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Issues: Class Cost of Service Study Witness: William M. Warwick Sponsoring Party: Union Electric Company Type of Exhibit: Direct Testimony Case No.: ER-2007-0002 Date Testimony Prepared: July 3, 2006

### MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2007-0002

### DIRECT TESTIMONY

OF

### WILLIAM M. WARWICK

ON

### **BEHALF OF**

## UNION ELECTRIC COMPANY d/b/a AmerenUE

St. Louis, Missouri July 2006

Ameren UE Exhibit No. 15 Case No(s). ER-7007-0002 Date 2007 Rptr DE

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١		DIRECT TESTIMONY
2		OF
3		WILLIAM M. WARWICK
4		CASE NO. ER-2007-0002
5		I. <u>INTRODUCTION</u>
6	Q.	Please state your name and business address.
7	Α.	William M. Warwick, Ameren Services Company ("Ameren Services"), One
8	Ameren Plaz	a, 1901 Chouteau Avenue, St. Louis, Missouri.
9	Q.	What is Ameren Services Company?
10	Α.	Ameren Services Company provides various corporate, administrative and
11	technical sup	port services for Ameren Corporation ("Ameren") and its affiliates, including
12	Union Electr	ic Company d/b/a AmerenUE (referred to herein as "Company" or
13	"AmerenUE	").
14	Q.	What is your position with Ameren Services?
15	Α.	I am Managing Supervisor of Rate Engineering.
16	Q.	Please describe your educational background and employment
17	experience.	
18	Λ.	I received a Bachelor of Science degree in Engineering Management from the
19	University o	f Missouri-Rolla in December 1978.
20		I was employed at ACF Industries' Amcar Division-St. Louis Plant from
21	December, 1	978 to December, 1981, as an engineer in the Industrial Engineering
22	Department,	responsible for project planning. I began working at Union Electric Company
23	in the Rate H	Engineering Department in December, 1981.

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1	My duties and responsibilities include assignments related to the Company's											
2	gas and electric rates, including participation in regulatory proceedings, rate analysis, the											
3	development and interpretation of the Company's gas and electric tariffs, including rules and											
4	regulations, and other rate or regulatory projects as assigned.											
5	II. <u>PURPOSE AND SUMMARY OF TESTIMONY</u>											
6	Q. What is the purpose of your direct testimony in this proceeding?											
7	A. I am responsible for:											
8	(1) Developing a fully allocated embedded customer class cost of service											
9	study for the Company's Missouri jurisdictional electric operations for											
10	the test year period of the twelve months ending June 30, 2006; and											
11	(2) Disaggregating, or unbundling, the various functional cost components											
12	included in the Company's allocated class cost of service study.											
13	An Executive Summary of my testimony is included in Attachment A of											
14	Company witness Wilbon L. Cooper's direct testimony.											
15	III. <u>CLASS COST OF SERVICE STUDY</u>											
16	Q. Please explain the information contained in Schedule WMW-E1 attached											
17	to your testimony.											
18	A. Schedule WMW-E1 contains the results of my customer class cost of service											
19	study for the Company's Missouri jurisdictional operations for the test year ending June 30,											
20	2006. This study is based upon the Company's present rate levels and uses weather											
21	normalized sales during the test year. A Missouri jurisdictional cost of service study											
22	prepared by Company witness Gary S. Weiss and discussed in his direct testimony provided											

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the total rate base and expense items that formed the starting point for this class cost of
 service study.

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## Q. What is generally meant by the term "cost of service study"?

- A. A cost of service study determines a utility's aggregate annual revenue
- 5 requirement necessary to recover its operating and maintenance expenses and taxes,
- 6 depreciation of its plant, and a fair return on the utility's net investment in property and plant.
- 7

# Q. What information is provided by a class cost of service study?

8 A. A class cost of service study allocates the various costs identified in the cost 9 of service study to each of the Company's rate classes, to determine as accurately as possible 10 the cost of serving each of the Company's rate classes.

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study?

