

# EXHIBIT

**Exhibit No.:**

**Issue(s):**

FILED  
October 23, 2012  
Data Center  
Missouri Public  
Service Commission

Cost of Service/  
Rate Design/

**Witness/Type of Exhibit:** Meisenheimer/Surrebuttal

**Sponsoring Party:** Public Counsel

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

## SURREBUTTAL TESTIMONY

OF

BARBARA A. MEISENHEIMER

Submitted on Behalf of the Office of the Public Counsel

UNION ELECTRIC COMPANY D/B/A  
AMEREN MISSOURI

CASE NO. ER-2012-0166

September 7, 2012

OPC Exhibit No. 405  
Date 9-27-12 Reporter XF  
File No. ER-2012-0166

**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            )


File No. ER-2012-0166

**AFFIDAVIT OF BARBARA A. MEISENHEIMER**

STATE OF MISSOURI     )  
                                      )   ss  
COUNTY OF COLE     )

Barbara A. Meisenheimer, of lawful age and being first duly sworn, deposes and states:

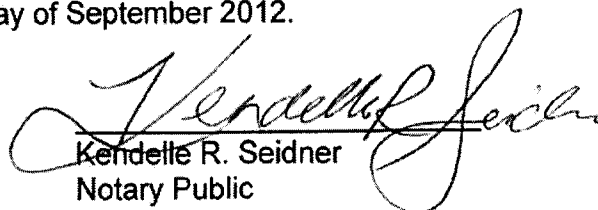
1. My name is Barbara A. Meisenheimer. I am a Chief Utility Economist for the Office of the Public Counsel.
2. Attached hereto and made a part hereof for all purposes is my surrebuttal testimony.
3. I hereby swear and affirm that my statements contained in the attached testimony are true and correct to the best of my knowledge and belief.

  
\_\_\_\_\_  
Barbara A. Meisenheimer  
Chief Utility Economist

Subscribed and sworn to me this 7<sup>th</sup> day of September 2012.



KENDELLE R. SEIDNER  
My Commission Expires  
February 4, 2015  
Cole County  
Commission #11004782

  
\_\_\_\_\_  
Kendelle R. Seidner  
Notary Public

My Commission expires February 4, 2015.

**Surrebuttal Testimony  
Of  
Barbara Meisenheimer**

**Ameren Missouri**

**ER-2012-0166**

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

2    **A.     Barbara A. Meisenheimer, Chief Utility Economist, Office of the Public Counsel,**  
3           **P. O. 2230, Jefferson City, Missouri 65102. I am also an adjunct instructor for**  
4           **William Woods University.**

5    **Q.     HAVE YOU TESTIFIED PREVIOUSLY IN THIS CASE?**

6    **A.     Yes. I filed direct testimony on revenue requirement on July 6, 2012, direct**  
7           **testimony on class cost of service and rate design on July 19, 2012 and rebuttal**  
8           **testimony on August 14, 2012.**

9    **Q.     WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?**

10   **A.     My surrebuttal testimony responds to portions of the rebuttal testimony of Union**  
11           **Electric Company d/b/a Ameren Missouri (Ameren Missouri or the Company)**  
12           **witnesses William Warwick and Wilbon Cooper, and Missouri Industrial Energy**  
13           **Consumers (MIEC) witness Maurice Brubaker.**

1     **Q.     MR. BRUBAKER DISCUSSES HIS CONCERNS WITH THE ALLOCATION OF ENERGY**  
2     **EFFICIENCY RELATED COSTS IN YOUR CLASS COST OF SERVICE STUDIES. DO YOU**  
3     **AGREE THAT THE STUDIES SHOULD BE MODIFIED TO REFLECT A CUSTOMER**  
4     **CLASS SPECIFIC ALLOCATION OF ENERGY EFFICIENCY RELATED COSTS**  
5     **CONSISTENT WITH THE STIPULATION AND AGREEMENT IN EO-2012-0142?**

6     A.    Yes. I corrected my studies to reflect the same account allocations used by Staff in  
7     this case. The changes affected the allocation of the Other Rate Base Account,  
8     Account 557, Account 923 and Account 407. The updated CCOS study results are  
9     illustrated in Schedule SUR BAM-1 and Schedule SUR BAM-2. Schedule SUR  
10    BAM-1 illustrates the results of the study for which I used a time of use Average and  
11    4 Coincident Peak (A&4CP) allocator to assign demand related production costs and  
12    associated expenses. Schedule SUR BAM-2 illustrates the results of the study for  
13    which I used an Average and Excess 4 Non-coincident Peak (A&E 4NCP) allocator  
14    to assign demand related production costs and associated expenses.

15    **Q.     DID THE REVISED RESULTS OF YOUR CLASS COST OF SERVICE STUDY ALTER**  
16    **YOUR RATE DESIGN RECOMMENDATION IN THIS CASE?**

17    A.    No. While the correction did result in somewhat different levels of revenue neutral  
18    shifts, the changes were not significant in terms of altering my rate design  
19    recommendation that the Residential and SGS classes should not receive a  
20    disproportionate increase in this case.

1    **Q.     WHAT ARE MR. BRUBAKER'S AND THE COMPANY'S CRITICISMS OF THE A&4CP**  
2           **PRODUCTION ALLOCATOR?**

3    **A.     Mr. Brubaker and the Company criticize the OPC production allocation method**  
4           **claiming that:**

- 5    •     The OPC method is not supported as to theory or shown to be applicable to the  
6           AmerenUE system.
- 7    •     The OPC method over-allocates costs to large high load factor customers.
- 8    •     OPC's A&P method double-counts the average demand.

