

Exhibit No.:
Issues: Cost of Service
Rate Design
Sponsoring Party: MoPSC Staff
Type of Exhibit: Direct Testimony
Case No.: GR-2000-512

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

DIRECT TESTIMONY

OF

THOMAS M. IMHOFF

**UNION ELECTRIC COMPANY
d/b/a AmerenUE**

CASE NO. GR-2000-512

Jefferson City, Missouri
August 2000

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Missouri Public
Service Commission

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THOMAS M. IMHOFF

UNION ELECTRIC COMPANY

d/b/a AMERENUE

CASE NO. GR-2000-512

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CLASS COST OF SERVICE

2

RATE DESIGN

7

1 January 5, 1998, I assumed my current position of Regulatory Auditor IV in the Gas
2 Tariffs/Rate Design Department, where my duties consist of analyzing applications,
3 reviewing tariffs and making recommendations based upon those evaluations.

4 Q. Have you previously filed testimony before this Commission?

5 A. Yes. A list of cases in which I have filed testimony before this
6 Commission is attached as Schedule I to my direct testimony.

7 Q. With reference to Case No. GR-2000-512, have you made an examination
8 and study of the material filed by Union Electric Company d/b/a AmerenUE (Ameren or
9 Company) relating to its proposed increase in gas rates?

10 A. Yes, I have.

11 Q. What is the purpose of your direct testimony?

12 A. The purpose of my direct testimony is to present the Commission Staff's
13 (Staff) position relating to class cost-of-service (COS) for Ameren, and Staff's position
14 on rate design.

15 CLASS COST OF SERVICE

16 Q. What customer classes are used in Staff's COS study?

17 A. The customer classes used in this study are as follows:

18 Residential
19 General Service
20 Interruptible Service
21 Transportation Service

22 Q. Are these the same as the Company's current tariff designations?
23

24 A. Yes they are.

25 Q. What is the purpose of Staff's class COS?

1 A. The purpose of Staff's class COS is to provide the Commission with a
2 measure of relative class cost responsibility for the overall revenue requirement of
3 Ameren. For individual items of cost, class cost responsibility can be either directly
4 assigned or allocated to customer classes using reasonable methods for determining the
5 class responsibility for that item of cost. The results are then summarized so that they
6 can be compared to revenues being collected from each class on current rates.

7 Q. How were the usage levels and class peak demand levels used in your
8 class COS study developed?

9 A. The annualized usage levels and customer bill counts for the Residential
10 and General Service sales classes were provided by Staff Accounting witness John
11 Cassidy and will be addressed in his direct testimony. The annual usage levels and
12 customer bill counts for Interruptible and Transportation customers were developed by
13 Staff witness Daniel I. Beck of the Gas Tariffs/Rate Design department and will be
14 addressed in his testimony. Staff witness Beck will also address the class peak demand
15 levels in his direct testimony.

16 Q. What is the source of accounting information used in your class COS
17 study?

18 A. The study was developed using costs produced by the Commission
19 Accounting Department, which is based on a test year ending June 30, 1999, updated for
20 known and measurable changes through April 30, 2000.

21 Q. Please describe how you categorized the individual items of cost in the
22 Staff's class COS study.

1 A. Categorization of costs into functional areas that are to be allocated in the
2 same way is called cost functionalization. The rate base and expense accounts are
3 assigned to one of the following functional categories:

4 Transmission
5 Storage
6 Liquefied Natural Gas
7 Purchased Gas
8 Distribution Mains
9 Distribution Measuring and Regulating
10 Distribution Meters
11 Distribution Regulators
12 Distribution Services
13 Customer Service
14 Billing
15 Meter Reading
16 Revenue Related
17

18 Those costs, which cannot directly be assigned to any specific functional
19 category, are divided among several functions based upon some relational factor. For
20 example, it is reasonable to assume that property taxes are related to gross plant costs and
21 can therefore be funtionalized in the same manner as gross plant costs.

22 Q. How were Transmission costs allocated?

23 A. Transmission costs were allocated using the Capacity Utilization allocator
24 developed by Staff witness Daniel Beck.

