223,388	\$ 386,704	\$ 195,218	\$ 154,398	\$ 26,827
	Adjusted Revenue at Equal COS	\$ 1,835,982	\$ 848,560	\$ 223,589	\$ 387,052	\$ 195,394	\$ 154,537	\$ 26,851
6	Revenue Change to Equal COS	\$ -	\$ 42,127	\$ (6,355)	\$ (21,606)	\$ (7,282)	\$ (8,045)	\$ 1,161
	Recommended Allocation of \$250 Million Decrease Revenue after COS Adjustment and \$250 Million Decrease	\$ (250,000)	\$ (115,546)	\$ (30,445)	\$ (52,704)	\$ (26,606)	\$ (21,043)	\$ (3,656)
8	Change from Current Revenue:	\$ 1,585,982	\$ 733,014	\$ 193,143	\$ 334,348	\$ 168,788	\$ 133,494	\$ 23,195
9	Amount	\$ (250,000)	\$ (73,418)	\$ (36,800)	\$ (74,310)	\$ (33,888)	\$ (29,088)	\$ (2,495)
10	Percent	-13.62%	-9.10%	-16.00%	-18.18%	-16.72%	-17.89%	-9.71%
	Recommended Allocation of \$187.5 Million Decrease	\$ (187,500)	\$ (55,064)	\$ (27,600)	\$ (55,732)	\$ (25,416)	\$ (21,816)	\$ (1,871)
12	Percent	-10.21%	-6.83%	-12.00%	-13.64%	-12.54%	-13.42%	-7.28%
	Recommended Allocation of \$125 Million Decrease	\$ (125,000)	\$ (36,709)	\$ (18,400)	\$ (37,155)	\$ (16,944)	\$ (14,544)	\$ (1,248)
14	Percent	-6.81%	-4.55%	-8.00%	-9.09%	-8.36%	-8.95%	-4.86%
	Recommended Allocation of \$62.5 Million Decrease	\$ (62,500)	\$ (18,355)	\$ (9,200)	\$ (18,577)	\$ (8,472)	\$ (7,272)	\$ (624)
16	Percent	-3.40%	-2.28%	-4.00%	-4.55%	-4.18%	-4.47%	-2.43%

* 50% of Line 23 of Schedule 2

**Average Cost per kWh of Typical Industrial Bills
for 2001 in Missouri, Arkansas, Illinois, Indiana, Iowa,
Kansas, Kentucky, Oklahoma, Tennessee and Wisconsin
(As Reported to EEI Typical Bill Data Base)**

<u>Line</u>	<u>Utility Company</u>	<u>Industrial</u>
1	UtiliCorp United, Inc., KS	6.27 ¢
2	Commonwealth Edison Company	6.23
3	Northern Indiana Public Service Company	6.05
4	Central Illinois Light Company	5.25
5	Illinois Power Company	5.21
6	TVA/Memphis Light, Gas and Water Division	4.92
7	AmerenUE, MO	4.90
8	Southwestern Public Service Company, KS	4.88
9	Madison Gas & Electric Company	4.87
10	Northwestern Wisconsin Electric Company	4.84
11	Entergy Arkansas, Inc.	4.79
12	KG&E Company	4.77
13	Public Service Company of Oklahoma	4.75
14	AEP (Indiana Michigan Power), IN	4.62
15	Alliant Energy-IES Utilities, Inc. (Northern & Southeastern Zone), IA	4.61
16	Northern States Power Company (Wisconsin)	4.57
17	MidAmerican Energy - East System, IA	4.54
18	Central Illinois Public Service Company	4.52
19	Wisconsin Electric Power Company	4.48
20	Kansas City Power & Light Company, KS	4.47
21	Union Light, Heat and Power	4.44
22	MidAmerican Energy-South System, IA	4.35
23	OG&E Electric Services	4.32
24	Southern Indiana Gas & Electric Company	4.22
25	Kansas City Power & Light Company, MO	4.19
26	Indianapolis Power & Light Company	4.15
27	Southwestern Public Service Company, OK	4.13
28	KPL Company (Western Resources Inc.)	4.09
29	Empire District Electric Company, OK	4.08
30	Alliant Energy-WP&L	4.08
31	Southwestern Electric Power Company, AR	4.07
32	Empire District Electric Company, MO	3.91
33	UtiliCorp United, Inc., MO	3.91
34	Empire District Electric Company, AR	3.90
35	Superior Water, Light & Power Company	3.85
36	OG&E Electric Services, AR	3.82
37	Alliant Energy-Interstate Power Company, IA	3.82
38	UtiliCorp United, Inc./St. Joseph Light & Power Co., MO	3.81
39	MidAmerican Energy-North System, IA	3.80
40	Alliant Energy-Interstate Power Company, IL	3.79
41	AmerenUE, IL	3.72
42	MidAmerican Energy, IL	3.67
43	Black River Coop	3.66
44	Empire District Electric Company, KS	3.54
45	Wisconsin Public Service Corporation	3.54
46	PSI Energy, Inc.	3.47
47	Alliant Energy-IES Utilities, Inc. (Southern Zone), IA	3.41
48	Louisville Gas & Electric Company	3.37
49	AEP (Kingsport Power Rate Area)	3.18
50	Kentucky Utilities Company	2.81
51	AEP (Kentucky Power Rate Area)	2.78
52	Average for Region	4.26 ¢

