Exhibit No.: 633
Issue(s): Class Cost of Service Study
Witness: William M. Warwick
Sponsoring Party: Union Electric Company
Type of Exhibit: Direct Testimony
Case No.: ER-2012-0166
Date Testimony Prepared: February 3, 2012

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2012-0166

DIRECT TESTIMONY

OF

WILLIAM M. WARWICK

ON

BEHALF OF

UNION ELECTRIC COMPANY
d/b/a Ameren Missouri

St. Louis, Missouri
February, 2012

TABLE OF CONTENTS

DIRECT TESTIMONY

OF

WILLIAM M. WARWICK

CASE NO. ER-2012-0166

I. INTRODUCTION

Q. Please state your name and business address.

A. William M. Warwick, Union Electric Company d/b/a Ameren Missouri ("Ameren Missouri" or "Company"), One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri 63103.

Q. What is your position with Ameren Missouri?

A. I am Managing Supervisor of Rate Engineering.

Q. Please describe your educational background and employment experience.

A. I received a Bachelor of Science degree in Engineering Management from the University of Missouri-Rolla in December 1978.

I was employed at ACF Industries' Amcar Division-St. Louis Plant from December 1978 to December 1981, as an engineer in the Industrial Engineering Department, responsible for project planning. I began working at Union Electric Company in the Rate Engineering Department in December 1981.

My duties and responsibilities include assignments related to the Company's gas and electric rates, including participation in regulatory proceedings, rate analysis, the development and interpretation of the Company's gas and electric tariffs, including rules and regulations, and other rate or regulatory projects as assigned.

II. PURPOSE OF TESTIMONY

Q. What is the purpose of your direct testimony in this proceeding?

A. My direct testimony in this proceeding concerns the following:

(1) Developing a fully allocated embedded customer class cost of service study for the Company's electric operations for the test year, which is the twelve months ending September 30, 2011, with updates for known and measurable changes through July 31, 2012; and

(2) Disaggregating, or unbundling, the various functional cost components included in the Company's allocated class cost of service study.

III. CLASS COST OF SERVICE STUDY

Q. Please explain the information contained in Schedule WMW-E1 attached to your testimony.

A. Schedule WMW-E1 contains the results of my customer class cost of service study for the Company's electric operations for the test year ending September 30, 2011. This study is based upon the Company's present rate levels and uses weather normalized sales. An electric cost of service study (revenue requirement) was prepared by Company witness Gary S. Weiss and, as discussed in his direct testimony, provided the total rate base and expense items that formed the starting point for this class cost of service study.

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 requirement necessary to recover its operating and maintenance expenses and taxes, depreciation of its plant, and a fair return on the utility's net investment in property and plant.

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

A. A class cost of service study determines, as accurately as possible, the cost of serving each of the Company's rate classes and then allocates the various costs identified in the cost of service study to each of those rate classes.

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

A. The Company's existing residential, small general service, large general service/small primary service, large primary service, large transmission service and lighting service classes were allocated their respective portions of the Company's operating costs in the class cost of service study. The Company has three active lighting service classifications: 1) Street & Outdoor Area Lighting – Company-Owned 5(M), 2) Street and Outdoor Area Lighting – Customer-Owned 6(M) and 3) Municipal Street Lighting – Incandescent 7(M). These lighting service classifications are combined into a "lighting" class 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 electric operations for the purpose of allocating such costs to the customer classes served by the Company. As a part of this analysis, total expenses and investment in property and plant were classified into their customer-related, energy-related, and demand-related components.

Q. Please describe the development of the factors used to allocate costs to each customer class.

A. The allocation factors for each customer class were determined by calculating the proportionate share of total customer or property units of each class and the total energy or demand related units of each class, including applicable losses. These calculations were developed at the various voltage levels on the Company's generation, transmission and distribution system that are associated with the facilities whose costs are being allocated.

Q. After the allocation factors for each class were derived, what was the next step in the study?

A. The next step was to apply these allocation factors to the various functional components of rate base and operating and maintenance expenses, as developed, in total, for the Company's electric operations.

Q. Please describe how those costs and expenses were allocated to the customer classes.

A. The original cost and depreciation reserves of the major functional components of the Company's electric rate base were allocated to customer classes as described below. The resulting dollar amount (in thousands) allocated to each class is shown in Schedule WMW-E1.