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# Q. What rate classes were included in the Company's class cost of service

A. The Company's existing residential, small general service, large general
service, small primary service, large primary service, large transmission service and street

15 and outdoor area lighting service classes were allocated their respective portions of the

16 Company's operating costs in the class cost of service study.

Q. What categories of cost did you examine in developing the customer class
cost of service study summary included in Schedule WMW-E1 of your testimony?
A. I conducted a detailed analysis of all elements of investment and expense

associated with the Company's Missouri electric operation for the purpose of allocating such

21 costs to the non-lighting customer classes served by the Company. As a part of this analysis,

- 22 total expenses and investment in property and plant were classified into their
- 23 customer-related, energy-related, and demand-related components.

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# 1 Q. Were the rate base investment and expenses associated with the 2 Company's lighting customers considered in the class cost of service study you 3 performed?

4 Α. Yes, they were. However, in considering such lighting costs in my study, I 5 employed a cost of service approach similar to that historically utilized by the Commission 6 Staff. This approach consists of allocating the total of all Company investment and expense 7 to the non-lighting customer classes only, as if there were no lighting customers. This 8 allocation of such costs to the non-lighting classes is offset by also allocating, or crediting, 9 existing lighting revenues to the non-lighting customer classes. This allocation of lighting 10 costs and revenues was done based on each class' respective total net original cost rate base. 11 This process presumes that the Company's current lighting revenues, which are about 1% of 12 the Company's total revenues, currently provide a fair and reasonable recovery of the 13 Company's total costs of providing lighting service. Said another way, it is presumed that 14 allocated lighting revenues are equivalent to allocated lighting costs. 15 Q. Please describe the development of the factors used to allocate costs to 16 each customer class, other than the lighting customers. 17 Α. The allocation factors for each customer class were determined by calculating 18 the proportionate share of total customer or property units of each class and the total energy 19 or demand related units of each class, including applicable losses. These calculations were 20 developed at the various voltage levels on the Company's generation, transmission and

21 distribution system that are associated with the facilities whose costs are being allocated.

### 1 Q. After the allocation factors for each class were derived, what was the next 2 step in the study? 3 Α. The next step was to apply these allocation factors to the various functional 4 components of rate base and operating and maintenance expenses, as developed in total for 5 the Company's Missouri jurisdictional operations. Please describe how those costs and expenses were allocated to the 6 0. 7 customer classes. 8 А. The original cost and depreciation reserves of the major functional 9 components of the Company's Missouri electric rate base were allocated to customer classes 10as described below. The resulting dollar amounts (in thousands) allocated to each class are 11 provided in Schedule WMW-E1. 12 Production Plant. Production plant was allocated to each customer (1)13 class on the basis of the Four Non-Coincident Peak (4 NCP) Average and Excess Demand 14 allocation factors for each customer class at the Company's generating stations. Non-15 coincident peak demand is the customer class' maximum load at any time of the study period 16 regardless of the time of occurrence or magnitude of the Company's system peak. The four 17 non-coincident peak demands are the average of the customer class' four maximum monthly 18loads. The direct testimony sponsored by Mr. Cooper in this docket establishes why the 19 4 NCP Average and Excess methodology is appropriate for the allocation of the Missouri jurisdictional Production Plant to the various customer classes. 20 21 (2)Transmission Plant. Transmission line and substation investment was 22 allocated to each customer class on the basis of the twelve coincident peak (12 CP) demands 23 of each class at their point of input to the Company's transmission system. Coincident peak

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1	demand is the customer class' peak load at the time of occurrence of the Company's system
2	peak. The twelve coincident peak demands are the customer class' twelve monthly loads at
3	the time of the Company's twelve monthly system peaks. Such 12 CP allocation is
4	consistent with the development of the Ameren system transmission revenue requirement,
5	under the Midwest Independent Transmission System Operator, Inc. (MISO).
6	(3) <u>Distribution Plant.</u> The Company's Distribution Plant was allocated to
7	each customer class based upon the results of a detailed analysis of the functions performed
8	by the facilities in Distribution Plant Accounts 360-369. This analysis determined the
9	breakdown of each account based on its customer related and primary and secondary voltage
10	demand-related functions. Primary distribution voltage is 600 volts and above, while
11	secondary distribution voltage is below 600 volts.
12	The portion of the Distribution Plant accounts assigned to the customer
13	component was derived using the generally accepted and widely used zero intercept
14	methodology described in the National Association of Regulatory Utility Commissioners
15	(NARUC) Electric Utility Cost Allocation Manual. This approach to cost assignment is
16	predicated on the fact that there is a zero or no load component in even the smallest available
17	unit of utility distribution equipment. The zero intercept method identifies the portion of
18	plant related to a hypothetical no-load or zero-intercept condition, i.e., the cost of simply
19	making service available to a customer. The remaining, or demand-related, portion of the