25 Q. How were Storage costs allocated?

26 A. Storage is primarily used in winter months; therefore, storage costs were
27 allocated to all sales customers (excluding transportation customers) using sales volumes
28 from the months of November through March.

29 Q. How were the costs associated with the Liquefied Natural Gas plant
30 allocated?

1 A. This type of plant is used primarily on peak days, so these costs were
2 allocated to firm customers (excluding interruptible and transportation customers) using
3 their contribution to peak day demand.

4 Q. How were Purchased Gas costs allocated?

5 A. Even though purchased gas costs are not part of this rate proceeding, there
6 is a certain level of purchased gas costs included as a component of cash working capital.
7 These costs were allocated between the COS classes using gas sales volumes.

8 Q. How were the costs of Distribution Mains allocated?

9 A. The allocation factor for Distribution Mains was developed by Staff
10 witness Daniel Beck and will be addressed in his direct testimony.

11 Q. How were the costs of Distribution Meters and Distribution Regulators
12 allocated?

13 A. The allocation factors for Distribution Meters and Distribution Regulators
14 were developed by Staff witness Daniel Beck.

15 Q. How were the costs of Distribution Service Lines allocated?

16 A. These costs were allocated using the factor developed by Staff witness
17 Daniel Beck.

18 Q. How were costs associated with Distribution Measuring and Regulating
19 allocated?

20 A. This type of cost is associated with equipment used to measure and
21 regulate natural gas before it reaches individual customers' service lines, so these costs
22 were allocated using annualized Ccf volumes.

23 Q. How were Customer Service costs allocated?

1 A. These costs are associated with the number of customers being served;
2 therefore, they were allocated using the number of annual bills for each customer class.

3 Q. How were the costs of the Customer Billing function allocated?

4 A. These costs were allocated by the number of annual bills for each
5 customer class.

6 Q. How were Meter Reading costs allocated?

7 A. These costs were allocated by using the weighted customer numbers. The
8 weighted numbers used reflect the average length of a distribution service line for each
9 customer class.

10 Q. How were the Revenue Related costs allocated?

11 A. These costs were allocated using Staff's annualized margin revenues.

12 Q. What are the results of your class COS study?

13 A. The results are shown on Schedule 2, and are presented in terms of class
14 revenue requirements before any increase in the Ameren's revenue requirement.

15 Q. How have you compared the class COS study results to current revenues?

16 A. Revenue requirement is a major component in this case and the
17 Commission must have a recommendation about class revenue requirements that it can
18 apply to any increase in revenue requirement that is ultimately decided. In order to make
19 such a recommendation, I have factored the Staff's class COS to be equal to the revenue
20 level collected from current rates. The same factor was applied to the allocated costs for
21 each class (i.e., each class' costs were decreased by an equal percentage). When
22 subtracting the results from current revenues, a revenue deficiency (-) or revenue surplus
23 (+) for each class is reflected.

1 Q. What is the impact of your class COS study on the various customer
2 classes?

3 A. The class COS study shows that revenues should be collected differently
4 than is occurring under current rates.

5 **RATE DESIGN**

6 Q. Did you compute customer charge levels based on your COS study?

7 A. Yes. The customer charge levels indicated by the COS study are shown in
8 Schedule 3.

9 Q. How were the customer charges determined in your class COS study?

10 A. My class COS study identified a customer charge based on the direct costs
11 associated with distribution service lines, distribution meters and regulators, billing,
12 meter reading and customer service expenses.

13 Q. What customer charge are you proposing for the Residential class?

14 A. I am proposing a customer charge of \$8.50 for the Residential class. This
15 is an increase of fifty cents from the current Residential customer charge of \$8.00.