(1) Production Plant. Production plant was allocated to each customer class on the basis of the Four Non-Coincident Peak ("4 NCP") Average and Excess Demand allocation factors for each customer class at the Company's generating stations. Non-coincident peak demand is the customer class' maximum load at any time of the study period regardless of the time of occurrence or magnitude of the Company's system peak. The four non-coincident peak demands are the average of the customer class' four maximum monthly loads. The direct testimony sponsored by Ameren Missouri Witness Wilbon L. Cooper in this docket describes why the 4 NCP Average and Excess method is appropriate for the allocation of the electric Production Plant to the various customer classes.

(2) Transmission Plant. Transmission line and substation investment was allocated to each customer class on the basis of the twelve coincident peak ("12 CP") demands of each class at their point of input to the Company's transmission system. Coincident peak demand is the customer class' load at the time of occurrence of the Company's system peak. The twelve coincident peak demands are the customer class' twelve monthly loads at the time of the Company's twelve monthly system peaks. Such 12 CP allocation is consistent with the development of the Ameren system transmission

revenue requirement, under the Midwest Independent Transmission System Operator, Inc.'s ("MISO") Attachment O Rate Formulae in the Open Access Transmission, Energy and Operating Reserve Markets Tariff on file at the Federal Energy Regulatory Commission ("FERC").

(3) Distribution Plant. The Company's Distribution Plant was allocated to each customer class based upon the results of an analysis of the functions performed by the facilities in Distribution Plant Accounts 360-369. This analysis determined the breakdown of each account based on its customer-related and demand-related components. The demand-related component was further broken down by high voltage primary, primary voltage and secondary voltage demand-related functions. High voltage primary is 34.5 kilovolts up to 69 kilovolts, primary distribution voltage is above 600 volts up to 34.5 kilovolts, while secondary distribution voltage is 600 volts or less.

The portion of the Distribution Plant accounts assigned to the customer component was derived using the generally accepted zero intercept method described in the National Association of Regulatory Utility Commissioners ("NARUC") Electric Utility Cost Allocation Manual. This approach to cost assignment is predicated on the fact that there is a zero or no load component in even the smallest available unit of utility distribution equipment. The zero intercept method identifies the portion of plant related to a hypothetical no-load or zero-intercept condition, i.e., the cost of simply making service available to a customer. The remaining, or demand-related, portion of the Company's Distribution Plant accounts was split among the high voltage primary, primary voltage and secondary voltage levels on the basis of a review of the functional utilization of various equipment and hardware in such accounts. For all distribution

accounts, with the exception of Account 369, Services, the demand-related investment in each account was allocated to each customer class on the basis of the non-coincident peak demand of each class at the appropriate high voltage, primary and secondary voltage levels.

The demand-related investment in Account 369, Services, was allocated to each customer class on the basis of the sum of the maximum demand of all customers in the class at the secondary level. The maximum individual customer demand was used to reflect the fact that the maximum demand of individual customers dictates the sizing of their service facilities.

Distribution Account 370, Meters, was allocated to each of the customer classes by allocation factors which weigh the results of multiplying the current cost of the typical metering arrangement for each customer class by the number of meters used in serving that class. All metering cost is classified as customer related.

Account 371-1, Installation on Customer's Premises Substation equipment, was allocated to the Primary class on the basis of such customers' historical use of these facilities.

Account 373, Street Lighting & Signal Systems, was directly assigned to the lighting class.

(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 "labor ratio" method of allocation is the same as that employed by Mr. Weiss in arriving at the General Plant and Administrative and General Expense in his electric cost of service study.

(5) Accumulated Reserves for Depreciation. Because such reserves are functionalized by type of plant, these reserves were allocated on the same basis as the allocation of the various plant accounts, as described above.

(6) Materials & Supplies. This component consists of fuel inventories and general materials and supplies related to power plants, transmission facilities and distribution facilities. Fuel inventories and the power plants and transmission facilities materials are directly related to the generation and transmission of energy and were therefore allocated on the basis of the energy allocation factor. The local distribution materials were allocated on the basis of the composite allocation of Distribution Plant, as previously described.

(7) Cash Working Capital. This item is related primarily to operating expenses and was therefore allocated to each customer class in proportion to the total operating expenses allocated to each class.

(8) Customer Advances for Construction and Deposits. This component of rate base was assigned to each customer class on the basis of an analysis of the sources of such deposits in Missouri.

(9) Total Accumulated Deferred Income Taxes. This component is related primarily to investment in property and was therefore allocated to each customer class on the basis of allocated gross plant.

