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Witness: David C. Roos
Sponsoring Party: MO PSC Staff
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MISSOURI PUBLIC SERVICE COMMISSION

UTILITY OPERATIONS DIVISION

SURREBUTTAL TESTIMONY

OF

DAVID C. ROOS

UNION ELECTRIC COMPANY d/b/a AMERENUE

CASE NO. ER-2007-0002

**Jefferson City, Missouri
February 2007**

**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 DAVID C. ROOS

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

David C. Roos, of lawful age, on his oath states: that he has participated in the preparation of the following Surrebuttal Testimony in question and answer form, consisting of 7 pages of Surrebuttal Testimony to be presented in the above case, that the answers in the following Surrebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true to the best of his knowledge and belief.

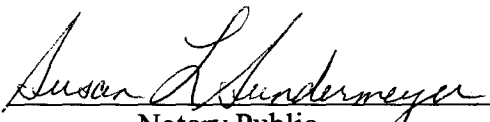


David C. Roos

Subscribed and sworn to before me this 26th day of February, 2007.



SUSAN L. SUNDERMEYER
My Commission Expires
September 21, 2010
Callaway County
Commission #06942086



Notary Public

My commission expires 9-21-10

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OF
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SURREBUTTAL TESTIMONY

OF

DAVID C. ROOS

UNION ELECTRIC COMPANY d/b/a AMERENUE

CASE NO. ER-2007-0002

Q. Please state your name and business address.

A. My name is David C. Roos and my business address is Missouri Public
e Commission, P.O. Box 360, Jefferson City, MO 65102.

Q. What is your present position with the Missouri Public Service Commission (Commission)?

A. I am a Regulatory Economist III in the Economic Analysis Section, Energy
 Department, Operations Division of the Missouri Public Service Commission.

Q. Are you the same David C. Roos that filed direct testimony earlier in this
ding?

A. Yes I am.

EXECUTIVE SUMMARY

Q. What is the purpose of your surrebuttal testimony?

A. In Schedule DRSu-1 I present the results of Missouri Public Service Commission Staff's (Staff's) revised Class Cost-of-Service (CCOS) study, which was submitted to the other parties on February 9, 2007. In Schedule DRSu-2 I provide a comparison of the class cost-of-service studies of the other parties. The table is updated for studies that have been filed or circulated among the parties as of February 22, 2007.

I also respond to AmerenUE witness William M. Warwick's comments concerning Staff's

1 combining customers of the Large General Service and Small Primary Service rate schedules
2 into one customer class, the Large General Service class.

3 **CHANGES TO STAFF'S COST-OF SERVICE STUDY**

4 Q. Have you made any changes to Staff's CCOS study?

5 A. Yes, I changed how revenues from off-system sales are allocated to the rate
6 classes, and I changed how the length related portion of the distribution system is allocated to
7 the rate classes.

8 Q. Why?

9 A. I used AmerenUE's CCOS study as a starting point for developing Staff's
10 CCOS. However, I did not replace AmerenUE's allocation method for off-system sales with
11 Staff's allocation method. Staff's revised CCOS study uses Staff's allocation method for
12 allocating the revenues generated from off-system sales.

13 In Staff's revised CCOS study, revenues from off-system sales were first offset by the
14 fuel and purchased power costs associated with making those off-system sales to determine
15 the profit or "margin" from off-system sales; then only the margin from off-system sales was
16 allocated to the customer classes using Staff's production capacity allocator.

17 Q. Why did you change how the length related portion of the distribution system
18 is allocated to the rate classes?

19 A. In the original study I did not account for customer density in allocating the
20 length-related portion of the distribution system. To account for customer density in
21 allocating the length-related portion of the distribution system in the updated study, the Staff
22 developed a weighted customer allocator based on the number of customers in each class

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multiplied by a set of weights that approximately reflect customer density for each class. Staff considers this method to be a more reasonable way to allocate the portion of distribution system costs that varies with length.

Q. What are the results of Staff's revised CCOS study?

A. The following table summarizes the results of Staff's revised CCOS study on a revenue neutral basis. A summary of the model's output is provided as Schedule DRSu-1.

