

Exhibit No.:  
 Issues: Cost of Service, Revenue Allocation,  
 and Rate Design  
 Witness: Maurice Brubaker  
 Type of Exhibit: Surrebuttal Testimony  
 Sponsoring Party: Missouri Industrial Energy Consumers  
 Case No.: ER-2012-0166  
 Date Testimony Prepared: September 7, 2012

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 Service Commission

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

In the Matter of Union Electric Company,  
 d/b/a Ameren Missouri's Tariff to Increase  
 Its Annual Revenues for Electric Service

Case No. ER-2012-0166  
 Tariff No. YE-2012-0370

Surrebuttal Testimony and Schedules of

**Maurice Brubaker**

on Cost of Service, Revenue  
 Allocation and Rate Design

On behalf of

**Missouri Industrial Energy Consumers**

September 7, 2012



BRUBAKER & ASSOCIATES, INC.

MIEC Exhibit No. 506  
 Date 9-27-12 Reporter KE  
 File No. ER-2012-0166

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STATE OF MISSOURI

COUNTY OF ST. LOUIS

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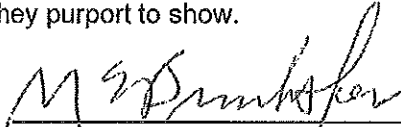
Affidavit of Maurice Brubaker

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

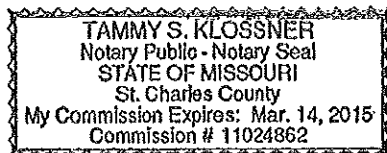
1. My name is Maurice Brubaker. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 16690 Swingley Ridge Road, Suite 140, Chesterfield, Missouri 63017. We have been retained by the Missouri Industrial Energy Consumers in this proceeding on their behalf.

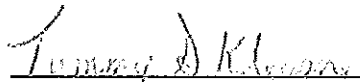
2. Attached hereto and made a part hereof for all purposes are my surrebuttal testimony and schedules which were prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. ER-2012-0166.

3. I hereby swear and affirm that the testimony and schedules are true and correct and that they show the matters and things that they purport to show.

  
Maurice Brubaker

Subscribed and sworn to before me this 6<sup>th</sup> day of September, 2012.



  
Notary Public

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**Case No. ER-2012-0166**

**Tariff No. YE-2012-0370**

**Surrebuttal Testimony of Maurice Brubaker**

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

2    **A     Maurice Brubaker. My business address is 16690 Swingley Ridge Road, Suite 140,**  
3       **Chesterfield, MO 63017.**

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

6    **A     Yes. I have previously filed direct and rebuttal testimony on class cost of service and**  
7       **revenue allocation issues presented in this proceeding and direct testimony on**  
8       **revenue requirement issues.**

9    **Q     ARE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE OUTLINED IN**  
10       **YOUR PRIOR TESTIMONY?**

11   **A     Yes. This information is included in Appendix A to my revenue requirement direct**  
12       **testimony filed July 6, 2012.**

13   **Q     ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

14   **A     This testimony is presented on behalf of the Missouri Industrial Energy Consumers**  
15       **("MIEC").**

**Maurice Brubaker  
Page 1**

1 Introduction and Summary

2 Q WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

3 A The purpose is to address certain cost of service and revenue allocation positions  
4 taken in the rebuttal testimony of other parties.

5 First, I address the position taken by Staff witness Scheperle with respect to  
6 the identification and separate assignment of energy efficiency ("EE")<sup>1</sup> related costs  
7 by customer class. I then respond to certain cost of service and revenue allocation  
8 positions taken by Ameren Missouri witnesses Warwick and Cooper, and by Office of  
9 Public Counsel ("OPC") witness Meisenheimer.

10 I also present a comparison of the results of the cost of service studies that  
11 have been presented in this case.

12 Q WHAT ARE YOUR PRINCIPAL FINDINGS AND RECOMMENDATIONS?

13 A These are as follows:

- 14 1. EE expenditures are different from all other elements of the revenue requirement  
15 in this case, and vary significantly across customer classes.
- 16 2. The responsibility for EE costs ranges from 5% in the case of the Residential  
17 class to "zero" in the case of the Large Transmission Service ("LTS") customer  
18 class.
- 19 3. The LTS customer has exercised the opt-out provisions in the MEEIA statute and  
20 in the Commission's Rules, does not participate in the EE program, and does not  
21 cause Ameren Missouri to incur EE related costs.
- 22 4. Because of this opt-out, and the significant differences among customer classes  
23 in terms of responsibility for EE costs, proposals to allocate any approved  
24 increase on an equal percentage basis (Ameren Missouri), or nearly an equal  
25 percentage basis (Commission Staff) would essentially deny the benefit of the  
26 opt-out provision to the LTS customer. **The increase to the LTS customer must**  
27 **be at least 4 percentage points less than the system average increase in**  
28 **order to recognize the opt-out.**

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<sup>1</sup>As used in this testimony, EE refers to the investments related to the Missouri Energy Efficiency Investment Act ("MEEIA") as well as to those pre-MEEIA costs that are being amortized to income over a period of time.

- 1 5. In response to Staff's disagreement with my revenue allocation approach, I have  
2 produced a class cost of service study that excludes the EE expenditures. The  
3 results of this study are comparable to the results of the study contained in my  
4 direct testimony that included the EE revenue requirement components. The  
5 conclusion to be drawn from these studies is that the rate spread  
6 recommendation I made in my direct testimony is supported by cost of service  
7 studies, recognizes the unique nature of the EE expenditures, and appropriately  
8 implements the opt-out provision.
- 9 6. OPC's cost of service studies should be rejected because they utilize methods  
10 that have recently been rejected by this Commission and contain other  
11 inappropriate allocations.
- 12 7. The method the Staff and MIEC have used to classify production operation and  
13 maintenance ("O&M") expenses between fixed expenses and variable expenses  
14 is appropriate and should be adopted.
- 15 8. Mr. Cooper's "illustrative" revenue requirement shift is not supported and should  
16 not be adopted.

17 **Identification and Specific Assignment of**  
18 **Energy Efficiency Related Revenue Requirements**

19 Q WHAT IS MR. SCHEPERLE'S POSITION ON YOUR HANDLING OF EE REVENUE  
20 REQUIREMENTS?

21 A Although Mr. Scheperle does not disagree with the class-specific assignments of  
22 costs related to EE, he nevertheless disagrees with how I have specifically assigned  
23 the EE related revenue requirement to customer classes as a part of my revenue  
24 allocation recommendation. He believes it is inappropriate to identify, and treat  
25 separately, a particular item that is included in a cost of service study.

26 Q HOW DO YOU RESPOND TO MR. SCHEPERLE?

27 A First, if we were setting rates so that each class earned the system average rate of  
28 return (i.e., its cost of service), there would be no issue. All appropriate costs would  
29 be assigned and the rates would properly reflect those costs. The primary reason for

1 not doing so is gradualism, in order to avoid too large of an impact on classes earning  
2 below the system average rate of return, namely the Residential class and the  
3 Lighting class.

4 **Q MR. SCHEPERLE ARGUES THAT IF YOU SEPARATELY TREAT ONE REVENUE**  
5 **REQUIREMENT ITEM, NAMELY EE COSTS, THAT IT WOULD BE APPROPRIATE**  
6 **TO SEPARATELY TREAT OTHER REVENUE REQUIREMENT ITEMS, WHICH HE**  
7 **ILLUSTRATES USING FUEL COST. DO YOU AGREE?**

8 **A** No. Fuel costs, along with costs such as generation and transmission costs, are  
9 incurred to provide electric service to all customers. There is no logic for separating  
10 out any of these items like there is for EE costs.

11 **Q WHY ARE EE COSTS DIFFERENT AND WHY DO THEY REQUIRE SEPARATE**  
12 **ASSIGNMENT?**

13 **A** EE costs are not costs incurred to provide electric service in the conventional sense  
14 of the word. Rather, EE costs are those costs which are incurred, it could be said, "to  
15 not provide electric service." In other words, the EE costs are incurred to provide  
16 certain customers (who qualify under Ameren Missouri's EE programs) with devices  
17 and/or incentives which enable them to use less electricity while achieving the same  
18 degree of satisfaction, comfort, or level of production. In fact, these programs and  
19 costs are so different from other electric utility costs that legislation, extensive  
20 rulemaking and a separate proceeding were required in order to make these  
21 programs practical and capable of implementation.