Q. How did you allocate the electric test year operating and maintenance expenses to the customer classes?

A. With very few exceptions, operating and maintenance expenses were allocated to the customer classes on the same basis as the related investment in plant was

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 used to allocate Transmission Line expenses. The only exceptions to this procedure are as follows:

(1) Production Expenses. This item consists of two categories: (a) fixed, which includes standard operating and maintenance ("O&M") crews, nuclear support staff and a portion of non-labor production plant O&M expenses; and (b) variable, which includes fuel, fuel handling, interchange power costs, and the remaining portion of non-labor production plant O&M expenses. The fixed portion of production expenses was allocated on the same basis as Production Plant, while the variable portion was allocated using a variable allocator based on the megawatt-hours required at the generator to provide service to each respective customer class.

(2) Customer Accounts Expenses. An analysis of Account 903, Customer Records & Collection Expenses, indicated that approximately 24% 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 76% of Account 903 expense, and other direct Customer Accounts Expenses, were allocated to each customer class utilizing a weighted billing and customer accounts administration allocation factor. Account 902, Meter Reading Expenses, was allocated to each class by weighting the results of applying the monthly contract meter reading cost per meter to the 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 Accounts Expenses.

(3) Customer Service & Sales Expenses. These expenses were allocated to each customer class using the composite allocation of Customer Accounts Expenses.

(4) Interest on Customer Surety Deposits. These expenses were allocated to each customer class on the basis of the previously allocated Customer Advances and Deposits, since advances and deposit accounts are typically representative of where surety deposits are booked.

(5) Administrative & General ("A&G") Expenses. The Electric Power Research Institute ("EPRI") subscription included in the test year A&G expenses is based upon a formula incorporating the Company's kilowatt-hour sales and revenues. Therefore, this expense was allocated to each customer class on the basis of the application of this formula to the sales and revenues of each customer class during the study period.

With the exception of energy efficiency expense, all remaining A&G expenses were allocated to the customer classes on the basis of the class composite distribution of previously allocated labor expense. As indicated earlier, this allocation of A&G expenses reflects the same method as that used by Mr. Weiss in the Company's electric cost of service study. Allocation of energy efficiency expense is discussed later in my testimony.

Q. How did you allocate off-system sales revenues?

A. Off-system sales revenues were allocated to each class using each class' variable production allocation factor based on the megawatt-hours required at the

generator to provide service to each respective customer class. This allocation is consistent with the Report and Order of the Missouri Public Service Commission in Case No. ER-2010-0036.

Q. How did you allocate the test year depreciation expenses?

A. Since depreciation expenses are functionalized and are directly related to the Company's original cost investment in plant, depreciation expense within each function was allocated to each customer class on the basis of the previously allocated original cost production, transmission, distribution and general plant.

Q. How did you allocate the test year real estate and property taxes?

A. Real estate and property tax expenses are directly related to the Company's original cost investment in plant, so these expenses were allocated to customer classes on the basis of the sum of the previously allocated production, transmission, distribution and general plant investment.

Q. How did you allocate the test year income taxes?

A. Income tax expense is directly related to the Company's net operating income as a proportion of its net rate base investment, i.e., rate of return on its net original cost rate base. As a result, income taxes were allocated to each class on the basis of the net original cost rate base allocated to each customer class.

Q. How did you allocate the revenue requirement associated with energy efficiency to the various affected customer classifications?

A. Costs associated with the Company's energy efficiency were split into two categories: 1) program costs reflected as a regulatory asset in Mr. Weiss' jurisdictional revenue requirement study and 2) energy efficiency revenue requirements reflected in the

Company's January 2012 Missouri Energy Efficiency Investment Act ("MEEIA") filing, which are also reflected in Production and A&G expenses in Mr. Weiss' jurisdictional study. The revenue requirement associated with energy efficiency program costs in category 1 was directly assigned to the respective rate classes based on utilization of program benefits to date. The revenue requirement associated with category 2 expenses was allocated consistent with the MEEIA filing.

Q. Please identify Schedule WMW-E2.

A. Schedule WMW-E2 was derived from my class cost of service summary, Schedule WMW-E1. To develop Schedule WMW-E2, I modified the base revenues of each class in Schedule WMW-E1 to reflect the class revenues necessary for the Company to realize equalized rates of return from each customer class at the Company's current level of total Missouri revenues.

Q. Please describe the method used to equalize rates of return for each customer class, as reflected in your Schedule WMW-E2.