	RES	SGS	LGS ¹	LPS	LTS	Total
Revenue Deficiency:	(\$57,864,021)	(\$31,365,171)	(\$101,525,535)	\$ 391,305	(\$12,500,590)	(\$202,864,013)
Required % Increase:	-6.55%	-13.11%	-16.30%	0.25%	-9.22%	-9.94%
% Revenue Neutral Deficiency	3.39%	-3.17%	-6.35%	10.19%	0.73%	0.00%

1. LGS is LGS and SPS Rate Schedules

Q. What conclusions can be made from Staff's revised CCOS study?

A. On a revenue neutral basis, Staff's revised CCOS shows that the residential (RES), Large Primary Service (LPS), and Large Transmission Service (LTS) classes are providing approximately 3.39%, 10.19%, and 0.73% less revenues than the cost of serving each class, respectively. The Small General Service (SGS) and Large General Service (LGS) classes are providing 3.17% and 6.36% more revenues, respectively, than the cost of serving them. These results suggest AmerenUE's revenues from the RES, LPS, and LTS classes are less than AmerenUE's cost to serve them and that AmerenUE's revenues from the SGS and LGS classes exceed AmerenUE's cost to serve them.

Q. Would you compare the results of Staff's revised CCOS study to the results of the other CCOS studies circulated in this case?

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1 A. Yes. Schedule DRSu-2 provides a comparison of the results of the COCS
2 studies filed or circulated among the parties to this case, as of February 22, 2007

3 Q. Can you draw any conclusions from the CCOS studies regarding the
4 Residential class' contribution to class revenue responsibility?

5 A. The study results are mixed. For the Residential class, the CCOS studies show
6 that a range from -1.70% to +15.70% change in that class' revenues is required to match the
7 cost of providing electrical service to the Residential class. Office of the Public Counsel's
8 (OPC's) Time-of-Use (TOU) study shows that Residential revenues are nearly equal to the
9 cost of providing service to the Residential class, while the results from the other studies
10 indicate that the revenues from the Residential class are at least somewhat less than cost of
11 serving the Residential class.

12 Q. Can you draw any conclusions from the CCOS studies regarding the Small
13 General Service class' contribution to class revenue responsibilities?

14 A. Yes. Schedule DCRSu-2 shows that the results of all the CCOS studies now
15 indicate that the SGS class provides revenues above AmerenUE's cost of providing service to
16 the SGS class. For the SGS class, the percent change to class revenues required to match the
17 cost of serving that class range from -8.06% to -2.30%.

18 Q. Can you draw any conclusions from the CCOS studies regarding the Large
19 General Service (LGS & SPS Rate Schedules) class' contribution to class revenue
20 responsibilities?

21 A. Yes. All the CCOS studies now show that the LGS class provides revenues
22 above AmerenUE's cost of providing service to that class. The percentage changes in rate
23 revenue required to match the cost of service range from -12.94% to -3.52%.

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1 Q. Can you draw any conclusions from the CCOS studies regarding the Large
2 Primary Service class' contribution to class revenue responsibilities?

3 A. The study results show LPS class revenue responsibility must be changed
4 from -5.50% to +20.05% to match LPS class costs. The results of the AmerenUE, Staff,
5 OPC, AARP and one of the Missouri Industrial Energy Consumers (MIEC) studies indicate
6 the LPS class revenues do not cover the cost of providing service to that class; however, two
7 of the MIEC studies do show that LPS revenues exceed the cost of serving that class.

8 Q. Can you draw any conclusions from the CCOS studies regarding the Large
9 Transmission Service class contribution to class revenue responsibilities?

10 A. Of the six classes considered in the CCOS studies, the LTS class results
11 produced the widest range of outcomes with regard to changes in class revenue responsibility
12 required to match class costs. Changes to class revenues range from -30.80% to +8.28%.
13 The AmerenUE, OPC (one study), MIEC (three studies) and the AARP study results indicate
14 revenues from the LTS class exceed the cost of serving that class. One of the OPC's CCOS
15 study results and the Staff's study results indicate that the revenues from the LTS class do not
16 cover the cost of providing service to the LTS class; however, the Staff's study indicates a
17 difference of less than one percent between the revenues produced by the LTS class and the
18 cost of serving that class.

19 Q. Would you summarize your conclusions regarding class revenue
20 responsibilities based on the CCOS study results?

21 A. The studies show that the SGS and LGS classes are providing more revenues
22 than the cost of serving them. The study results are mixed concerning the revenue
23 requirements for the RES, LPS and LTS classes.