22 As I noted in my rebuttal testimony, the responsibility for these costs varies  
23 significantly across customer classes. Because residential programs are the most

1 expensive to provide, and because of the sheer number of residential customers, the  
2 EE related revenue requirement associated with the Residential class is 5% of its  
3 revenues. The revenue requirement associated with these costs for the Small  
4 General Service ("SGS") class is 2.2% of its revenues, for the Large General Service  
5 ("LGS")/Small Primary Service ("SPS") class is 4.3% of its revenues and for the Large  
6 Power Service ("LPS") class is 4% of its revenues. In marked contrast, the LTS class  
7 bears absolutely no cost responsibility for these programs. Operating in accordance  
8 with the opt-out provision of the Commission Rules, the LTS customer has chosen to  
9 fund its own EE activities, and not rely upon Ameren Missouri's general programs for  
10 funding. Accordingly, the cost responsibility of the LTS class for EE programs is  
11 "zero."

12 **Q WHAT ARE THE CONSEQUENCES IF THE INCREASE WERE TO BE APPLIED**  
13 **AS AN EQUAL PERCENTAGE (AS PROPOSED BY AMEREN MISSOURI) OR AS**  
14 **A NEARLY EQUAL PERCENTAGE (AS PROPOSED BY STAFF)?**

15 **A** Both of these approaches would ignore the nature of the EE costs and, with respect  
16 to the LTS customer, would essentially amount to a repudiation of the opt-out  
17 provision of the statute and the Commission Rules. As a result of implicitly assigning  
18 EE costs to the LTS customer, the LTS customer would essentially be required to  
19 involuntarily fund a program for which it receives no benefit and has opted out of the  
20 program in compliance with the Commission Rules.



1 Q HAVE YOU PREPARED ANY ANALYSIS TO ADDRESS MR. SCHEPERLE'S  
2 CONCERN ABOUT SEPARATELY ASSIGNING EE COSTS IN THE REVENUE  
3 ALLOCATION STEP WHEN THOSE COSTS HAVE BEEN INCLUDED IN THE  
4 CLASS COST OF SERVICE STUDY?

5 A Yes. I have prepared Schedule MEB-COS-SUR-1.

6 Q PLEASE EXPLAIN THIS SCHEDULE.

7 A Schedule MEB-COS-SUR-1 is identical to the cost of service study presented in my  
8 direct testimony as Schedule MEB-COS-4, with a single exception, namely that  
9 Schedule MEB-COS-SUR-1 excludes all of the EE related revenue requirement  
10 components.

11 Q HOW DO THE RESULTS COMPARE TO THE COST OF SERVICE STUDY WHICH  
12 YOU ATTACHED AS SCHEDULE MEB-COS-4 TO YOUR DIRECT TESTIMONY?

13 A The results are generally the same. That is, the Residential and Lighting classes  
14 have below average rates of return while all other classes have above average rates  
15 of return.<sup>2</sup>

16 Q HOW DO THE REVENUE NEUTRAL ADJUSTMENTS AT PRESENT RATES FOR  
17 THIS STUDY FORMAT COMPARE TO WHAT YOU CALCULATED EARLIER AND  
18 SHOWED ON SCHEDULE MEB-COS-5 TO YOUR DIRECT TESTIMONY?

19 A The results are generally the same. Customer classes earning in excess of their cost  
20 of service (namely SGS, LGS/SPS, LPS and LTS) continue to do so, and customer

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<sup>2</sup>The details of the cost of service study are in the attachment to Schedule MEB-COS-SUR-1.

1 classes earning below their cost of service (Residential and Lighting) continue to be  
2 below their cost of service.

3 **Q WHAT IS THE OVERALL CONCLUSION TO BE DRAWN FROM THESE TWO**  
4 **SURREBUTTAL EXHIBITS?**

5 A The overall conclusion is this: The revenue increase allocation that I proposed in my  
6 direct testimony is consistent with cost of service principles, respects the opt-out  
7 provision, particularly as it applies to Rate LTS, and is appropriate.

8 **Q PLEASE EXPLAIN THE BASIS FOR THIS CONCLUSION.**

9 A Referring again to Schedule MEB-COS-SUR-2, note that the increase required to  
10 move the Residential class to parity (excluding EE costs) is 8.2% before any  
11 increases awarded to Ameren Missouri. This is far higher than the modest 2%  
12 adjustment I proposed. Note also that the decreases appropriate for the business  
13 classes (SGS, LGS/SPS, LPS and LTS) are all more than the downward adjustment  
14 of 1.75% that I proposed.

15 Accordingly, whether revenue allocation proposals are tested against a class  
16 cost of service study that includes EE expenditures, or whether those revenue  
17 allocation proposals are tested against class cost of service results that do not  
18 include EE revenue requirements, the conclusion is the same. Namely: (1) a 2.0%  
19 revenue neutral increase to the Residential and Lighting classes, accompanied by an  
20 offsetting 1.75% decrease to all other customer classes, (2) plus a specific  
21 assignment of the EE revenue requirement, and (3) an equal percentage increase of  
22 any additional revenues (above the EE increase) on an equal percentage basis, is  
23 appropriate.

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1    **Q     PLEASE EXPLAIN WHO BENEFITS FROM THE EE PROGRAMS?**

2    A     In the short-run, only those customers who participate in the programs have the  
3           possibility of being better-off. They would be better off only if the savings that they  
4           experience in the electric bill is more than the sum of their directly incurred costs plus  
5           the EE charges that they would pay. Customers who do not participate, and who do  
6           not opt-out, clearly would be worse off because they are being charged for EE costs,  
7           yet receiving no direct benefit.

8    **Q     WHAT ARE THE EXPECTATIONS IN THE LONG-RUN?**

9    A     Please see Schedule MEB-COS-SUR-3 attached to my testimony. This is Ameren  
10          Missouri's cost-effectiveness test summary which presents the results of the standard  
11          cost-effectiveness measures for EE programs. The impact on rates is determined by  
12          the ratepayer impact measure ("RIM").

13   **Q     WHAT IS THE BASIS OF THE RIM TEST?**

14   A     Under the RIM test, the benefits are the costs avoided as a result of implementing the  
15          EE programs. The costs consist of incentives paid to participants, other costs  
16          incurred by the utility, and the loss in revenues as a result of diminished consumption.  
17          Costs also include the cost to administer, deliver and evaluate the EE program.

18   **Q     HOW SHOULD THE RESULTS OF THE RIM TEST BE INTERPRETED?**

19   A     Under the RIM test, a ratio of less than 1.0 means that implementation of the program  
20          will cause rates to be higher than they would have been had the program not been  
21          implemented and instead the utility had pursued supply-side resources. Note that  
22          nearly all the programs have the effect of increasing rates.

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1 In particular, the residential programs have a total RIM of 0.68, the business  
2 programs have a total RIM of 0.79, and the overall composite portfolio has a RIM of  
3 0.72.

#### 4 **Other Issues Raised By Staff**

5 Q MR. SCHEPERLE BELIEVES THAT ONLY THE STAFF APPROPRIATELY  
6 ADJUSTED CLASS DEMAND AND ENERGY FOR WEATHER AND FOR THE  
7 ANTICIPATED AFFECTS OF EE. WHAT WOULD BE THE IMPACT OF MAKING  
8 THESE ADJUSTMENTS?

9 A As Mr. Scheperle states on page 6 of his testimony with respect to the EE  
10 adjustment, "...this would not result in a significant variation." The difference in the  
11 weather adjustment also does not produce a significant difference. This is clear from  
12 Table 1 on page 3 of Mr. Scheperle's rebuttal testimony where he compares the class  
13 allocation factors for the various methods. Note that the allocation factors for every  
14 class under Staff's version of BIP, Ameren Missouri's A&E 4NCP allocation, MIEC's  
15 A&E 4NCP allocation and OPC's A&E 4NCP allocation are essentially the same  
16 number. Accordingly, any differences created by these adjustments would be  
17 insignificant and can be disregarded for purposes of this case.

#### 18 **OPC's Studies**

19 Q IN YOUR REBUTTAL TESTIMONY, YOU ADDRESSED OPC'S COST OF  
20 SERVICE STUDIES. DO YOU HAVE ANY FURTHER RESPONSE TO  
21 MS. MEISENHEIMER'S REBUTTAL TESTIMONY?

22 A Yes. While in her rebuttal testimony she may have corrected some minor errors, the  
23 basic studies presented by OPC continue to rely upon inappropriate allocation

1 methodologies including a generation allocation methodology previously rejected by  
2 this Commission on several occasions. OPC's allocation of the margin from  
3 off-system sales similarly has been previously rejected by this Commission on several  
4 occasions. OPC's allocation of the customer component of the distribution system is  
5 at odds with accepted procedures, and is an allocation method that I have never  
6 before seen employed. And, OPC's allocation of EE costs is at odds with the  
7 stipulation OPC signed in the MEEIA case. OPC's studies should be rejected.