20 Company's Distribution Plant accounts was split between the primary and secondary voltage

21 levels on the basis of a review of the functional utilization of various equipment and

22 hardware in such accounts. For all distribution accounts, with the exception of Account 369,

23 Services, the demand-related investment in each account was allocated to each customer

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class on the basis of the non-coincident peak demand of each class at the appropriate primary 1 2 and secondary voltage levels. The demand-related investment in Account 369, Services, was allocated to 3 each customer class on the basis of the sum of the maximum demand of all customers in the 4 5 class at the secondary level. The maximum individual customer demand was used to reflect 6 the fact that the maximum demand of individual customers dictates the sizing of their service 7 facilities. 8 Distribution Account 370, Meters, was allocated to each of the customer 9 classes by allocation factors which weigh the results of multiplying the current cost of the 10 typical metering arrangement for each customer class by the number of meters used in 11 serving that class. All metering cost is classified as customer related. 12 Account 371-1, Installation on Customer's Premises Substation equipment, 13 was allocated to the Primary class on the basis of such customers' historic use of these 14 facilities. 15 Account 373, Street Lighting & Signal Systems, was allocated to the customer classes based on their net original cost rate base, as explained earlier. 16 17 (4)General Plant. The balance in this account was allocated to each customer class on the basis of the proportion of labor expense allocated to each class. This 18 19 "labor ratio" method of allocation is the same as that employed by Mr. Weiss in arriving at 20 the Missouri portion of General Plant and Administrative and General expenses in his 21 jurisdictional cost of service study.

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1	(5) <u>Accumulated Reserves for Depreciation</u> . As such reserves are											
2	functionalized by type of plant, these reserves were allocated on the same basis as the											
3	allocation of the various plant accounts, as described above.											
4	(6) <u>Materials &amp; Supplies.</u> This component consists of fuel inventories,											
5	power pool materials related to power plants and transmission facilities, and local materials											
6	related mainly to distribution facilities. Fuel inventories and power pool materials are											
7	directly related to generation and were therefore allocated on the basis of the energy											
8	allocation factor. The local distribution materials were allocated on the basis of the											
9	composite allocation of Distribution Plant, as previously described.											
10	(7) <u>Cash Working Capital.</u> This item is related primarily to operating											
11	expenses and was therefore allocated to each customer class in proportion to the total											
12	operating expenses allocated to each class.											
13	(8) <u>Customer Advances for Construction and Deposits.</u> This component											
14	of rate base was assigned to each customer class on the basis of an analysis of the sources of											
15	such deposits in Missouri.											
16	(9) <u>Total Accumulated Deferred Income Taxes</u> . This component is related											
17	primarily to investment in property and was therefore allocated to each customer class on the											
18	basis of allocated gross plant.											
19	Q. How did you allocate the Missouri jurisdictional test year operating and											
20	maintenance expenses to the customer classes?											
21	A. With very few exceptions, the operating and maintenance expenses were											
22	allocated to the customer classes on the same basis as the related investment in plant was											
23	allocated. This type of allocation employs the familiar and widely used "expenses follow											

plant" principle of cost allocation. For example, the allocator for Transmission Lines was
 utilized to allocate Transmission Line expenses. The only exceptions to this procedure are as
 follows:

4 (1) <u>Production Expenses.</u> This item consists of two categories: (1) fixed, 5 which includes standard operating crews, nuclear support staff and net interchange capacity 6 charges; and (2) variable, which includes fuel, fuel handling, production plant maintenance 7 expenses and net interchange power energy costs. The fixed portion of production expenses 8 was allocated on the same basis as Production Plant, while the variable portion was allocated 9 using a variable allocator based on the megawatt-hours required at the generator to provide 10 service to each respective customer class.