**Average Cost per kWh of Typical Residential Bills
for 2001 in Missouri, Arkansas, Illinois, Indiana, Iowa,
Kansas, Kentucky, Oklahoma, Tennessee and Wisconsin
(As Reported to EEI Typical Bill Data Base)**

<u>Line</u>	<u>Utility Company</u>	<u>Residential</u>
1	Northern Indiana Public Service Company	10.24 ¢
2	Alliant Energy-IES Utilities, Inc. (Northern & Southeastern Zone), IA	10.14
3	MidAmerican Energy-South System, IA	9.57
4	MidAmerican Energy - East System, IA	9.54
5	Commonwealth Edison Company	9.36
6	Entergy Arkansas, Inc.	9.35
7	Illinois Power Company	8.97
8	Madison Gas & Electric Company	8.97
9	KG&E Company	8.86
10	UtiliCorp United, Inc., KS	8.48
11	OG&E Electric Services	8.45
12	MidAmerican Energy, IL	8.44
13	Wisconsin Electric Power Company	8.26
14	Alliant Energy-Interstate Power Company, IA	8.24
15	MidAmerican Energy-North System, IA	8.21
16	Central Illinois Light Company	8.14
17	Central Illinois Public Service Company	8.09
18	AmerenUE, MO	7.90
19	Kansas City Power & Light Company, KS	7.80
20	Northern States Power Company (Wisconsin)	7.63
21	Southern Indiana Gas & Electric Company	7.58
22	UtiliCorp United, Inc., MO	7.57
23	Southwestern Public Service Company, KS	7.52
24	Kansas City Power & Light Company, MO	7.37
25	AmerenUE, IL	7.33
26	Northwestern Wisconsin Electric Company	7.33
27	Wisconsin Public Service Corporation	7.33
28	Alliant Energy-WP&L	7.31
29	Southwestern Public Service Company, OK	7.31
30	Southwestern Electric Power Company, AR	7.29
31	Public Service Company of Oklahoma	7.28
32	Empire District Electric Company, AR	7.14
33	AEP (Indiana Michigan Power), IN	7.14
34	OG&E Electric Services, AR	7.12
35	Black River Coop	7.04
36	PSI Energy, Inc.	7.03
37	Empire District Electric Company, MO	7.02
38	Indianapolis Power & Light Company	7.00
39	Empire District Electric Company, OK	6.92
40	Alliant Energy-Interstate Power Company, IL	6.89
41	Union Light, Heat and Power	6.77
42	UtiliCorp United, Inc./St. Joseph Light & Power Co., MO	6.53
43	TVA/Memphis Light, Gas and Water Division	6.50
44	Superior Water, Light & Power Company	6.48
45	Alliant Energy-IES Utilities, Inc. (Southern Zone), IA	6.46
46	KPL Company (Western Resources Inc.)	6.27
47	Empire District Electric Company, KS	6.21
48	Louisville Gas & Electric Company	5.48
49	AEP (Kentucky Power Rate Area)	5.07
50	AEP (Kingsport Power Rate Area)	4.94
51	Kentucky Utilities Company	4.32
52	Average for Region	7.53 ¢

**Average Cost per kWh of Commercial Typical Bills
for 2001 in Missouri, Arkansas, Illinois, Indiana, Iowa,
Kansas, Kentucky, Oklahoma, Tennessee and Wisconsin
(As Reported to EEI Typical Bill Data Base)**