A. The total net original cost rate base of each customer class was multiplied by the Missouri electric test year return of 8.40% to obtain the required total net operating income for each class. This net operating income was then added to the operating expenses for each class to obtain the total operating revenue for each class required for equal class rates of return. The resulting cost of service of each customer class is set forth on line 6 of Schedule WMW-E2. However, the revenue requirement of each customer class is as indicated in Mr. Cooper's Schedule WLC-E2.

IV. UNBUNDLING FUNCTIONAL COST COMPONENTS

Q. What is your second area of responsibility in this case?

A. My second area of responsibility is to desegregate or unbundle the Company's class revenue requirements in its allocated class cost of service study. These costs were divided into the following Functionalized Cost Categories:

1) Customer Related Costs

2) Distribution - Demand Related Costs

3) Transmission - Demand Related Costs

4) Production - Energy Related Costs

5) Production - Demand Related Costs

Q. Please describe the general method used in your analyses for the unbundling of the Company's revenue requirement.

A. This unbundling process entailed a detailed analysis of the various components of the equalized customer class rates of return study presented in Schedule WMW-E2 of my testimony. As the Company's various components of cost presented in Schedule WMW-E1 were allocated to customer classes on a customer-, energy- or demand-related basis, the unbundling process consisted of extracting these components of cost and assigning them to the functional cost categories indicated earlier.

Q. In this accounting of the Company's total costs, how did you reconcile total costs with the Company's various sources of revenue?

A. Because the objective was to unbundle the costs associated with the Company's base rate revenues, the Company's miscellaneous revenue sources associated with Off-System and Other revenues were deducted from the unbundled functional cost

categories in a manner reflective of where the costs associated with such services appear in the Company's accounts. Some examples of Other Company revenues are late payment charges, returned check charges, meter rentals, substation rentals, facility and land rentals and disconnect/reconnect charges.

Q. Following this process of netting the Company's miscellaneous revenues against their supporting costs, were the remaining unbundled costs the amounts which are, in the aggregate, recovered in the Company's base rate revenues?

A. Yes, the steps I have described equated the Company's base rate revenues with the costs associated with such revenues. The results of this analysis are contained in Schedule WMW-E3 of my testimony. As I indicated earlier, this information was used by Mr. Cooper in the development of the revised rates proposed by the Company in this case.

Q. Does this conclude your direct testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of Union Electric Company d/b/a Ameren Missouri's Tariffs to Increase Its Revenues for Electric Service.	)))	Case No. ER-2012-0166

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 Union Electric Company d/b/a Ameren Missouri as a Managing Supervisor in 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 Ameren Missouri 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.

William M. Warwick
William M. Warwick

Subscribed and sworn to before me this 2nd day of February, 2012.

Mary Hoyt
Notary Public

My commission expires: 4-11-2014

Mary Hoyt - Notary Public
Notary Seal, State of
Missouri - Jefferson County
Commission #10397820
My Commission Expires 4/11/2014

Ameren Missouri
MISSOURI ELECTRIC OPERATIONS
CLASS COST OF SERVICE ALLOCATION STUDY

TITLE: SUMMARY CURRENT ROR RESULTS ($000'S)