11 System Revenues. This item consists of revenues derived from system (2)12 capacity sales, transmission service charges and miscellaneous rentals. Reserve capacity and 13 transmission service charges primarily contribute to the reduction of fixed charges on 14 transmission facilities, while a significant portion of miscellaneous rental revenue is 15 associated with General Plant. Thus, these revenues were allocated to the customer classes 16 based on the application of the previously mentioned Transmission Plant allocators to the 17 reserve capacity and transmission service revenues, and "labor ratio" allocators to the 18 remaining miscellaneous rental revenue.

Customer Accounts Expenses. An analysis of Account 903, Customer
 Records & Collection Expenses, indicated that approximately 18 percent of such expenses
 are devoted to credit and collection activities. Therefore, this portion of Account 903 and all
 of Account 904, Uncollectible Accounts, were allocated to each customer class on the basis
 of the annual level of collection activities applicable to each customer class. The remaining

1 82 percent of Account 903, and other direct Customer Accounts Expenses were allocated to 2 each customer class utilizing a weighted billing and customer accounts administration 3 allocation factor. Account 902, Meter Reading Expenses, was allocated to each class by 4 weighting the results of applying the monthly contract meter reading cost per meter to the 5 respective number of meters in each customer class. Account 901, Supervision, was allocated to each class on the basis of the composite allocation of all other Customer 6 7 Accounts Expenses. 8 (4)Customer Service & Sales Expenses. These expenses were allocated 9 to each customer class using the composite allocation of Customer Accounts Expenses. 10 Interest on Customer Surety Deposits. These expenses were allocated (5)11 to each customer class on the basis of the previously allocated Customer Advances and 12 Deposits, since advances and deposit accounts are typically representative of where surety 13 deposits are booked. 14 (6) Administrative & General (A&G) Expenses. The Electric Power Research 15 Institute (EPRI) subscription included in the test year A&G expenses is based upon a formula 16 incorporating the Company's kilowatt-hour sales and revenues. Therefore, this expense was 17 allocated to each customer class on the basis of the application of this formula to the sales 18 and revenues of each customer class during the study period. 19 All remaining A&G expenses were allocated to the customer classes on the 20 basis of the class composite distribution of previously allocated labor expense. As indicated 21 earlier, this allocation of A&G expenses reflects the same methodology as that utilized by 22 Mr. Weiss in the Company's jurisdictional cost of service study.

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1	Q.	How did you allocate the test year depreciation expenses?
2	А.	Since depreciation expenses are functionalized and are directly related to the
3	Company's o	riginal cost investment in plant, depreciation expense within each function was
4	allocated to e	ach customer class on the basis of the previously allocated original cost
5	production, t	ransmission, distribution and general plant.
6	Q.	How did you allocate the test year real estate and property taxes?
7	А.	Real estate and property tax expenses are directly related to the Company's
8	original cost	investment in plant, so these expenses were allocated to customer classes on the
9	basis of the s	um of the previously allocated production, transmission, distribution and general
10	plant investn	nent.
11	Q.	How did you allocate the test year income taxes?
12	А.	Income tax expense is directly related to the Company's net operating income
13	as a proporti	on of its net rate base investment, i.e. rate of return on its net original cost rate
14	base. As a re	esult, income taxes were allocated to each class on the basis of the net original
15	cost rate base	e allocated to each customer class.
16	Q.	Did you make any adjustments to Company witness James R. Pozzo's
17	weather nor	malized base rate revenues?
18	А.	Yes, despite Mr. Pozzo's effort to replicate Mr. Weiss' weather normalized
19	base rate rev	enues, there was a \$21,883 difference. The difference was allocated to the
20	classes based	I on the allocation of net original cost rate base. Such treatment is consistent
21	with the allo	cation of lighting revenues mentioned earlier in my testimony. This adjustment
22	can be found	on my Schedule WMW-E1, line 5 titled Rate Revenue Variance.