<u>Line</u>	<u>Utility Company</u>	<u>Commercial</u>
1	Northern Indiana Public Service Company	9.95 ¢
2	Commonwealth Edison Company	8.58
3	Illinois Power Company	8.24
4	UtiliCorp United, Inc., KS	8.05
5	Alliant Energy-IES Utilities, Inc. (Northern & Southeastern Zone), IA	7.27
6	KG&E Company	7.25
7	Central Illinois Light Company	7.08
8	Kansas City Power & Light Company, KS	7.07
9	MidAmerican Energy - East System, IA	7.03
10	Wisconsin Electric Power Company	6.92
11	Central Illinois Public Service Company	6.82
12	AmerenUE, MO	6.77
13	OG&E Electric Services	6.76
14	Madison Gas & Electric Company	6.74
15	MidAmerican Energy-South System, IA	6.73
16	Southwestern Public Service Company, OK	6.73
17	TVA/Memphis Light, Gas and Water Division	6.66
18	Indianapolis Power & Light Company	6.46
19	Southwestern Public Service Company, KS	6.45
20	Kansas City Power & Light Company, MO	6.44
21	Union Light, Heat and Power	6.44
22	Entergy Arkansas, Inc.	6.36
23	AEP (Indiana Michigan Power), IN	6.28
24	MidAmerican Energy, IL	6.24
25	Northwestern Wisconsin Electric Company	6.24
26	Public Service Company of Oklahoma	6.08
27	Northern States Power Company (Wisconsin)	6.01
28	Empire District Electric Company, AR	5.94
29	Empire District Electric Company, OK	5.91
30	Empire District Electric Company, KS	5.84
31	Alliant Energy-Interstate Power Company, IL	5.68
32	AmerenUE, IL	5.64
33	Alliant Energy-WP&L	5.62
34	Southern Indiana Gas & Electric Company	5.61
35	Black River Coop	5.59
36	MidAmerican Energy-North System, IA	5.39
37	Southwestern Electric Power Company, AR	5.36
38	Empire District Electric Company, MO	5.27
39	OG&E Electric Services, AR	5.26
40	Alliant Energy-Interstate Power Company, IA	5.25
41	UtiliCorp United, Inc., MO	5.17
42	Louisville Gas & Electric Company	5.13
43	PST Energy, Inc.	5.11
44	KPL Company (Western Resources Inc.)	4.96
45	Superior Water, Light & Power Company	4.92
46	AEP (Kentucky Power Rate Area)	4.90
47	AEP (Kingsport Power Rate Area)	4.89
48	Alliant Energy-IES Utilities, Inc. (Southern Zone), IA	4.88
49	Wisconsin Public Service Corporation	4.83
50	UtiliCorp United, Inc./St. Joseph Light & Power Co., MO	4.63
51	Kentucky Utilities Company	3.79
52	Average for Region	6.14 ¢

**Average Cost per kWh of Typical Bills
for 2001 in Missouri, Arkansas, Illinois, Indiana, Iowa,
Kansas, Kentucky, Oklahoma, Tennessee and Wisconsin
(As Reported to EEI Typical Bill Data Base)**

Description of Usage and Loads for Typical Bills

EEI data is reported for a winter month (January) and a summer month (July).

The residential usage is based on 750 kWh for the winter month and 1,000 kWh for the summer month.

The commercial usage is based on 100 kW with 30,000 kWh (41% load factor) for both time periods.

The industrial usage is based on 10,000 kW with 5,000,000 kWh (68% load factor) for both time periods.

Footnote to Schedule 5, pages 1 through 3

EEI data reflects information reported by the utilities. Applicable add-on taxes are often included.

Ameren UE has traditionally included add-on taxes in its reported data. In 2001, Ameren UE included add-on taxes in the January calculation but not in the July calculation. For consistency, we have included add-on taxes for the July calculation.