		MISSOURI	RESIDENTIAL	SMALL GENERAL SERV	LARGE G.S. / SMALL PRIMARY	LARGE PRIMARY	LARGE TRANSMISSION	LIGHTING
1	BASE REVENUE	$ 2,580,158	$ 1,170,105	$ 288,054	$ 749,850	$ 189,820	$ 147,949	$ 34,380
2	OTHER REVENUE	$ 68,583	$ 38,657	$ 6,658	$ 15,873	$ 3,763	$ 3,078	$ 555
3	LIGHTING REVENUE	$ -	$ -	$ -	$ -	$ -	$ -	$ -
4	SYSTEM, OFF-SYS SALES & DISP OF ALLOW	$ 360,103	$ 133,880	$ 34,603	$ 115,232	$ 36,067	$ 38,542	$ 1,780
5	RATE REVENUE VARIANCE	$ -	$ -	$ -	$ -	$ -	$ -	$ -
6	TOTAL OPERATING REVENUE	$ 3,008,844	$ 1,342,642	$ 329,314	$ 880,954	$ 229,650	$ 189,568	$ 36,715
7								
8	TOTAL PROD, T&D, CUST, AND A&G EXP	$ 1,982,446	$ 898,942	$ 198,571	$ 561,186	$ 159,113	$ 144,313	$ 20,321
9	TOTAL DEPR AND AMMORT EXPENSES	$ 461,617	$ 243,153	$ 49,410	$ 116,132	$ 26,841	$ 17,341	$ 8,741
10	REAL ESTATE AND PROPERTY TAXES	$ 142,152	$ 74,466	$ 15,498	$ 35,478	$ 8,288	$ 5,826	$ 2,597
11	INCOME TAXES	$ 203,097	$ 104,613	$ 21,783	$ 52,037	$ 12,541	$ 8,856	$ 3,267
12	PAYROLL TAXES	$ 23,042	$ 11,897	$ 2,428	$ 5,845	$ 1,463	$ 985	$ 425
13	FEDERAL EXCISE TAX	$ -	$ -	$ -	$ -	$ -	$ -	$ -
14	REVENUE TAXES	$ -	$ -	$ -	$ -	$ -	$ -	$ -
15								
16	TOTAL OPERATING EXPENSES	$ 2,812,354	$ 1,333,071	$ 287,689	$ 770,678	$ 208,246	$ 177,320	$ 35,351
17								
18	NET OPERATING INCOME	$ 196,490	$ 9,571	$ 41,626	$ 110,276	$ 21,404	$ 12,249	$ 1,365
19								
20	GROSS PLANT IN SERVICE	$14,610,042	$ 7,646,261	$ 1,587,513	$ 3,660,297	$ 854,696	$ 595,719	$ 265,557
21	RESERVES FOR DEPRECIATION	$ 6,238,748	$ 3,296,500	$ 681,502	$ 1,534,654	$ 351,261	$ 247,121	$ 127,710
22								
23	NET PLANT IN SERVICE	$ 8,371,294	$ 4,349,761	$ 906,011	$ 2,125,643	$ 503,435	$ 348,598	$ 137,847
24								
25	MATERIALS & SUPPLIES - FUEL	$ 260,508	$ 96,853	$ 25,033	$ 83,362	$ 26,092	$ 27,882	$ 1,287
26	MATERIALS & SUPPLIES -LOCAL	$ 170,308	$ 108,482	$ 19,556	$ 30,290	$ 5,016	$ 3	$ 6,961
27	CASH WORKING CAPITAL	$ 44,894	$ 20,357	$ 4,497	$ 12,708	$ 3,603	$ 3,268	$ 460
28	CUSTOMER ADVANCES & DEPOSITS	$ (19,448)	$ (10,815)	$ (4,742)	$ (3,617)	$ -	$ (125)	$ (149)
29	ACCUMULATED DEFERRED INCOME TAXES	$(2,017,383)	$(1,056,796)	$ (219,937)	$ (503,492)	$ (117,621)	$ (82,674)	$ (36,862)
30								
31	TOTAL NET ORIGINAL COST RATE BASE	$ 6,810,174	$ 3,507,841	$ 730,419	$ 1,744,893	$ 420,524	$ 296,952	$ 109,545
32								
33	RATE OF RETURN	2.885%	0.273%	5.699%	6.320%	5.090%	4.125%	1.246%

Schedule WMW-E1

Ameren Missouri
MISSOURI ELECTRIC OPERATIONS
CLASS COST OF SERVICE ALLOCATION STUDY
EQUALIZED CLASS RATES OF RETURN ANALYSIS