8 **Reply to Ameren Missouri**

9 Q HOW DO YOU RESPOND TO AMEREN MISSOURI WITNESS WARWICK'S  
10 TESTIMONY AT PAGE 5 OF HIS REBUTTAL CONCERNING THE  
11 CLASSIFICATION OF CERTAIN NON-LABOR COSTS IN THE PRODUCTION  
12 O&M ACCOUNTS?

13 A Mr. Warwick provides only a very general response. He cites some particular items  
14 that he says could be variable, but does not provide any quantification of them. He is  
15 critical of my statement that the "hours of operation" used for scheduling maintenance  
16 is indicative of the fact that these costs are fixed because they occur on a periodic  
17 basis. Instead, he argues that hours of operation would be comparable to kWh. But,  
18 Ameren Missouri does not schedule its major maintenance on the basis of kWh  
19 generated by its units. Maintenance is performed to maintain plant efficiency and  
20 reliability and is not scheduled as a function of the number of kWh generated.  
21 Rather, the maintenance intervals are essentially fixed intervals of time as dictated by  
22 the calendar, and not by kWh.

1 Q IS THE CLASSIFICATION OF PRODUCTION OF O&M EXPENSE THAT YOU AND  
2 MR. SCHEPERLE HAVE EMPLOYED A METHOD ACCEPTED IN THE  
3 INDUSTRY?

4 A Yes. For example, in the current and previous Kansas City Power & Light Company  
5 rate cases (Case Nos. ER-2010-0355 and ER-2012-0174); the currently pending and  
6 previous KCP&L Greater Missouri Operations Company rate cases (Case Nos. ER-  
7 2010-0356 and ER-2012-0175); and in the previous Empire District Electric Company  
8 rate case (Case No. ER-2011-0004), where a class cost of service study was filed,  
9 the utilities (with de minimis exceptions) proposed the identical classification of  
10 production of O&M expense between fixed and variable categories that I have  
11 proposed in this case. It is also the method that the Commission Staff employed in  
12 the previously referenced Kansas City Power & Light Company rate cases when  
13 making allocations between Kansas and Missouri.

14 Q AT PAGE 10 OF HIS TESTIMONY, AMEREN WITNESS COOPER STATES THAT  
15 IF NON-RESIDENTIAL CLASSES RECEIVE NON-UNIFORM INCREASES, THEN  
16 THERE IS A POTENTIAL FOR RATE MIGRATION. ARE MR. COOPER'S  
17 CONCERNS VALID IN THE CONTEXT OF YOUR PROPOSAL?

18 A No, I do not believe so. No customer is going to switch to the LTS rate, because no  
19 other customer is eligible to take service under this rate. The only possibility for  
20 migration under my proposal is from the LGS rate to SGS rate. The difference in the  
21 increase here is about 2 percentage points. But, the SGS rate is more than 20%  
22 higher than the LGS rate, so I do not think it is reasonable to believe that there would  
23 be switching from the lower price rate to the higher price rate. Accordingly, I do not

1 believe that there is any concern about rate switching under my revenue allocation  
2 proposal.

3 **Q HAVE YOU REVIEWED THE TESTIMONY OF AMEREN MISSOURI WITNESS**  
4 **COOPER AT PAGE 11 WITH RESPECT TO THE IMPACT OF RATE INCREASES**  
5 **ON CUSTOMERS?**

6 **A** Yes. At this point in his testimony, he quantifies, but does not support or recommend,  
7 what would happen if 1% of the Residential class increase were transferred to other  
8 classes.

9 **Q HOW DO YOU RESPOND TO THIS TESTIMONY OF MR. COOPER?**

10 **A** First, I would note that I am pleased to see that he does not recommend that this  
11 action be taken. It is not clear why he raises it or how it is supposed to be viewed,  
12 but it obviously is not a recommendation by Ameren Missouri.

13 **Q WOULD SUCH A "SHIFT" IN REVENUES BE CONSISTENT WITH COST OF**  
14 **SERVICE EVIDENCE?**

15 **A** No, far from it. The cost of service evidence presented by Ameren Missouri, by the  
16 Commission Staff and by MIEC all clearly demonstrate that the LPS and LTS  
17 customers are providing a higher rate of return to the utility than is the Residential  
18 class. Accordingly, any shift of any part of the rate increase away from the residential  
19 customers to customers in any of these other customer classes would be contrary to  
20 cost of service principles and evidence, and would be significantly in conflict with the  
21 central regulatory principle that the causer of the cost should pay the cost.

1    **Comparison of Results**

2    Q     HAVE YOU COMPILED A COMPARISON OF THE REVENUE NEUTRAL  
3           PERCENTAGE CHANGE IN CLASS REVENUES REQUIRED TO EQUALIZE RATE  
4           OF RETURN FOR THE VARIOUS STUDIES PRESENTED IN THIS CASE?

5    A     This appears on Schedule MEB-COS-SUR-4. The information is presented both in a  
6           tabular and a graphical form. This specific information displayed is the percentage  
7           increase, at current rate levels, required to move each class to its cost of service.  
8           Page 1 of Schedule MEB-COS-SUR-4 displays the results for Ameren Missouri's  
9           study, the Staff's study, the MIEC study and the OPC study.

10          Page 2 of the schedule eliminates the OPC study from the comparison  
11          because it uses several methods that the Commission has previously rejected and,  
12          as discussed earlier, employs a treatment of EE expense that is contrary to the  
13          method prescribed in the stipulation in the MEEIA case to which OPC was a  
14          signatory.

15   Q     DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

16   A     Yes, it does.

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**AMEREN MISSOURI**  
Case No. ER-2012-0166

**Electric Cost of Service Allocation Study**  
at Present Rates  
**Includes MIEC Classification Adjustments and MIEC's Alternative Income Tax Calculation**  
with Energy Efficiency Costs Removed  
(Dollars in Thousands)

Line	Description	Missouri Total (1)	Residential (2)	Small Gen. Service (3)	Large G.S./ Sm Primary (4)	Large Primary (5)	Large Transmission (6)	Lighting (7)
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	Total Prod, T&D, Cust and A&G Expense	\$ 1,901,528	\$ 859,971	\$ 194,420	\$ 535,842	\$ 150,943	\$ 139,809	\$ 20,543
8	Total Depreciation and Amortization Expenses	447,077	236,756	48,758	109,943	25,538	17,341	8,741
9	Real Estate and Property Taxes	142,152	74,466	15,498	35,478	8,288	5,826	2,597
10	Income Taxes: At Present Rates	96,527	13,330	16,036	50,405	10,879	5,693	183
11	Payroll Taxes	23,042	11,897	2,428	5,845	1,463	985	425
12	Federal Excise Taxes							
13	Revenue Taxes							
14	Total Operating Expenses	\$ 2,610,326	\$ 1,196,420	\$ 277,140	\$ 737,513	\$ 197,110	\$ 169,653	\$ 32,489
15	Net Operating Income	\$ 398,518	\$ 146,222	\$ 52,174	\$ 143,441	\$ 32,539	\$ 19,915	\$ 4,226
16	Gross Plant in Service	\$ 14,532,731	\$ 7,612,245	\$ 1,584,049	\$ 3,627,391	\$ 847,768	\$ 595,719	\$ 265,557
17	Reserves for Depreciation	6,238,748	3,296,500	681,502	1,534,854	351,261	247,121	127,710
18	Net Plant in Service	\$ 8,293,983	\$ 4,315,746	\$ 902,547	\$ 2,092,738	\$ 496,507	\$ 348,598	\$ 137,847
19	Materials & Supplies - Fuel	\$ 260,508	\$ 96,853	\$ 25,033	\$ 83,362	\$ 26,092	\$ 27,882	\$ 1,287
20	Materials & Supplies - Local	170,308	108,482	19,536	30,290	5,016	3	6,961
21	Cash Working Capital	44,894	20,303	4,590	12,651	3,564	3,301	485
22	Customer Advances & Deposits	(19,448)	(10,815)	(4,742)	(3,617)	-	(125)	(149)
23	Accumulated Deferred Income Taxes	(2,017,383)	(1,056,796)	(219,937)	(503,892)	(117,621)	(82,674)	(36,862)
24	Total Net Original Cost Rate Base	\$ 6,732,863	\$ 3,473,773	\$ 727,048	\$ 1,711,931	\$ 413,557	\$ 296,985	\$ 109,570
25	Rate of Return	5.919%	4.209%	7.176%	8.379%	7.868%	6.706%	3.857%