**REPLY TO AMERENUE WITNESS WILLIAM M. WARWICK'S REBUTTAL
TESTIMONY**

Q. What comments does Mr. Warwick have regarding Staff's combining the customers on the LGS and SPS rate schedules into one customer class for the CCOS study and rate design?

A. On page 7 lines 6-11 of Mr. Warwick's Rebuttal testimony, he states that he does not understand Staff's proposal to combine the LGS and SPS classes and that he has a data request pending to Staff on this issue.

Q. Could you explain why Staff combined the customers of the LGS and SPS rate schedules into one customer class?

A. Yes. I provided the following response to AmerenUE's Data Request WMW-Staff-001 that addresses this issue and stated:

Both rate schedules serve non-residential customers with billing demands of at least 100 kW. Within this class, a customer may choose to take service at a secondary voltage level under the Large General Service rate schedule or at a primary voltage level under Small Primary Service rate schedule. The rate structure and rate levels on both rate schedules are identical except that the rate levels on the Small Primary Service rate schedule have been adjusted for the loss differential between primary and secondary voltages and to account for customer provision of transformation equipment.

In addition, AmerenUE witness Wilbon L. Cooper, on page 24 lines 11-14 of his Direct Testimony in addressing the current structure of the LGS and SPS rates stated:

The structures of these rates, which are applicable to the Company's larger commercial and industrial customers, are virtually identical, as the service provided to such customers varies only by the delivery voltage and meter location.

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1 Because the LGS and SPS customers differ only by delivery voltage and meter location, Staff
2 combined the customers on both rate schedules into a single cost-of-service class. Failure to
3 combine these groups would result in too much demand-related cost being allocated to them
4 because these customers would lose the benefits of load diversity when determining their
5 level of demand, i.e., the sum of the non-coincident peaks of two groups is always higher
6 than their coincident peak.

7 Q. Does this conclude your surrebuttal testimony in this case?

8 A. Yes, it does.

STAFF ALLOC STAFF ACCTCLASS COST-OF-SERVICE RESULTS

(AMEREN UE)