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1	Q.	Please identify Schedule WMW-E2.										
2	Α.	Schedule WMW-E2 was derived from my class cost of service summary										
3	Schedule WN	4W-E1. To develop Schedule WMW-E2, I modified the base revenues of each										
4	class in Sche	dule WMW-E1 to reflect the class revenues necessary for the Company to										
5	realize equalized rates of return from each customer class at the Company's current level o											
6	total Missouri revenues.											
7	Q.	Please describe the methodology used to equalize rates of return for each										
8	customer cla	ss, as reflected in your Schedule WMW-E2.										
9	А.	The total net original cost rate base of each customer class was multiplied by										
10	the Missouri	jurisdictional test year return of 8.869% to obtain the required total net										
11	operating inc	ome for each class. This net operating income was then added to the operating										
12	expenses for	each class to obtain the total operating revenue for each class required for equal										
13	class rates of	return. The resulting cost of service of each customer class is set forth on line 6										
14	of Schedule	WMW-E2. However, the revenue requirement of each customer class is as										
15	indicated in l	Mr. Cooper's Schedule WLC-E2										
16	ľ	V. <u>UNBUNDLING FUNCTIONAL COST COMPONENTS</u>										
17	Q.	What is your second area of responsibility in this case?										
18	Α.	My second area of responsibility is to desegregate or unbundle the Company's										
19	class revenue	e requirements in its allocated class cost of service study. These costs were										
20	divided into	the following Functionalized Cost Categories.										
21		1) Customer Related Costs										
22		2) Distribution - Demand Related Costs										
23		3) Transmission - Demand Related Costs										

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1		4) Production - Energy Related Costs
2		5) Production - Demand Related Costs
3	Q.	Why is a breakdown of such costs necessary?
4	А.	This breakdown was required by Mr. Cooper for use in the development of
5	proposed rate	s in this case, which are discussed in Mr. Cooper's direct testimony.
6	Q.	Please describe the general method utilized in your analyses for the
7	unbundling	of the Company's revenue requirement.
8	Α.	This unbundling process entailed a detailed analysis of the various
9	components of	of the equalized customer class rates of return study presented in Schedule
10	WMW-E2 of	my testimony. As the Company's various components of cost presented in
11	Schedule WM	AW-E1 were allocated to customer classes on either a customer, energy or
12	demand relate	ed basis, the unbundling process consisted of extracting these components of
13	cost and assig	gning them to the functional cost categories indicated earlier.
14	Q.	In this accounting of the Company's total costs, how did you reconcile
15	total costs w	ith the Company's various sources of revenue?
16	Α.	As the objective was to unbundle the costs associated with the Company's
17	base rate reve	enues, the Company's miscellaneous revenue sources associated with Other,
18	Lighting and	System revenues were deducted from the unbundled functional cost categories
19	in a manner r	effective of where the costs associated with such services appear in the
20	Company's a	ccounts. Some examples of Other Company revenues are late payment charges,
21	returned chec	ek charges, meter rentals, substation rentals and disconnect/reconnect charges.
22	System rever	ues generally consist of transmission service charges and facility and land rental
23	receipts.	

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1	Q.	Following this process of netting the Company's miscellaneous revenues
2	against their	supporting costs, were the remaining unbundled costs the amounts which
3	are, in the ag	gregate, recovered in the Company's base rate revenues?
4	А.	Yes, the steps I have described equated the Company's base rate revenues with
5	the costs asso	ciated with such revenues. The results of this analysis are contained in
6	Schedule WM	1W-E3 of my testimony. As I indicated earlier, this information was used by
7	Mr. Cooper in	n the development of the revised rates being proposed by the Company in this
8	case.	
9	Q.	Does this conclude your direct testimony?
0	А.	Yes, it does.

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# **BEFORE THE PUBLIC SERVICE COMMISSION OF THE STATE OF MISSOURI**

In the Matter of Union Electric Company d/b/a AmerenUE for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Company's Missouri Service Area.