**Average Cost per kWh of Typical Industrial Bills
for 2001 in Missouri, Arkansas, Illinois, Indiana, Iowa,
Kansas, Kentucky, Oklahoma, Tennessee and Wisconsin
(EEI Typical Bill Data Base with Add-on Taxes Removed)**

<u>Line</u>	<u>Utility Company</u>	<u>Industrial</u>
1	UtiliCorp United, Inc., KS	6.27 ¢
2	Commonwealth Edison Company	6.13
3	Northern Indiana Public Service Company	5.76
4	Central Illinois Light Company	4.98
5	Illinois Power Company	4.95
6	TVA/Memphis Light, Gas and Water Division	4.92
7	Southwestern Public Service Company, KS	4.88
8	Madison Gas & Electric Company	4.87
9	Northwestern Wisconsin Electric Company	4.84
10	Entergy Arkansas, Inc.	4.79
11	KG&E Company	4.77
12	Public Service Company of Oklahoma	4.74
13	AEP (Indiana Michigan Power), IN	4.62
14	Alliant Energy-IES Utilities, Inc. (Northern & Southeastern Zone), IA	4.61
15	Northern States Power Company (Wisconsin)	4.57
16	MidAmerican Energy - East System, IA	4.54
17	Central Illinois Public Service Company	4.49
18	Wisconsin Electric Power Company	4.48
19	Kansas City Power & Light Company, KS	4.47
20	Union Light, Heat and Power	4.44
21	AmerenUE, MO	4.41
22	MidAmerican Energy-South System, IA	4.35
23	OG&E Electric Services	4.28
24	Southern Indiana Gas & Electric Company	4.22
25	Kansas City Power & Light Company, MO	4.19
26	Indianapolis Power & Light Company	4.15
27	KPL Company (Western Resources Inc.)	4.09
28	Empire District Electric Company, OK	4.08
29	Alliant Energy-WP&L	4.08
30	Southwestern Public Service Company, OK	4.03
31	Southwestern Electric Power Company, AR	4.03
32	Empire District Electric Company, MO	3.91
33	UtiliCorp United, Inc., MO	3.91
34	Empire District Electric Company, AR	3.90
35	Superior Water, Light & Power Company	3.85
36	Alliant Energy-Interstate Power Company, IA	3.82
37	UtiliCorp United, Inc./St. Joseph Light & Power Co., MO	3.81
38	MidAmerican Energy-North System, IA	3.80
39	Alliant Energy-Interstate Power Company, IL	3.79
40	AmerenUE, IL	3.68
41	OG&E Electric Services, AR	3.68
42	MidAmerican Energy, IL	3.67
43	Black River Coop	3.66
44	Empire District Electric Company, KS	3.54
45	Wisconsin Public Service Corporation	3.54
46	PSI Energy, Inc.	3.47
47	Alliant Energy-IES Utilities, Inc. (Southern Zone), IA	3.41
48	Louisville Gas & Electric Company	3.37
49	AEP (Kingsport Power Rate Area)	3.18
50	Kentucky Utilities Company	2.81
51	AEP (Kentucky Power Rate Area)	2.78
52	Average for Region	4.23 ¢

**Average Cost per kWh of Typical Residential Bills
for 2001 in Missouri, Arkansas, Illinois, Indiana, Iowa,
Kansas, Kentucky, Oklahoma, Tennessee and Wisconsin
(EEI Typical Bill Data Base with Add-on Taxes Removed)**

<u>Line</u>	<u>Utility Company</u>	<u>Residential</u>
1	Alliant Energy-IES Utilities, Inc. (Northern & Southeastern Zone), IA	10.14 ¢
2	Northern Indiana Public Service Company	9.75
3	MidAmerican Energy-South System, IA	9.57
4	MidAmerican Energy - East System, IA	9.54
5	Entergy Arkansas, Inc.	9.35
6	Commonwealth Edison Company	9.21
7	Madison Gas & Electric Company	8.97
8	KG&E Company	8.86
9	Illinois Power Company	8.64
10	UtiliCorp United, Inc., KS	8.48
11	MidAmerican Energy, IL	8.43
12	OG&E Electric Services	8.27
13	Wisconsin Electric Power Company	8.26
14	Alliant Energy-Interstate Power Company, IA	8.24
15	MidAmerican Energy-North System, IA	8.21
16	Central Illinois Public Service Company	8.13
17	Central Illinois Light Company	7.81
18	Kansas City Power & Light Company, KS	7.80
19	Northern States Power Company (Wisconsin)	7.63
20	Southern Indiana Gas & Electric Company	7.61
21	AmerenUE, MO	7.58
22	UtiliCorp United, Inc., MO	7.57
23	Southwestern Public Service Company, KS	7.52
24	Kansas City Power & Light Company, MO	7.37
25	Northwestern Wisconsin Electric Company	7.33
26	Wisconsin Public Service Corporation	7.33
27	Alliant Energy-WP&L	7.31
28	Public Service Company of Oklahoma	7.17
29	Southwestern Public Service Company, OK	7.17
30	AmerenUE, IL	7.15
31	Empire District Electric Company, AR	7.14
32	AEP (Indiana Michigan Power), IN	7.14
33	Southwestern Electric Power Company, AR	7.08
34	Black River Coop	7.04
35	PSI Energy, Inc.	7.03
36	Empire District Electric Company, MO	7.02
37	Indianapolis Power & Light Company	7.00
38	Empire District Electric Company, OK	6.92
39	OG&E Electric Services, AR	6.91
40	Alliant Energy-Interstate Power Company, IL	6.89
41	Union Light, Heat and Power	6.77
42	UtiliCorp United, Inc./St. Joseph Light & Power Co., MO	6.53
43	TVA/Memphis Light, Gas and Water Division	6.50
44	Superior Water, Light & Power Company	6.48
45	Alliant Energy-IES Utilities, Inc. (Southern Zone), IA	6.46
46	KPL Company (Western Resources Inc.)	6.27
47	Empire District Electric Company, KS	6.21
48	Louisville Gas & Electric Company	5.48
49	AEP (Kentucky Power Rate Area)	5.07
50	AEP (Kingsport Power Rate Area)	4.94
51	Kentucky Utilities Company	4.32
52	Average for Region	7.48 ¢