AMEREN MISSOURI  
Case No. ER-2012-0166

Electric Cost of Service Allocation Study  
at Present Rates  
Includes MIEC Classification Adjustments and MIEC's Alternative Income Tax Calculation  
with Energy Efficiency Costs Removed  
(Dollars in Thousands)

TITLE: NET ORIGINAL COST - PAGE 1

LINE #	ACCT #	ITEM	ALLOCATION BASIS	MISSOURI TOTAL (1)	RESIDENTIAL (2)	GEN SERVICE (3)	LARGE G.S./ SM PRIMARY (4)	LARGE PRIMARY (5)	LARGE TRANSMISSION (6)	LIGHTING (7)
1		PRODUCTION	A.F.1	\$ 4,934,309	\$ 2,313,678	\$ 525,577	\$ 1,404,561	\$ 356,515	\$ 298,033	\$ 35,745
2		TRANSMISSION								
3		LINES	A.F.2	\$ 158,705	\$ 70,339	\$ 16,424	\$ 47,321	\$ 12,271	\$ 12,077	\$ 273
4		SUBSTATION	A.F.3	\$ 320,495	\$ 142,045	\$ 33,168	\$ 95,562	\$ 24,781	\$ 24,388	\$ 551
5										
6										
7		TOTAL TRANSMISSION		\$ 479,200	\$ 212,384	\$ 49,593	\$ 142,883	\$ 37,052	\$ 36,465	\$ 824
8		DISTRIBUTION PLANT								
9										
10										
11	360	SUBSTATION LAND	A.F.8	\$ 19,560	\$ 9,881	\$ 2,159	\$ 5,889	\$ 1,392	\$ -	\$ 140
12	321	OTHER LAND	A.F.5	\$ 12,525	\$ 5,520	\$ 1,410	\$ 3,846	\$ 658	\$ -	\$ 91
13										
14	361-362	SUBSTATIONS	A.F.8	\$ 564,299	\$ 287,937	\$ 62,274	\$ 169,902	\$ 40,148	\$ -	\$ 4,039
15										
16	364	POLES TOWERS FIXTURES								
17		CUSTOMER	A.F.4	\$ 38,260	\$ 31,838	\$ 4,405	\$ 309	\$ 2	\$ -	\$ 1,706
18		HV	A.F.5a	\$ 33,913	\$ 17,302	\$ 3,742	\$ 10,205	\$ 2,413	\$ -	\$ 251
19		PRIMARY	A.F.5b	\$ 65,148	\$ 33,912	\$ 7,334	\$ 20,003	\$ 3,424	\$ -	\$ 476
20		SECONDARY	A.F.6	\$ 33,215	\$ 15,975	\$ 4,320	\$ 8,639	\$ -	\$ -	\$ 280
21		LIGHTING-DIRECT		\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
22										
23		SUBTOTAL		\$ 170,537	\$ 103,028	\$ 19,802	\$ 39,156	\$ 5,898	\$ -	\$ 2,713
24										
25	365	OVERHEAD CONDUCTOR								
26		CUSTOMER	A.F.4	\$ 321,741	\$ 267,736	\$ 37,045	\$ 2,800	\$ 19	\$ -	\$ 14,342
27		HV	A.F.5a	\$ 101,932	\$ 52,005	\$ 11,247	\$ 30,674	\$ 7,251	\$ -	\$ 755
28		PRIMARY	A.F.5b	\$ 352,469	\$ 183,474	\$ 39,681	\$ 109,219	\$ 18,522	\$ -	\$ 2,574
29		SECONDARY	A.F.6	\$ 18,505	\$ 11,129	\$ 2,407	\$ 4,813	\$ -	\$ -	\$ 155
30										
31		SUBTOTAL		\$ 794,647	\$ 514,343	\$ 90,380	\$ 146,306	\$ 25,792	\$ -	\$ 17,827
32										
33	366	UNDERGROUND CONDUIT								
34		CUSTOMER	A.F.4	\$ 130,418	\$ 108,527	\$ 15,016	\$ 1,054	\$ 8	\$ -	\$ 5,814
35		HV	A.F.5a	\$ 5,432	\$ 2,771	\$ 589	\$ 1,635	\$ 386	\$ -	\$ 40
36		PRIMARY	A.F.5b	\$ 39,132	\$ 20,370	\$ 4,406	\$ 12,015	\$ 2,056	\$ -	\$ 286
37		SECONDARY	A.F.6	\$ 17,260	\$ 10,380	\$ 2,245	\$ 4,489	\$ -	\$ -	\$ 146
38										
39		SUBTOTAL		\$ 192,243	\$ 142,049	\$ 22,266	\$ 19,192	\$ 2,450	\$ -	\$ 6,285
40										
41	367	UNDERGROUND CONDUCTORS								
42		CUSTOMER	A.F.4	\$ 272,881	\$ 227,077	\$ 31,419	\$ 2,205	\$ 16	\$ -	\$ 12,164
43		HV	A.F.5a	\$ 11,355	\$ 5,798	\$ 1,254	\$ 3,420	\$ 808	\$ -	\$ 84
44		PRIMARY	A.F.5b	\$ 81,879	\$ 42,621	\$ 9,218	\$ 25,139	\$ 4,303	\$ -	\$ 598
45		SECONDARY	A.F.6	\$ 36,115	\$ 21,720	\$ 4,697	\$ 9,393	\$ -	\$ -	\$ 305
46										
47		SUBTOTAL		\$ 402,240	\$ 297,216	\$ 46,589	\$ 40,157	\$ 5,127	\$ -	\$ 13,151

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(Dollars in Thousands)

TITLE: NET ORIGINAL COST - PAGE 2

LINE #	ACCT #	ITEM	ALLOCATION BASIS	MISSOURI TOTAL (1)	RESIDENTIAL (2)	SMALL GEN SERVICE (3)	LARGE G.S./ SM PRIMARY (4)	LARGE PRIMARY (5)	LARGE TRANSMISSION (6)	LIGHTING (7)
1										
2										
3	368	LINE TRANSFORMERS	A.F.15	\$ 162,193	\$ 141,274	\$ 19,547	\$ 1,372	\$ -	\$ -	\$ -
4		CUSTOMER	A.F.6	\$ 122,013	\$ 73,379	\$ 15,870	\$ 31,734	\$ -	\$ -	\$ 1,029
5		SECONDARY								
6										
7		SUBTOTAL		\$ 284,206	\$ 214,653	\$ 35,418	\$ 33,106	\$ -	\$ -	\$ 1,029
8										
9	369-1	OVERHEAD SERVICES								
10		CUSTOMER	A.F.15	\$ (18,307)	\$ (15,945)	\$ (2,206)	\$ (155)	\$ -	\$ -	\$ -
11		SECONDARY	A.F.16	\$ (26,619)	\$ (18,489)	\$ (3,432)	\$ (4,888)	\$ -	\$ -	\$ -
12										
13		SUBTOTAL		\$ (44,926)	\$ (34,444)	\$ (5,639)	\$ (4,843)	\$ -	\$ -	\$ -
14										
15	369-2	UNDERGROUND SERVICES								
16		CUSTOMER	A.F.15	\$ 40,156	\$ 34,977	\$ 4,840	\$ 340	\$ -	\$ -	\$ -
17		SECONDARY	A.F.16	\$ 2,302	\$ 1,600	\$ 297	\$ 405	\$ -	\$ -	\$ -
18										
19		SUBTOTAL		\$ 42,458	\$ 36,576	\$ 5,138	\$ 745	\$ -	\$ -	\$ -
20										
21	370	METERS	A.F.7	\$ 63,982	\$ 41,849	\$ 12,938	\$ 8,430	\$ 662	\$ 46	\$ 58
22		CUSTOMER INSTALLATIONS	DIRECT	\$ 6	\$ -	\$ -	\$ 3	\$ 3	\$ -	\$ -
23										
24	373	STREET LIGHTING	A.F.29	\$ 49,887	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 49,887
25										
26		SUBTOTAL - CUSTOMER DIST PLANT		\$ 1,011,326	\$ 837,333	\$ 123,004	\$ 16,154	\$ 706	\$ 46	\$ 34,083
27		- DEMAND DIST PLANT		\$ 1,540,338	\$ 782,375	\$ 169,728	\$ 445,735	\$ 81,364	\$ -	\$ 61,137
28										
29		DISTRIBUTION TOTAL		\$ 2,551,664	\$ 1,619,707	\$ 292,732	\$ 461,890	\$ 82,070	\$ 46	\$ 95,220
30										
31		GENERAL PLANT	A.F.35	\$ 281,976	\$ 145,595	\$ 29,711	\$ 71,526	\$ 17,898	\$ 12,052	\$ 5,195
32				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
33				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
34				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
35				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
36				\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
37		SUBTOTAL PROD, T&D, GEN, COMMON PLANT		\$ 8,247,150	\$ 4,291,564	\$ 897,613	\$ 2,080,858	\$ 493,535	\$ 346,596	\$ 136,984
38										
39		INTANGIBLE PLANT		\$ 48,191	\$ 24,883	\$ 5,078	\$ 12,224	\$ 3,059	\$ 2,060	\$ 888
40		EE REGULATORY ASSET	EE tab	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
41		REGULATORY ACCOUNT (PENSION /	A.F.35	\$ (1,358)	\$ (701)	\$ (143)	\$ (345)	\$ (86)	\$ (58)	\$ (25)
42										
43		TOTAL NET PLANT		\$ 8,293,983	\$ 4,315,746	\$ 902,547	\$ 2,092,738	\$ 496,507	\$ 348,598	\$ 137,847