Case No. ER-2007-0002

### **AFFIDAVIT OF WILLIAM M. WARWICK**

STATE OF MISSOURI ) ) ss CITY OF ST. LOUIS )

William M. Warwick, being first duly sworn on his oath, states:

1. My name is William M. Warwick. I work in the City of St. Louis, Missouri,

and I am employed by Ameren Services Company as Managing Supervisor of Rate Engineering.

2. Attached hereto and made a part hereof for all purposes is my Direct

Testimony on behalf of Union Electric Company d/b/a AmerenUE consisting of 14 pages

and Schedules WMW-E1 through WMW-E3, all of which have been prepared in written

form for introduction into evidence in the above-referenced docket.

3. I hereby swear and affirm that my answers contained in the attached testimony

to the questions therein propounded are true and correct.

<u>Villian M. Warwick</u> FJuly, 2006.

Subscribed and sworn to before me this. day of July, 2006. My commission expires: CAROLYN J. WOODSTOCK Notary Public - Notary Seal STATE OF MISSOURI Franklin County My Commission Expires: May 19, 2008

#### <u>AmerenUF</u> MISSOURI ELECTRIC OPERATIONS ELECTRIC COST OF SERVICE ALLOCATION STUDY 12 MONTHS ENDED JUNE 2006

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TITLE:	SUMMARY						SMALL		LARGE		SMALL		LARGE		LARGE
		M	<u>AISŞOURI</u>	RĘ	<u>SIDENTIAL</u>	9	EN SERV		GEN SERV	Ę	PRIMARY	Ē	PRIMARY		TRANS
1	BASE REVENUE	\$	1,970,790	\$	850,213	\$	226,710	\$	418.267	\$	182,440	\$	155,952	5	137,209
2	OTHER RÉVENUE	\$	62,831	\$	32,743	\$	6,417	\$	10,700	\$	4,656	\$	4.991	\$	3,324
3	LIGHTING REVENUE	\$	27,111	\$	13,515	\$	3,093	\$	5,129	\$	2,117	\$	2,024	\$	1,231
4	SYSTEM REVENUE	\$	305,352	\$	141,552	\$	34,164	\$	60,213	\$	26,163	\$	25,343	5	17,917
5	RATE REVENUE VARIANCE	5	(22)	\$	(11)	5	(2)	\$	(4)	\$	(2)	\$	(2)	\$	(1)
6 7	TOTAL OPERATING REVENUE	\$	2,366,061	\$	1,038,013	\$	270,381	\$	494,305	\$	215,374	\$	188,307	\$	159,680
8	TOTAL PROD, T&D, CUST, AND A&G EXP	\$	1,466,770	\$	631,615	\$	151,370	\$	290,712	\$	138,649	\$	140,403	\$	114,022
9	TOTAL DEPR AND AMMORT EXPENSES	\$	386,941	\$	197,618	\$	44,7 <del>9</del> 6	\$	72,330	\$	28,930	\$	27,432	\$	15,B34
10	REAL ESTATE AND PROPERTY TAXES	\$	99,528	\$	50,795	\$	11,520	\$	18,610	\$	7,447	\$	7,065	5	4,092
11	INCOME TAXES	\$	233,191	\$	116,251	\$	26,604	\$	44,120	\$	18,212	\$	17,410	\$	10,592
12	PAYROLL TAXES	\$	19,601	\$	9,331	\$	2,093	\$	3,657	\$	1,732	\$	1,700	\$	1,087
13	FEDERAL EXCISE TAX	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-	\$	-
14	REVENUE TAXES	ş	·	\$		\$		\$	-	\$		\$		\$	
15										-		_			
16. 17	TOTAL OPERATING EXPENSES	\$	2,206,031	\$	1,005,611	\$	236,384	\$	429,429	\$	194,970	\$	194,009	\$	145,627
18 19	NET OPERATING INCOME	\$	160,030	\$	32,402	\$	33,997	\$	64,876	\$	20,404	\$	(5,702)	\$	14,053
20	GROSS PLANT IN SERVICE	s	11.224.426	\$	5,727,483	\$	1,298,968	5	2,098,760	5	840,189	5	797,165	\$	461,861
21	RESERVES FOR DEPRECIATION	ŝ	4,500,562	ŝ	2,336,943	\$	524,193			5	324,668	s	306,876	s	173,298
22		÷		<u>.</u>		÷		1		-		-		-	
23 24	NET PLANT IN SERVICE	\$	6,723,865	\$	3,390,540	\$	774,776	\$	1,264,176	\$	515,521	\$	490,289	\$	288,563
25	MATERIALS & SUPPLIES - FUEL	s	227,226	5	83,227	s	22,416	\$	49,074	\$	24,304	\$	25.033	s	23,172
26	MATERIALS & SUPPLIES -LOCAL	\$	21,434	\$	13,180	\$	2,694	\$	3,557	\$	1,060	s	914	\$	29
27	CASH WORKING CAPITAL	\$	(13,595)	\$	(5,854)	\$	(1,403)	\$	(2,695)	\$	(1,285)	\$	(1,301)	\$	(1.057)
28	CUSTOMER ADVANCES & DEPOSITS	\$	(14,677)	\$	(6,243)	\$	(4,406)	\$	(2,673)	\$	(845)	5	(511)		
29 30	ACCUMULATED DEFERRED INCOME TAXES	<u>s</u>	(1 <u>.0</u> 95.577)	<u>\$</u>	(559,136)	<u>s</u>	(126,813)	) <u>s</u>	(204,854)	5	(81,970)		(77,764)		(45,040)
31 32	TOTAL NET ORIGINAL COST RATE BASE	\$	5,848,677	\$	2,915,713	\$	667,264	\$	1,106,585	\$	456,786	\$	436,660	5	265,668
33	RATE OF RETURN		2.736%		1.111%		5.095%		5.863%		4.467%		-1.306%		5.290%