**Average Cost per kWh of Typical Commercial Bills
for 2001 in Missouri, Arkansas, Illinois, Indiana, Iowa,
Kansas, Kentucky, Oklahoma, Tennessee and Wisconsin
(EEI Typical Bill Data Base with Add-on Taxes Removed)**

<u>Line</u>	<u>Utility Company</u>	<u>Commercial</u>
1	Northern Indiana Public Service Company	9.48 ¢
2	Commonwealth Edison Company	8.44
3	UtiliCorp United, Inc., KS	8.05
4	Illinois Power Company	7.92
5	Alliant Energy-IES Utilities, Inc. (Northern & Southeastern Zone), IA	7.27
6	KG&E Company	7.25
7	Kansas City Power & Light Company, KS	7.07
8	MidAmerican Energy - East System, IA	7.03
9	Wisconsin Electric Power Company	6.92
10	Central Illinois Light Company	6.76
11	Madison Gas & Electric Company	6.74
12	MidAmerican Energy-South System, IA	6.73
13	Southwestern Public Service Company, OK	6.69
14	TVA/Memphis Light, Gas and Water Division	6.66
15	OG&E Electric Services	6.56
16	Indianapolis Power & Light Company	6.46
17	Southwestern Public Service Company, KS	6.45
18	Kansas City Power & Light Company, MO	6.44
19	Union Light, Heat and Power	6.44
20	Central Illinois Public Service Company	6.39
21	Entergy Arkansas, Inc.	6.36
22	AEP (Indiana Michigan Power), IN	6.28
23	Northwestern Wisconsin Electric Company	6.24
24	MidAmerican Energy, IL	6.20
25	AmerenUE, MO	6.10
26	Northern States Power Company (Wisconsin)	6.01
27	Empire District Electric Company, AR	5.94
28	Empire District Electric Company, OK	5.91
29	Public Service Company of Oklahoma	5.88
30	Empire District Electric Company, KS	5.84
31	Alliant Energy-Interstate Power Company, IL	5.68
32	Alliant Energy-WP&L	5.62
33	Black River Coop	5.59
34	Southern Indiana Gas & Electric Company	5.49
35	MidAmerican Energy-North System, IA	5.39
36	AmerenUE, IL	5.29
37	Empire District Electric Company, MO	5.27
38	Alliant Energy-Interstate Power Company, IA	5.25
39	Southwestern Electric Power Company, AR	5.20
40	UtiliCorp United, Inc., MO	5.17
41	Louisville Gas & Electric Company	5.13
42	PSI Energy, Inc.	5.11
43	OG&E Electric Services, AR	5.06
44	KPL Company (Western Resources Inc.)	4.96
45	Superior Water, Light & Power Company	4.92
46	AEP (Kentucky Power Rate Area)	4.90
47	AEP (Kingsport Power Rate Area)	4.88
48	Alliant Energy-IES Utilities, Inc. (Southern Zone), IA	4.88
49	Wisconsin Public Service Corporation	4.83
50	UtiliCorp United, Inc./St. Joseph Light & Power Co., MO	4.63
51	Kentucky Utilities Company	3.79
52	Average for Region	6.07 ¢