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(Dollars in Thousands)

TITLE: NET ORIGINAL COST - PAGE 3

LINE #	ACCT #	ITEM	ALLOCATION BASIS	MISSOURI TOTAL (1)	RESIDENTIAL (2)	SMALL GEN SERVICE (3)	LARGE G.S./ SM PRIMARY (4)	LARGE PRIMARY (5)	LARGE TRANSMISSION (6)	LIGHTING (7)
1		MATERIALS & SUPPLIES - FUEL	A.F.11	\$ 260,508	\$ 96,853	\$ 25,033	\$ 83,362	\$ 26,092	\$ 27,882	\$ 1,287
2		MATERIALS & SUPPLIES - LOCAL	A.F.18	\$ 170,308	\$ 108,482	\$ 19,556	\$ 30,290	\$ 5,016	\$ 3	\$ 6,961
3		CASH WORKING CAPITAL	A.F.37	\$ 44,894	\$ 20,303	\$ 4,590	\$ 12,651	\$ 3,564	\$ 3,301	\$ 485
4		CUSTOMER ADVANCES & DEPOSITS	A.F.12	\$ (19,448)	\$ (10,815)	\$ (4,742)	\$ (3,617)	\$ -	\$ (125)	\$ (149)
5		ACCUM DEFERRED INCOME TAXES	A.F.19	\$ (2,017,383)	\$ (1,056,796)	\$ (219,937)	\$ (503,492)	\$ (117,621)	\$ (82,674)	\$ (36,882)
6										
7		TOTAL NET ORIGINAL COST RATE BASE		\$ 6,732,963	\$ 3,473,773	\$ 727,048	\$ 1,711,931	\$ 413,557	\$ 296,985	\$ 109,570

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OPERATING EXPENSES - PAGE 1																								
TITLE	LINE #	ACCT #	ALLOCATION BASIS	TOTAL MISSOURI			RESIDENTIAL			SMALL GEN. SERVICE			LARGE G. & S.M. PRIMARY			LARGE PRIMARY			LARGE TRANSMISSION			LIGHTING		
				LABOR (1)	OTHER (2)	TOTAL (3)	LABOR (4)	OTHER (5)		LABOR (6)	OTHER (7)		LABOR (8)	OTHER (9)		LABOR (10)	OTHER (11)		LABOR (12)	OTHER (13)		LABOR (14)	OTHER (15)	
OPERATING EXPENSES																								
PRODUCTION																								
	1		A.F.1/EE	\$ 186,454	\$ 169,778	\$ 356,232	\$ 82,124	\$ 79,615		\$ 20,825	\$ 18,084		\$ 55,921	\$ 48,328		\$ 14,194	\$ 12,267		\$ 11,866	\$ 10,255		\$ 1,423	\$ 1,200	
	2		A.F.11	\$ 6,210	\$ 941,987	\$ 948,198	\$ 2,309	\$ 350,215		\$ 597	\$ 80,518		\$ 1,987	\$ 301,433		\$ 622	\$ 84,346		\$ 685	\$ 100,821		\$ 31	\$ 4,655	
	3																							
	4		SUBTOTAL	\$ 202,664	\$ 1,111,765	\$ 1,314,430	\$ 84,433	\$ 429,830		\$ 21,522	\$ 108,602		\$ 57,908	\$ 349,761		\$ 14,816	\$ 106,613		\$ 12,531	\$ 111,075		\$ 1,454	\$ 5,865	
SYSTEM REVENUE CREDITS																								
OFF-SYSTEM SALES																								
	10		A.F.11	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -	
	11		A.F.2	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -	
	12			\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -	
	13			\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -	
	14		SUBTOTAL	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -	
TRANSMISSION																								
	16		A.F.2	\$ 393	\$ 5,042	\$ 5,435	\$ 174	\$ 2,235		\$ 41	\$ 522		\$ 117	\$ 1,503		\$ 30	\$ 350		\$ 30	\$ 384		\$ 1	\$ 9	
	17		A.F.3	\$ 5,591	\$ 41,379	\$ 46,971	\$ 2,478	\$ 18,339		\$ 579	\$ 4,292		\$ 1,667	\$ 12,339		\$ 432	\$ 3,199		\$ 425	\$ 3,149		\$ 10	\$ 71	
	18																							
	19		SUBTOTAL	\$ 5,885	\$ 46,421	\$ 52,406	\$ 2,652	\$ 20,474		\$ 619	\$ 4,804		\$ 1,784	\$ 13,841		\$ 483	\$ 3,589		\$ 455	\$ 3,532		\$ 10	\$ 80	
TOTAL TRANSMISSION EXPENSES																								
DISTRIBUTION OPERATING EXPENSES																								
	26		A.F.8	\$ 2,785	\$ 1,469	\$ 4,254	\$ 1,421	\$ 750		\$ 307	\$ 162		\$ 839	\$ 442		\$ 198	\$ 105		\$ -	\$ -		\$ 20	\$ 11	
	27																							
	28		583-1 OVERHEAD LINES																					
	29		CUSTOMER	\$ 1,019	\$ 281	\$ 1,300	\$ 846	\$ 241		\$ 117	\$ 33		\$ 8	\$ 2		\$ 0	\$ 0		\$ -	\$ -		\$ 48	\$ 14	
	30		HV	\$ 405	\$ 116	\$ 521	\$ 207	\$ 59		\$ 45	\$ 13		\$ 122	\$ 35		\$ 29	\$ 8		\$ -	\$ -		\$ 3	\$ 1	
	31		PRIMARY	\$ 1,245	\$ 355	\$ 1,600	\$ 648	\$ 185		\$ 140	\$ 40		\$ 382	\$ 109		\$ 85	\$ 19		\$ -	\$ -		\$ 9	\$ 3	
	32		SECONDARY	\$ 75	\$ 21	\$ 96	\$ 38	\$ 11		\$ 10	\$ 3		\$ 26	\$ 7		\$ -	\$ 0		\$ -	\$ -		\$ 1	\$ 0	
	33		LIGHTING-DIRECT	\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -	
	34			\$ -	\$ -	\$ -	\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -	
	35		SUBTOTAL	\$ 2,744	\$ 763	\$ 3,527	\$ 1,738	\$ 466		\$ 312	\$ 89		\$ 538	\$ 154		\$ 94	\$ 27		\$ -	\$ -		\$ 61	\$ 17	
583-2 OVERHEAD TRANSFORMERS																								
	37		CUSTOMER	\$ 1,568	\$ 244	\$ 1,812	\$ 1,366	\$ 213		\$ 189	\$ 29		\$ 13	\$ 2		\$ -	\$ -		\$ -	\$ -		\$ -	\$ -	
	38		SECONDARY	\$ 1,178	\$ 184	\$ 1,363	\$ 709	\$ 111		\$ 153	\$ 24		\$ 307	\$ 48		\$ -	\$ -		\$ -	\$ -		\$ 10	\$ 2	
	39																							
	40		SUBTOTAL	\$ 2,747	\$ 428	\$ 3,175	\$ 2,075	\$ 323		\$ 342	\$ 53		\$ 320	\$ 50		\$ -	\$ -		\$ -	\$ -		\$ 10	\$ 2	
	41																							

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TITLE: OPERATING EXPENSES - PAGE 2