### <u>AmerenUE</u> MISSOURI ELECTRIC OPERATIONS EQUALIZED CLASS RATES OF RETURN ANALYSIS 12 MONTHS ENDED JUNE 2006

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	TLE: SUMMARY EQUAL ROR (\$000's)		IISSOURI	PE	SIDENTIAL	SMALL GEN SERV			LARGE EN SERV		SMALL RIMARY		LARGE RIMARY		LARGE TRANS
		ц	1000011			0		Ų		<u></u>	NUMPER L	<u>r</u>			TRANS
1	BASE REVENUE	\$	2,331,499	\$	1,078,160	\$	251,997	\$	451,572	\$	202,566	\$	200,486	\$	146,718
2	OTHER REVENUE	\$	62,831	\$	32,743	\$	6,417	\$	10,700	\$	4,656	\$	4,991	\$	3,324
3	LIGHTING REVENUE	\$	27,111	\$	13,515	\$	3,093	\$	5,129	\$	2,117	\$	2,024	\$	1,231
4	SYSTEM REVENUE	\$	305,352	5	141,552	\$	34,164	\$	60,213	\$	26,163	\$	25,343	\$	17,917
5	RATE REVENUE VARIANCE	<u>\$</u>	(22)	\$	(11)	\$	(2)	\$	(4)	\$_	(2)	\$	(2)	\$	(1)
6	TOTAL OPERATING REVENUE	\$	2,726,770	\$	1,265,960	\$	295,668	\$	527,610	\$	235,500	\$	232,842	5	169,189
7															
8	TOTAL PROD., T&D, CUSTOMER, AND A&G EXP.	\$	1,468,790	\$	633,370	\$	151,474	\$	290,750	\$	138,667	\$	140,508	\$	114,022
9	TOTAL DEPR. AND AMMOR, EXPENSES	\$	386,941	\$	197,618	\$	44,796	\$	72,330	\$	28,930	\$	27,432	\$	15,834
10	REAL ESTATE AND PROPERTY TAXES	\$	99,528	\$	<b>50,7</b> 95	\$	11,520	\$	18,610	\$	7,447	\$	7,065	\$	4,092
11	INCOME TAXES	\$	233,191	\$	116,251	\$	26,604	\$	44,120	\$	18,212	\$	17,410	\$	10,592
12	PAYROLL TAXES	\$	19,601	\$	9,331	\$	2,093	\$	3,657	\$	1,732	\$	1,700	\$	1,087
13	FEDERAL EXCISE TAX	\$	-	\$	•	\$	-	\$	-	\$	-	\$	-	\$	
14	REVENUE TAXES	<u>\$</u>	<u> </u>	<u>\$</u>	_ <u> </u>	<u>\$</u>	<u> </u>	\$	-	<u>\$</u>	<u> </u>	\$	<u>.</u>	<u>\$</u>	<u> </u>
15															
16	TOTAL OPERATING EXPENSES	\$	2,208,051	\$	1,007,366	\$	236,489	\$	429,467	\$	194,988	\$	194,114	\$	145,627
17															
18	NET OPERATING INCOME	\$	518,719	\$	258,595	\$	59,180	\$	98,143	\$	40,512	\$	38,727	\$	23,562
19															
20	GROSS PLANT IN SERVICE	\$	11,224,426	\$	5,727,483	\$	1,298,968	\$	2,098,760	\$	840,189	\$	797,165	\$	461,861