16 Q. What are you proposing as a customer charge for the General Service
17 class?

18 A. I am proposing a customer charge of \$20.80 for the General Service class.

19 Q. What customer charge are you proposing for the Interruptible class?

20 A. I am proposing no change to the Interruptible class customer charge of
21 \$100.

22 Q. What are you proposing as a customer charge for the Transportation class?

1 A. This class is made up of two rate classes: the Standard Transportation rate
2 and the Large Volume Transportation rate. Staff is supporting the Company's request for
3 an increase in the electronic gas meter (EGM) billing charge from \$25 to \$40. Since both
4 the customer charge and the EGM billing charge are monthly charges, the total monthly
5 charges which are currently \$44.75 ($\$19.75 + \25.00) will increase to \$59.75 ($\$19.75 +$
6 $\$40.00$) for a 33% increase before any increase in the customer charge is included. For
7 this reason, Staff recommends that the Standard Transportation customer charge only
8 should increase from \$19.75 to \$20.00. Staff proposes no increase in the customer
9 charge for the Large Volume Transportation rate.

10 Q. How were the margin commodity rates from your class COS study
11 calculated?

12 A. To determine the margin commodity rates from the class COS study, I
13 subtracted the dollars collected from the customer charges from each class' revenue
14 requirement. I then subtracted the revenue requirement associated with Storage and
15 Liquefied Natural Gas facilities, and divided the remaining class revenue requirement by
16 the total class Ccf volumes. This resulted in a base rate that is applicable to the
17 Transportation customers. I calculated an adder to this rate by dividing the Storage and
18 Liquefied Natural Gas costs by the sales Ccf volumes to arrive at a margin commodity
19 rate to be collected from Sales customers.

20 Q. Are these the final rates that will collect the revenue requirements that the
21 Commission will allow in this case?

22 A. No. The revenues used to design these rates do not include any of the rate
23 increase being requested by the Company.

1 Q. What is your recommendation regarding revenue shifts between classes at
2 Staff's current revenue requirement increase?

3 A. At Staff's current revenue requirement increase, Staff recommends no
4 changes in the commodity rates in the transportation rates and an equal percentage
5 increase in class revenues for the remaining classes. The results of the COS for each
6 class results in a major impact on Residential and General Service customers, therefore,
7 the Staff's proposal will lessen the impact on these specific customer classes.

8 Q. Since you did not recommend movement to COS for each class, what
9 factors did you take into account?

10 A. Staff took into account the level of the revenue requirement increase, the
11 significant increase in the General Service Customer Charge, the increase in the EGM
12 billing charge, and the significant increase in the cost of gas (those collected through the
13 Purchased Gas Adjustment/ Actual Cost Adjustment (PGA/ACA) process). Since the
14 level of the revenue requirement increase has not been determined by the Commission,
15 and the level of the winter PGA/ACA rates have not been established, Staff recommends
16 that the Commission take these factors into account when determining the final revenue
17 shifts between classes.

18 Q. Does this conclude your direct testimony?

19 A. Yes it does.

UNION ELECTRIC COMPANY D/B/A AMEREN UE
CASE NO. GR-2000-512

Summary of Cases in which prepared testimony was presented by:
THOMAS M. IMHOFF

<u>Company Name</u>	<u>Case No.</u>
Terre-Du-Lac Utilities	SR-82-69
Terre-Du-Lac Utilities	WR-82-70
Bowling Green Gas Company	GR-82-104
Atlas Mobilfone Inc.	TR-82-123
Missouri Edison Company	GR-82-197
Missouri Edison Company	ER-82-198
Great River Gas Company	GR-82-235
Citizens Electric Company	ER-83-61
General Telephone Company of the Midwest	TR-83-164
Missouri Telephone Company	TR-83-334
Mobilpage Inc.	TR-83-350
Union Electric Company	ER-84-168
Missouri-American Water Company	WR-85-16
Great River Gas Company	GR-85-136
Grand River Mutual Telephone Company	TR-85-242
ALLTEL Missouri, Inc.	TR-86-14
Continental Telephone Company	TR-86-55
General Telephone Company of the Midwest	TC-87-57
St. Joseph Light & Power Company	GR-88-115
St. Joseph Light & Power Company	HR-88-116
Camelot Utilities, Inc.	WA-89-1
GTE North Incorporated	TR-89-182
The Empire District Electric Company	ER-90-138
Capital Utilities, Inc.	SA-90-224
St. Joseph Light & Power Company	EA-90-252
Kansas City Power & Light Company	EA-90-252
Sho-Me Power Corporation	ER-91-298
St. Joseph Light & Power Company	EC-92-214
St. Joseph Light & Power Company	ER-93-41
St. Joseph Light & Power Company	GR-93-42
Citizens Telephone Company	TR-93-268
The Empire District Electric Company	ER-94-174
Missouri-American Water Company	WR-95-205
Missouri-American Water Company	SR-95-206
Union Electric Company	EM-96-149
The Empire District Electric Company	ER-97-81
Missouri Gas Energy	GR-98-140
Laclede Gas Company	GR-98-374
Laclede Gas Company	GR-99-315
Atmos Energy Corporation	GM-2000-312