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OPERATING EXPENSES - PAGE 3																			
LINE #	ACCT #	ITEM	ALLOCATION BASIS	TOTAL MISSOURI		RESIDENTIAL		SMALL GEN. SERVICE		LARGE G.S./SM. PRIMARY		LARGE PRIMARY		LARGE TRANSMISSION		LIGHTING			
				LABOR (1)	OTHER (2)	TOTAL (3)	LABOR (4)	OTHER (5)	LABOR (6)	OTHER (7)	LABOR (8)	OTHER (9)	LABOR (10)	OTHER (11)	LABOR (12)	OTHER (13)	LABOR (14)	OTHER (15)	
1	589	RENTS																	
2		CUSTOMER	A.F.30	\$ -	\$ 392	\$ 392	\$ -	\$ 262	\$ -	\$ 76	\$ -	\$ 48	\$ -	\$ -	\$ 4	\$ -	\$ 0	\$ -	\$ 2
3		DEMAND	A.F.31	\$ -	\$ 70	\$ 70	\$ -	\$ 33	\$ -	\$ 7	\$ -	\$ 18	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10
4																			
5																			
6																			
7		SUBTOTAL		\$ -	\$ 462	\$ 462	\$ -	\$ 294	\$ -	\$ 83	\$ -	\$ 65	\$ -	\$ -	\$ 7	\$ -	\$ 0	\$ -	\$ 12
8		DIST. OPERATING EXPENSE SUBTOTAL																	
9		CUSTOMER A580-589		\$ 15,500	\$ 30,717	\$ 46,217	\$ 11,732	\$ 20,539	\$ 2,453	\$ 5,988	\$ 1,045	\$ 3,732	\$ 77	\$ 291	\$ 5	\$ 20	\$ 187	\$ 147	
10		DEMAND A580-589		\$ 15,140	\$ 5,507	\$ 20,647	\$ 5,821	\$ 2,554	\$ 1,400	\$ 543	\$ 5,150	\$ 1,382	\$ 2,201	\$ 222	\$ -	\$ -	\$ 767	\$ 807	
11																			
12		TOTAL DIST. OPERATING EXPENSES		\$ 30,640	\$ 36,224	\$ 66,864	\$ 17,553	\$ 23,092	\$ 3,853	\$ 6,531	\$ 6,195	\$ 5,114	\$ 2,278	\$ 513	\$ 5	\$ 20	\$ 954	\$ 954	
13																			
14																			
15		DISTRIBUTION MAINTENANCE EXPENSES																	
16																			
17																			
18	591-592	SUBSTATIONS	A.F.8	\$ 10,468	\$ 6,468	\$ 16,934	\$ 5,241	\$ 3,300	\$ 1,155	\$ 714	\$ 3,151	\$ 1,947	\$ 745	\$ 460	\$ -	\$ -	\$ 75	\$ 46	
19																			
20	593	OVERHEAD LINES																	
21		CUSTOMER	A.F.22	\$ 8,449	\$ 23,874	\$ 32,323	\$ 7,013	\$ 19,900	\$ 870	\$ 2,753	\$ 68	\$ 183	\$ 1	\$ 1	\$ -	\$ -	\$ 397	\$ 1,126	
22		HY	A.F.23a	\$ 3,559	\$ 9,331	\$ 12,890	\$ 1,714	\$ 4,863	\$ 371	\$ 1,052	\$ 1,011	\$ 2,868	\$ 239	\$ 678	\$ -	\$ -	\$ 25	\$ 71	
23		PRIMARY	A.F.23b	\$ 10,326	\$ 29,301	\$ 39,627	\$ 5,275	\$ 15,252	\$ 1,162	\$ 3,289	\$ 3,170	\$ 9,996	\$ 543	\$ 1,540	\$ -	\$ -	\$ 75	\$ 214	
24		SECONDARY	A.F.24	\$ 621	\$ 1,761	\$ 2,382	\$ 312	\$ 884	\$ 81	\$ 231	\$ 217	\$ 615	\$ -	\$ -	\$ -	\$ -	\$ 11	\$ 31	
25		LIGHTING-DIRECT	A.F.25	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
26																			
27		SUBTOTAL		\$ 22,754	\$ 64,557	\$ 87,321	\$ 14,413	\$ 40,899	\$ 2,585	\$ 7,335	\$ 4,468	\$ 12,673	\$ 792	\$ 2,219	\$ -	\$ -	\$ 508	\$ 1,441	
28																			
29	594	UNDERGROUND LINES																	
30		CUSTOMER	A.F.26	\$ 3,249	\$ 3,672	\$ 6,920	\$ 2,715	\$ 3,069	\$ 376	\$ 425	\$ 26	\$ 30	\$ 0	\$ 0	\$ -	\$ -	\$ 132	\$ 149	
31		HY	A.F.27a	\$ 123	\$ 139	\$ 262	\$ 63	\$ 71	\$ 14	\$ 15	\$ 37	\$ 42	\$ 9	\$ 10	\$ -	\$ -	\$ 1	\$ 1	
32		PRIMARY	A.F.27b	\$ 886	\$ 1,002	\$ 1,888	\$ 461	\$ 522	\$ 100	\$ 113	\$ 272	\$ 308	\$ 47	\$ 53	\$ -	\$ -	\$ 6	\$ 7	
33		SECONDARY	A.F.28	\$ 408	\$ 461	\$ 869	\$ 247	\$ 279	\$ 53	\$ 60	\$ 105	\$ 118	\$ -	\$ -	\$ -	\$ -	\$ 3	\$ 4	
34																			
35		SUBTOTAL		\$ 4,669	\$ 5,274	\$ 9,940	\$ 3,486	\$ 3,940	\$ 542	\$ 613	\$ 440	\$ 498	\$ 56	\$ 63	\$ -	\$ -	\$ 142	\$ 161	
36																			
37	595	LINE TRANSFORMERS																	
38		CUSTOMER	A.F.20	\$ 650	\$ 525	\$ 1,174	\$ 566	\$ 457	\$ 78	\$ 63	\$ 5	\$ 4	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
39		SECONDARY	A.F.21	\$ 489	\$ 365	\$ 853	\$ 294	\$ 237	\$ 64	\$ 51	\$ 127	\$ 103	\$ -	\$ -	\$ -	\$ -	\$ 4	\$ 3	
40																			
41		SUBTOTAL		\$ 1,139	\$ 919	\$ 2,058	\$ 860	\$ 694	\$ 142	\$ 115	\$ 133	\$ 107	\$ -	\$ -	\$ -	\$ -	\$ 4	\$ 3	
42																			
43	596	LIGHTING		\$ 2,060	\$ 998	\$ 3,058	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,060	\$ 998	
44																			
45	597	METERS	A.F.7	\$ 616	\$ 100	\$ 716	\$ 403	\$ 65	\$ 125	\$ 20	\$ 81	\$ 13	\$ 6	\$ 1	\$ 0	\$ 0	\$ 1	\$ 0	
46																			
47		DIST. MAINTENANCE EXPENSE SUBTOTAL		\$ 12,563	\$ 28,270	\$ 40,833	\$ 10,697	\$ 23,491	\$ 1,549	\$ 3,261	\$ 181	\$ 241	\$ 7	\$ 3	\$ 0	\$ 0	\$ 529	\$ 1,275	
48		CUSTOMER A583-A597		\$ 28,738	\$ 50,055	\$ 78,793	\$ 13,806	\$ 25,408	\$ 3,000	\$ 5,535	\$ 8,050	\$ 14,997	\$ 1,582	\$ 2,740	\$ -	\$ -	\$ 2,261	\$ 1,374	
49		DEMAND A583-A597																	

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(Dollars in Thousands)