21	RESERVES FOR DEPRECIATION	<u>\$</u>	4,500,562	<u>\$</u>	2,336,943	<u>\$</u>	524,193	5	834,584	\$	324,668	\$	306,876	\$	173,298
22															
23	NET PLANT IN SERVICE	\$	6,723,865	\$	3,390,540	\$	774 776	\$	1,264,176	\$	515,521	\$	490,289	\$	288,563
24															
25	MATERIALS & SUPPLIES - FUEL	\$	227,226	\$	83,227	\$	22,416	\$	49,074	\$	24,304	\$	25,033	\$	23,172
26	MATERIALS & SUPPLIES -LOCAL	\$	21,434	\$	13,180	\$	2,694	\$	3,557	\$	1,060	\$	914	\$	29
27	CASH WORKING CAPITAL	\$	(13,595)	\$	(5,854)	\$	(1,403)	\$	(2,695)	\$	(1,285)	\$	(1,301)	\$	(1,057)
	CUSTOMER ADVANCES & DEPOSITS	\$	(14,677)		(6,243)	\$	(4,406)	\$	(2,673)	\$	(845)	\$	(511)	\$	
29	ACCUMULATED DEFERRED INCOME TAXES	<u>\$</u>	(1,095,577)	<u>\$</u>	(559,136)	<u>\$</u>	(126,813)	<u>\$</u>	(204,854)	<u>\$</u>	(81,970)	<u>\$</u>	(77,764)	<u>\$</u>	(45,040)
30															
31	TOTAL NET ORIGINAL COST RATE BASE	\$	5,848,677	\$	2,915,713	\$	667,264	\$	1,106,586	\$	456,786	\$	436,660	\$	265,668
32															
33	RATE OF RETURN		8.869%		8.869%		8.869%		8.869%		8.869%		8.869%		8.869%

### AmerenUE MISSOURI GAS OPERATIONS CLASS COST OF SERVICE ALLOCATION STUDY 12 MONTHS ENDED JUNE 2006

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	Total					Small		Large		Small		Large		Large
		<u>lissouri</u>	Re	sidential	_ <u>G</u>	en Serv	Gen Serv			Primary		Primary	L	g Trans
Unbundled Class Cost of Service (\$000's)														
Customer	\$	139,183	\$	115,416	\$	16,672	\$	5,030	\$	1,050	\$	1,014	\$	1
Production Demand	\$	879,465	\$	410,165	\$	97,518	\$	171,846	\$	75,656	\$	73,386	\$	50,892
Production Energy	\$	917,295	\$	336,242	\$	90,202	\$	197,488	\$	98,370	\$	101,420	\$	93,573
Transmission Demand	\$	22,365	\$	10,041	\$	2,259	\$	4,138	\$	2,136	\$	2,181	\$	1,609
Distribution Demand	<u>\$</u>	373,169	\$	206,284	<u>\$</u>	45,342	<u>\$</u>	73,066	<u>\$</u>	25,351	<u>\$</u>	22,483	\$	642
	\$	2,331,477	\$	1,078,149	\$	251,994	\$	451,568	\$	202,564	\$	200,484	\$	146,717

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