UNION ELECTRIC COMPANY
CASE NO. GR-2000-512
TEST YEAR ENDED JUNE 30, 1999
C-O-S RESULTS

	TOTAL	RESIDENTIAL	GENERAL SERVICE	INTERRUPTIBLE	TRANSPORTATION
RATE BASE	135965850	81231567	36395925	3146131	15192227
REQUESTED RETURN	8.84%	8.84%	8.84%	8.84%	8.84%
RETURN ON RATE BASE	12019381	7180871	3217400	278118	1342993
O & M EXPENSES	15582095	10841569	3430622	332926	976978
DEPRECIATION EXPENSE	4558034	2842511	1192157	94753	428613
TAXES OTHER THAN INCOME	4081167	2603310	1025034	87195	365628
INCOME TAXES	4660763	2784531	1247613	107846	520773
	=====				
TOTAL EXPENSES	28882059	19071920	6895426	622721	2291992
TOTAL C-O-S	40901440	26252791	10112826	900839	3634985
OTHER REVENUES	468050	313517	95373	19186	39973
REQUIRED MARGIN REVENUE	40433390	25939273	10017453	881653	3595011
CURRENT MARGIN REVENUES	38313709	22992389	10529909	\$762,663	\$4,028,748
ZERO REVENUE INCREASE PLUG	-2119681	-1359841	-525155	-46220	-188465
C-O-S MARGIN REVENUES @ 0%	38313709	24579432	9492298	835433	3406546
CLASS SHARE OF CURRENT MARGIN REVENUES	100.00%	60.01%	27.48%	1.99%	10.52%
CLASS SHARE OF COST-OF-SERVICE MARGIN REVENUES	100.00%	64.15%	24.78%	2.18%	8.89%

**UNION ELECTRIC COMPANY
CASE NO. GR-2000-512
CUSTOMER CHARGE TABLE**

	0	0	0	0	0
	TOTAL	RESIDENTIAL	GENERAL SERVICE	INTERRUPTIBLE	TRANSPORTATION
TOTAL REVENUES TO COLLECT FROM CLASS	38313709	24579432	9492298	835433	3406546
AMOUNT TO BE COLLECTED IN CUSTOMER CHARGE:					
DIRECT SERVICE LINE COSTS	6411439	4797680	1565032	8976	39751
DIRECT METER COSTS	2222802	1544047	631387	7691	39677
DIRECT REGULATOR COSTS	1284339	892153	364817	4444	22925
DIRECT BILLING COSTS	1509889	1343106	165360	263	1161
DIRECT METER READING COSTS	1341791	1099825	238409	656	2900
DIRECT CUSTOMER SERVICE COSTS	195774	174149	21441	34	151
DOLLARS TO COLLECT IN CUSTOMER CHARGE	12966034	9850960	2986445	22063	106566
REMAINING DOLLARS TO COLLECT IN CUSTOMER CHARGE	12966034	9850960	2986445	22063	106566
NO. OF BILLS	1,310,472	1,165,716	143,520	228	1,008
CUSTOMER CHARGE FROM COS		\$8.45	\$20.81	\$96.77	\$105.72
CUSTOMER CHARGE (ROUNDED)		\$8.50	\$20.80	\$96.80	\$105.70
AMOUNT COLLECTED IN C-O-S CUSTOMER CHARGE:	13022418	9908586	2985216	22070	106546
TOTAL AMOUNT TO COLLECT IN COMMODITY CHARGE	25291291	14670846	6507082	813363	3300001