TITLE: OPERATING EXPENSES - PAGE 4

LINE #	ACCT #	ITEM	TOTAL MISSOURI		RESIDENTIAL		SMALL GEN. SERVICE		LARGE G.S./SM. PRIMARY		LARGE PRIMARY		LARGE TRANSMISSION		LIGHTING	
			LABOR (1)	OTHER (2)	LABOR (4)	OTHER (5)	LABOR (6)	OTHER (7)	LABOR (8)	OTHER (9)	LABOR (10)	OTHER (11)	LABOR (12)	OTHER (13)	LABOR (14)	OTHER (15)
1	590	SUPERVISION & ENGR														
2		CUSTOMER	\$ 651	\$ 133	\$ 784	\$ 111	\$ 78	\$ 15	\$ 9	\$ 1	\$ 0	\$ 0	\$ 0	\$ 0	\$ 27	\$ 6
3		DEMAND	\$ 1,443	\$ 236	\$ 1,678	\$ 603	\$ 151	\$ 26	\$ 408	\$ 71	\$ 79	\$ 13	\$ 0	\$ 0	\$ 114	\$ 6
4																
5																
6		SUBTOTAL	\$ 2,094	\$ 369	\$ 2,462	\$ 1,230	\$ 228	\$ 41	\$ 415	\$ 72	\$ 80	\$ 13	\$ 0	\$ 0	\$ 140	\$ 12
7																
8	598	MISCELLANEOUS														
9		CUSTOMER	\$ 295	\$ 741	\$ 1,037	\$ 244	\$ 35	\$ 85	\$ 4	\$ 6	\$ 0	\$ 0	\$ 0	\$ 0	\$ 12	\$ 33
10		DEMAND	\$ 655	\$ 1,312	\$ 1,967	\$ 315	\$ 60	\$ 145	\$ 184	\$ 383	\$ 36	\$ 72	\$ 0	\$ 0	\$ 52	\$ 36
11																
12		SUBTOTAL	\$ 951	\$ 2,053	\$ 3,004	\$ 559	\$ 104	\$ 231	\$ 189	\$ 389	\$ 36	\$ 72	\$ 0	\$ 0	\$ 64	\$ 69
13																
14		DIST MAINTENANCE EXPENSE SUBTOTAL	\$ 13,910	\$ 29,144	\$ 43,054	\$ 11,478	\$ 1,882	\$ 3,382	\$ 194	\$ 243	\$ 8	\$ 3	\$ 0	\$ 0	\$ 588	\$ 1,314
15		CUSTOMER A590-A598	\$ 30,836	\$ 51,803	\$ 82,439	\$ 14,814	\$ 3,219	\$ 5,706	\$ 9,681	\$ 15,461	\$ 1,897	\$ 2,825	\$ 0	\$ 0	\$ 2,426	\$ 1,417
16		DEMAND A590-A598														
17			\$ 44,746	\$ 80,747	\$ 125,492	\$ 26,291	\$ 50,411	\$ 9,098	\$ 8,875	\$ 15,709	\$ 1,705	\$ 2,828	\$ 0	\$ 0	\$ 2,893	\$ 2,731
18		TOTAL MAINTENANCE OPERATING EXPENSE														
19		TOTAL DISTRIBUTION EXPENSES	\$ 75,385	\$ 116,971	\$ 182,356	\$ 43,845	\$ 8,734	\$ 15,589	\$ 15,070	\$ 20,822	\$ 3,983	\$ 3,341	\$ 6	\$ 20	\$ 3,848	\$ 3,685

TITLE: OPERATING EXPENSES - PAGE 5

LINE #	ACCT #	ITEM	TOTAL MISSOURI		RESIDENTIAL		SMALL GEN. SERVICE		LARGE G.S./SM. PRIMARY		LARGE PRIMARY		LARGE TRANSMISSION		LIGHTING	
			LABOR (1)	OTHER (2)	LABOR (4)	OTHER (5)	LABOR (6)	OTHER (7)	LABOR (8)	OTHER (9)	LABOR (10)	OTHER (11)	LABOR (12)	OTHER (13)	LABOR (14)	OTHER (15)
1																
2																
3																
4		CUSTOMER ACCOUNT EXPENSES														
5	902	METER READING	\$ 89	\$ 7,879	\$ 7,968	\$ 76	\$ 6,776	\$ 11	\$ 938	\$ 2	\$ 137	\$ 17	\$ 0	\$ 2	\$ 0	\$ 9
6	905	MISCELLANEOUS	\$ 6	\$ 152	\$ 158	\$ 5	\$ 165	\$ 1	\$ 23	\$ 0	\$ 3	\$ 0	\$ 0	\$ 0	\$ 0	\$ 0
7	903	CUSTOMER RECORDS	\$ 6,132	\$ 7,558	\$ 13,700	\$ 4,855	\$ 5,671	\$ 249	\$ 939	\$ 850	\$ 918	\$ 6	\$ 0	\$ 0	\$ 72	\$ 35
8	904	UNCOLLECTIBLE ACCOUNTS	\$ -	\$ 15,572	\$ 15,572	\$ -	\$ 13,717	\$ -	\$ 803	\$ -	\$ 845	\$ 63	\$ -	\$ -	\$ -	\$ 43
9	903	CREDIT AND COLLECTION	\$ 1,804	\$ 2,250	\$ 4,053	\$ 1,677	\$ 2,070	\$ 110	\$ 136	\$ 103	\$ 128	\$ 9	\$ -	\$ -	\$ 5	\$ 7
10		INTEREST ON SURETY DEPOSITS	\$ -	\$ 722	\$ 722	\$ -	\$ 402	\$ -	\$ 176	\$ -	\$ 134	\$ -	\$ -	\$ -	\$ -	\$ -
11																
12		SUBTOTAL	\$ 8,130	\$ 34,283	\$ 42,413	\$ 6,614	\$ 28,800	\$ 471	\$ 3,115	\$ 955	\$ 2,166	\$ 95	\$ 0	\$ 7	\$ 77	\$ 100
13																
14	801	SUPERVISION	\$ 1,634	\$ 0	\$ 1,634	\$ 0	\$ 85	\$ 1	\$ 102	\$ 1	\$ 3	\$ 0	\$ 0	\$ 0	\$ 15	\$ 0
15																
16		TOTAL CUSTOMER ACCOUNT EXPENSES	\$ 9,764	\$ 34,282	\$ 44,056	\$ 7,643	\$ 28,808	\$ 586	\$ 3,116	\$ 1,147	\$ 2,166	\$ 95	\$ 0	\$ 7	\$ 92	\$ 100
17																
18																



AMEREN MISSOURI  
Case No. ER-2012-0166

Electric Cost of Service Allocation Study  
at Present Rates  
Includes MIEC Classification Adjustments and MIEC's Alternative Income Tax Calculator  
with Energy Efficiency Costs Removed  
(Dollars in Thousands)

CUSTOMER SERVICE & SALES EXPENSES																
DIRECT																
A.F.24																
19	308-1390 RCS															
20	908-916 CUSTOMER SERVICES & SALES															
21																
22																
23																
24																
25																
26	907-911 SUPERVISION															
27																
28																
29																
30																
31																
32																
33																
34																
35																
36																
37																
38																
39																
40																
TOTAL CUSTOMER SERVICE & SALES EXPENSES																
TOTAL PROD, T&D, CUST EXPENSES																
A & G EXPENSES																
EPR																
A.F.14																
A.F.35																
SUBTOTAL																
TOTAL PROD,T&D,CUST,A&G EXPENSES																
TITLE: OPERATING EXPENSES--PAGE 9																
ALLOCATION BASIS																
LINE #	ACCT #	ITEM	TOTAL MISSOURI		RESIDENTIAL		SMALL GEN. SERVICE		LARGE G.S./SM. PRIMARY		LARGE PRIMARY		LARGE TRANSMISSION		LIGHTING	
			LABOR	OTHER	LABOR	OTHER	LABOR	OTHER	LABOR	OTHER	LABOR	OTHER	LABOR	OTHER	LABOR	OTHER
DEPREG & AMORTIZATION EXPENSES																
1																
2																
3																
4																
5		DEPR-PRODUCTION PLANT														
6		DEPR-COMMON PLANT														
7		DEPR-TRANSMISSION PLANT														
8		DEPR-DISTRIBUTION PLANT														
9		DEPR-GENERAL PLANT														
10																
11																
12																
13																
14																
15																
16																
17																
18																
19																
20		REAL ESTATE & PROPERTY TAXES														
21		INCOME/CITY EARNINGS TAXES														
22		RETURN														
23		PAYROLL TAXES														
24		ENVIRONMENTAL TAX														
25																
26		SUBTOTAL														
27																
28		TOTAL OPERATING & OTHER EXPENSES														
29																
30																
31																
32		TOTAL COST OF SERVICE														
33																

**AMEREN MISSOURI**  
Case No. ER-2012-0166

**Class Cost of Service Study Results  
and Revenue Adjustments to Move Each Class to Cost of Service  
Using MIEC's Modified ECOS at Present Rates  
with Energy Efficiency Costs Removed**  
(Dollars in Thousands)

Line	Rate Class	Base Revenues (1)	Current Rate Base (2)	Adjusted Operating Income (3)	Earned ROR (4)	Indexed ROR (5)	Income @ Equal ROR (6)	Difference in Income (7)	Revenue Increase (8)	Percent Increase (9)
1	Residential	\$ 1,170,105	\$ 3,473,773	\$ 146,222	4.209%	71	\$ 205,612	\$ 59,391	\$ 95,863	8.2%
2	Small Gen. Service	288,054	727,048	52,174	7.176%	121	43,034	(9,140)	(14,753)	-5.1%
3	Large G.S. / Sm Primary	749,850	1,711,931	143,441	8.379%	142	101,329	(42,112)	(67,974)	-9.1%
4	Large Primary	189,820	413,557	32,539	7.868%	133	24,478	(8,061)	(13,011)	-6.9%
5	Large Transmission	147,949	296,985	19,915	6.706%	113	17,579	(2,337)	(3,772)	-2.5%
6	Lighting	34,380	109,570	4,226	3.857%	65	6,485	2,259	3,647	10.6%
7	Total	\$ 2,580,158	\$ 6,732,863	\$ 398,518	5.919%	100	\$ 398,518	\$ -	\$ -	0.0%