AT STAFF'S MIDPOINT OF RATE OF RETURN ON RATE BASE OF 7.44%

CASE NO. ER-2007-0002

FUNCTIONAL CATEGORY			RES	SGS	LGS	LPS	LTS	TOTAL	% OF TOTAL
PRODUCTION	CAPACITY		\$334,861,787	\$87,914,866	\$257,145,354	\$81,765,265	\$69,807,780	\$831,495,051	37.09%
PRODUCTION	ENERGY		\$158,639,119	\$42,727,006	\$139,866,333	\$47,715,416	\$44,168,587	\$433,116,461	19.32%
TRANSMISSION	CAPACITY		\$26,958,260	\$7,077,642	\$20,701,649	\$6,582,564	\$5,619,919	\$66,940,033	2.99%
	SUBSTATIONS	DEMAND	\$20,973,403	\$4,801,572	\$11,965,083	\$3,253,657	\$0	\$40,993,716	1.83%
							\$0		
							\$0		
							\$0		
DISTRIBUTION	OH/UG Lines,Poles,Conductors	SEC DEMAND	\$17,699,310	\$4,600,922	\$6,717,099	\$0	\$0	\$29,017,331	1.29%
DISTRIBUTION	OH/UG Lines,Poles,Conductors	CUSTOMER	\$21,744,601	\$8,824,910	\$1,295,140	\$11,770	\$21	\$31,876,443	1.42%
DISTRIBUTION	OH/UG Lines,Poles,Conductors	PRI DEMAND	\$45,733,545	\$11,888,401	\$24,173,608	\$4,700,204	\$0	\$86,495,758	3.86%
DISTRIBUTION	TRANSFORMERS	SEC. CUSTOMER	\$11,308,550	\$1,529,835	\$105,101	\$0	\$0	\$12,943,485	0.58%
DISTRIBUTION	TRANSFORMERS	DEMAND	\$1,106,474	\$243,555	\$281,143	\$0	\$0	\$1,631,172	0.07%
DISTRIBUTION	OPERATIONS		\$11,831,649	\$3,770,428	\$6,147,895	\$2,394,808	\$55,216	\$24,199,996	1.08%
DISTRIBUTION	MAINTENANCE		\$2,674,042	\$780,911	\$1,095,445	\$194,265	\$11,639	\$4,756,301	0.21%
DISTRIBUTION	METERS		\$6,315,458	\$2,015,448	\$842,049	\$85,519	\$5,035	\$9,263,509	0.41%
DISTRIBUTION	DIRECT ASSIGNMENTS		(\$571,097)	\$0	\$952,167	\$952,167	\$0	\$1,333,236	0.06%
	CUSTOMER DEPOSITS		(\$396,995)	(\$280,178)	(\$223,699)	(\$32,478)	\$0	(\$933,351)	-0.04%
	METER READING		\$14,808,245	\$2,003,278	\$241,039	\$3,886	\$69	\$17,056,517	0.76%
	BILLING, SALES, SERVICE		\$17,069,922	\$1,223,110	\$779,916	\$819,900	\$73	\$19,892,922	0.89%
	A & G		\$148,497,173	\$37,435,614	\$101,581,206	\$32,730,327	\$26,833,608	\$347,077,929	15.48%
	CUSTOMER RECORDS		\$17,094,951	\$1,888,376	\$2,900,751	\$18,618	\$593	\$21,903,289	0.98%
			\$0	\$0	\$0	\$0	\$0		
	DEP.(DIST), TAXES, CWC		\$142,540,919	\$32,248,367	\$64,759,470	\$15,948,949	\$7,560,755	\$263,058,459	11.73%
TOTAL			\$998,889,315	\$250,694,062	\$641,326,749	\$197,144,837	\$154,063,296	\$2,242,118,258	100.00%
Allocate Cost of Service for Others			\$0	\$0	\$0	\$0	\$0	\$0	
TOTAL COST OF SERVICE			\$998,889,315	\$250,694,062	\$641,326,749	\$197,144,837	\$154,063,296	\$2,242,118,258	
%			44.55%	11.18%	28.60%	8.79%	6.87%	100%	
RATE REVENUE			\$ 883,572,678	\$ 239,245,325	\$ 623,036,744	\$ 158,871,484	\$ 135,652,313	\$2,040,378,545	
Allocate Revenue for Others			\$ 13,852,110	\$ 3,133,226	\$ 7,117,815	\$ 1,940,763	\$ 1,150,012	\$27,193,926	
OTHER REVENUE			\$ 32,291,407	\$ 6,328,255	\$ 15,144,012	\$ 4,921,843	\$ 3,278,452	\$61,963,968	
System and Interchange Margin			\$ 127,037,142	\$ 33,352,427	\$ 97,553,713	\$ 31,019,441	\$ 26,483,108	\$315,445,831	
			\$0	\$0	\$0	\$0	\$0		
TOTAL REVENUE			\$ 1,056,753,336	\$282,059,233	\$742,852,284	\$196,753,531	\$166,563,886	\$2,444,982,271	
%			43.22%	11.54%	30.38%	8.05%	6.81%	100%	
REVENUE DEFICIENCY			(\$57,864,021)	(\$31,365,171)	(\$101,525,535)	\$391,305	(\$12,500,590)	(\$202,864,013)	
% CHANGE			-6.55%	-13.11%	-16.30%	0.25%	-9.22%	-9.94%	
% REVENUE NEUTRAL CHANGE			3.39%	-3.17%	-6.35%	10.19%	0.73%	0.00%	

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A COMPARISON OF THE RESULTS OF THE CLASS COST OF SERVICE STUDIES
THE PERCENT CHANGE IN CLASS REVENUES REQUIRED TO EQUALIZE CLASS RATES OF RETURN
(REVENUE NEUTRAL)

	Mo Retail	RES	SGS	LGS	LPS	LTS
AmerenUE (A&E)¹	0.00%	8.20%	-6.10%	-8.70%	7.60%	-10.90%
Staff (A&P)¹	0.00%	3.39%	-3.17%	-6.35%	10.19%	0.73%
OPC (A&P)¹	0.00%	3.62%	-5.00%	-6.44%	13.24%	-0.68%
OPC (TOU)¹	0.00%	-0.30%	-6.64%	-3.94%	20.05%	8.28%
MIEC (A&E) #1	0.00%	14.10%	-2.96%	-12.32%	-3.06%	-26.56%
MIEC (A&E) #2	0.00%	11.60%	-4.20%	-10.55%	1.00%	-19.90%
MIEC (A&E) #3	0.00%	15.70%	-2.30%	-12.94%	-5.50%	-30.80%
AARP (A&P)	0.00%	1.60%	-8.06%	-3.52%	17.60%	-1.26%

1. Revised results as circulated to the parties as of Feb 12, 2007

Schedule DRSu-2