	TITLE: SUMMARY EQUAL ROR ($000's)	MISSOURI	RESIDENTIAL	SMALL GENERAL SERV	LARGE G.S. / SMALL PRIMARY	LARGE PRIMARY	LARGE TRANSMISSION	LIGHTING
1	BASE REVENUE	$ 2,955,723	$ 1,455,193	$ 307,783	$ 786,145	$ 203,741	$ 160,644	$ 42,217
2	OTHER REVENUE	$ 68,583	$ 38,657	$ 6,658	$ 15,873	$ 3,763	$ 3,078	$ 555
3	LIGHTING REVENUE	$ -	$ -	$ -	$ -	$ -	$ -	$ -
4	SYSTEM, OFF-SYS SALES & DISP OF ALLOW	$ 360,103	$ 133,880	$ 34,603	$ 115,232	$ 36,067	$ 38,542	$ 1,780
5	RATE REVENUE VARIANCE	$ -	$ -	$ -	$ -	$ -	$ -	$ -
6	TOTAL OPERATING REVENUE	$ 3,384,409	$ 1,627,730	$ 349,044	$ 917,249	$ 243,570	$ 202,264	$ 44,552
7								
8	TOTAL PROD., T&D, CUSTOMER, AND A&G EXP.	$ 1,982,446	$ 898,942	$ 198,571	$ 561,186	$ 159,113	$ 144,313	$ 20,321
9	TOTAL DEPR. AND AMMOR. EXPENSES	$ 461,617	$ 243,153	$ 49,410	$ 116,132	$ 26,841	$ 17,341	$ 8,741
10	REAL ESTATE AND PROPERTY TAXES	$ 142,152	$ 74,466	$ 15,498	$ 35,478	$ 8,288	$ 5,826	$ 2,597
11	INCOME TAXES	$ 203,097	$ 104,613	$ 21,783	$ 52,037	$ 12,541	$ 8,856	$ 3,267
12	PAYROLL TAXES	$ 23,042	$ 11,897	$ 2,428	$ 5,845	$ 1,463	$ 985	$ 425
13	FEDERAL EXCISE TAX	$ -	$ -	$ -	$ -	$ -	$ -	$ -
14	REVENUE TAXES	$ -	$ -	$ -	$ -	$ -	$ -	$ -
15								
16	TOTAL OPERATING EXPENSES	$ 2,812,354	$ 1,333,071	$ 287,689	$ 770,678	$ 208,246	$ 177,320	$ 35,351
17								
18	NET OPERATING INCOME	$ 572,055	$ 294,659	$ 61,355	$ 146,571	$ 35,324	$ 24,944	$ 9,202
19								
20	GROSS PLANT IN SERVICE	$ 14,610,042	$ 7,646,261	$ 1,587,513	$ 3,660,297	$ 854,696	$ 595,719	$ 265,557
21	RESERVES FOR DEPRECIATION	$ 6,238,748	$ 3,296,500	$ 681,502	$ 1,534,654	$ 351,261	$ 247,121	$ 127,710
22								
23	NET PLANT IN SERVICE	$ 8,371,294	$ 4,349,761	$ 906,011	$ 2,125,643	$ 503,435	$ 348,598	$ 137,847
24								
25	MATERIALS & SUPPLIES - FUEL	$ 260,508	$ 96,853	$ 25,033	$ 83,362	$ 26,092	$ 27,882	$ 1,287
26	MATERIALS & SUPPLIES -LOCAL	$ 170,308	$ 108,482	$ 19,556	$ 30,290	$ 5,016	$ 3	$ 6,961
27	CASH WORKING CAPITAL	$ 44,894	$ 20,357	$ 4,497	$ 12,708	$ 3,603	$ 3,268	$ 460
28	CUSTOMER ADVANCES & DEPOSITS	$ (19,448)	$ (10,815)	$ (4,742)	$ (3,617)	$ -	$ (125)	$ (149)
29	ACCUMULATED DEFERRED INCOME TAXES	$ (2,017,383)	$ (1,056,796)	$ (219,937)	$ (503,492)	$ (117,621)	$ (82,674)	$ (36,862)
30								
31	TOTAL NET ORIGINAL COST RATE BASE	$ 6,810,174	$ 3,507,841	$ 730,419	$ 1,744,893	$ 420,524	$ 296,952	$ 109,545
32								
33	RATE OF RETURN	8.400%	8.400%	8.400%	8.400%	8.400%	8.400%	8.400%

Ameren Missouri
MISSOURI ELECTRIC OPERATIONS
CLASS COST OF SERVICE ALLOCATION STUDY
UNBUNDLED ANALYSIS

TITLE: CCOS SUMMARY EQUAL ROR - UNBUNDLED ($000'S)

	MISSOURI	RESIDENTIAL	SMALL GENERAL SERV	LARGE G.S. / SMALL PRIMARY	LARGE PRIMARY	LARGE TRANSMISSION	LIGHTING
Base Revenues							
Customer	$ 315,671	$ 253,300	$ 37,990	$ 16,370	$ 718	$ 47	$ 7,246
Production - Demand	$ 1,319,608	$ 625,318	$ 136,970	$ 376,991	$ 95,728	$ 75,675	$ 8,927
Production - Energy	$ 726,264	$ 269,853	$ 69,712	$ 232,317	$ 72,699	$ 77,560	$ 4,124
Transmission - Demand	$ 97,730	$ 43,333	$ 10,067	$ 29,217	$ 7,572	$ 7,360	$ 182
Distribution - Demand	$ 496,449	$ 263,390	$ 53,044	$ 131,250	$ 27,024	$ 2	$ 21,739
	$ 2,955,723	$ 1,455,193	$ 307,783	$ 786,145	$ 203,741	$ 160,644	$ 42,217