**AMEREN MISSOURI**  
**Case No. EO-2012-0142**

**Cost-Effectiveness Test Summary**

<b>MEEIA Implementation Plan 2013-2015</b>	<b>TRC</b>	<b>UCT</b>	<b>PCT</b>	<b>RIM</b>
RES-Lighting	3.66	6.01	10.18	0.56
RES-Efficient Products	1.55	3.90	2.85	0.62
RES-HVAC	2.11	4.61	2.63	0.94
RES-Refrigerator Recycling	2.23	2.93	11.67	0.63
RES-HEP	1.64	3.00	3.11	0.68
RES-New Homes	1.26	1.77	3.61	0.57
RES-Low Income	0.84	0.84	2.85	0.43
RES-TOTAL	2.24	4.00	4.52	0.68
Bus-Standard	2.14	3.15	4.10	0.75
BUS-Custom	1.77	3.55	2.62	0.82
BUS-RCx	1.70	3.77	2.51	0.79
BUS-New Construction	1.36	2.22	2.42	0.71
BUS-TOTAL	1.85	3.33	2.98	0.79
<b>PORTFOLIO TOTAL</b>	<b>2.07</b>	<b>3.71</b>	<b>3.86</b>	<b>0.72</b>

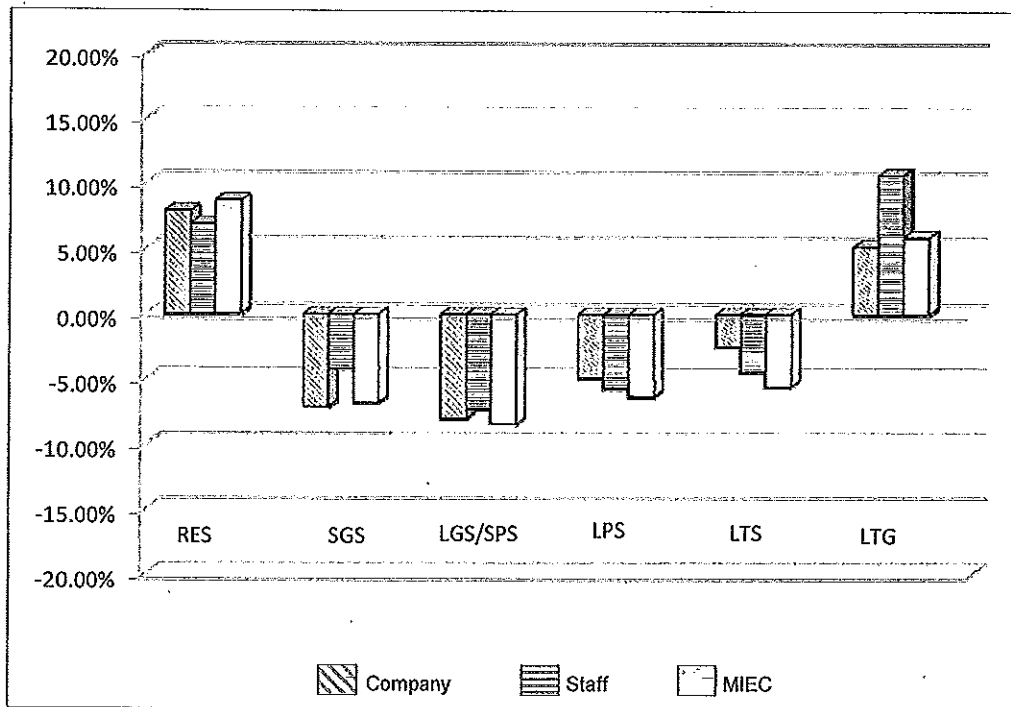
Note: Data in table reflects cost-based values calculated using DSMore.

Source: Ameren Missouri MEEIA Report, Page 43.

## AMEREN MISSOURI

### Comparison of the Class Cost of Service Results Percent Change in Class Revenues Required to Equalize Rate of Return at Present Rates (Revenue Neutral)

LINE NO.	DESCRIPTION	RES (1)	SGS (2)	LGS/SPS (3)	LPS (4)	LTS (5)	LTG (6)
1	Company	7.83%	-7.13%	-7.99%	-4.88%	-2.49%	5.22%
2	Staff	6.81%	-4.20%	-7.28%	-5.73%	-4.43%	10.67%
3	MIEC	8.63%	-6.78%	-8.45%	-6.31%	-5.54%	5.87%



**Sources:**

**Company:** Ameren's ECOS study modified to reflect income taxes at present rates;

Schedule MEB-COS-6.

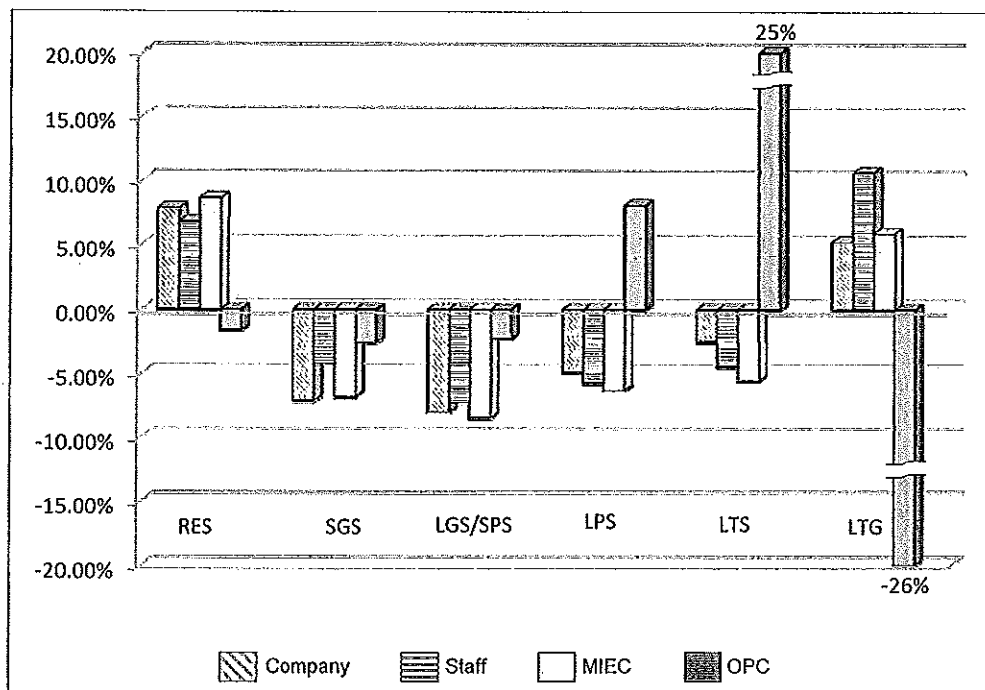
**Staff:** Workpaper "Staff CCOS - Ameren Missouri.xlsx", tab "Table 2".

**MIEC:** Schedule MEB-COS-5

## AMEREN MISSOURI

### Comparison of the Class Cost of Service Results Percent Change in Class Revenues Required to Equalize Rate of Return at Present Rates (Revenue Neutral)

LINE NO.	DESCRIPTION	RES (1)	SGS (2)	LGS/SPS (3)	LPS (4)	LTS (5)	LTG (6)
1	Company	7.83%	-7.13%	-7.99%	-4.88%	-2.49%	5.22%
2	Staff	6.81%	-4.20%	-7.28%	-5.73%	-4.43%	10.67%
3	MIEC	8.63%	-6.78%	-8.45%	-6.31%	-5.54%	5.87%
4	OPC	-1.62%	-2.58%	-2.27%	8.09%	24.99%	-25.72%



#### Sources:

**Company:** Ameren's ECOS study modified to reflect income taxes at present rates;  
Schedule MEB-COS-6.

**Staff:** Workpaper "Staff CCOS - Ameren Missouri.xlsx", tab "Table 2".

**MIEC:** Schedule MEB-COS-5

**OPC:** Workpaper "RevisedwS A&4CP BAM WP CCOS w CC ER-2012-0166-HC.xlsx",  
tab "Schedule BAM Direct-1", Row 39.