9    **Q.     HAVE YOU EXPLAINED AND PROVIDED THEORETICAL SUPPORT FOR YOUR**  
10          **PRODUCTION ALLOCATION METHODS?**

11   **A.     Yes. Contrary to Mr. Brubaker's claim, my direct testimony explained that both**  
12          **demand and energy characteristics of a system's load are important determinants of**  
13          **production plant costs since production must satisfy both periods of normal use**  
14          **throughout the year and intermittent peak use. My direct testimony went on to**  
15          **explain how the A & 4CP method reflects normal and peak use, how the allocation**  
16          **was developed and how the allocation method conforms to a method recognized by**  
17          **the NARUC Electric Utility Cost Allocation Manual.**

18                I disagree with Mr. Brubaker's complaint that the A&4CP method assigns  
19                about 55% of costs based on annual energy consumption and only 45% on four  
20                coincident peaks. A load factor of 55% describes that on average throughout the  
21                year aggregate system demand is 55% of the annual maximum demand. On the  
22                other hand, the four coincident peaks used for the allocation represent only 4 hours

1 out of an entire year. The relative use in those 4 hours guides the allocation of 45%  
2 of all production costs. I believe that that is far from unfair in terms of representing  
3 peak usage in allocating production costs. Using non-coincident peaks is much  
4 more unfair in my opinion because non-coincident peaks are not based on actual  
5 aggregate system demand and may never lead to the need for greater production  
6 costs to be incurred.

7 **Q. IS THE 4CP USED BY REPRESENTATIVE OF THE PEAK DEMAND ON AMEREN**  
8 **MISSOURI'S SYSTEM?**

9 A. Yes. I addressed this issue in my direct testimony.

10 **Q. PLEASE RESPOND TO THE CLAIM THAT YOUR A&4CP METHOD OVER-**  
11 **ALLOCATES COSTS TO LARGE HIGH LOAD FACTOR CUSTOMERS.**

12 A. The OPC method does not over-allocate costs to large high load factor customers.  
13 Large high load factor customers use the system at the same time as smaller lower  
14 load factor customers and benefit from the economies of scale and off-system sales  
15 opportunities created by sharing production facilities with the large customer base of  
16 smaller lower load factor customers.

17 **Q. MR. COOPER AND MR. BRUBAKER RAISE THE SPECTER OF DOUBLE COUNTING**  
18 **ENERGY IN DETERMINING THE A&4CP ALLOCATOR. IS THIS A FAIR**  
19 **CRITICISM?**

20 A. No. The A&CP method is intentionally designed to give weight to both the class  
21 share of average demand and the class share of the system peak. This does not  
22 constitute double counting but is simply a different theoretical basis for the allocator  
23 than is used in the 4NCP A&E method. The Average and Peak components of the

1 allocator represent two distinctly different considerations. The Average component  
2 reflects that a portion of demand is not sensitive to factors that change throughout  
3 the year while the Peak component represents the allocation associated with factors  
4 that do change throughout the year such as weather. Considering the characteristics  
5 of four “like” periods, each of which is a potential peak period, recognizes that the  
6 characteristics of demand may vary by class depending on exactly when the peak  
7 demand occurs.

8 The cost of shared production facilities cannot be attributed with precision to  
9 particular customer classes. Therefore, the goal in developing a method for  
10 allocating these costs between customer classes is to assign a reasonable portion of  
11 costs to classes based on cost causative considerations. The A&4CP produces an  
12 allocation that assigns a reasonable portion of costs based on characteristics of  
13 average energy use and a reasonable portion based on characteristics of peak use.  
14 As discussed in my direct testimony, under my allocation method, the Residential  
15 Class would be allocated 43.23% of production costs. This is less than the share that  
16 would be allocated to the Residential Class using a pure peak allocation method such  
17 as the sum of the 4CP, but it is more than the share that would result from an  
18 allocation based solely on average annual energy use. In contrast, the Company and  
19 MIEC Average and Excess (A&E) allocator is heavily weighted toward assigning  
20 costs based on peak resulting in a disproportionate assignment of production costs to  
21 the Residential Class. I strongly believe that A&4CP allocation method results in a  
22 reasonable balance in cost assignment that meaningfully reflects both average  
23 energy use and peak demand considerations in allocating production costs among  
24 customer classes.

1     **Q.     IS THE A&E ALLOCATOR PROPOSED BY MR. BRUBAKER MORE REALISTIC THAN**  
2     **THE A&4CP ALLOCATOR?**

3     A.    No. The A&4P allocator attempts to mirror peak use that actually occurs on the  
4           system. On the other hand the A&E method proposed by MIEC and the Company  
5           allocates the Excess Demand portion of the allocator based on non coincident peaks  
6           that may exceed the actual maximum demand ever experienced on the system in the  
7           test year.

8     **Q.     MR. BRUBAKER CRITICIZES YOUR USE OF A DEMAND ALLOCATION METHOD FOR**  
9     **ALLOCATING OFF-SYSTEM SALES REVENUE ARGUING THAT THE ALLOCATION**  
10    **SHOULD BE MADE BASED ON AN ENERGY RELATED FACTOR DUE TO VARIABLE FUEL**  
11    **AND PURCHASED POWER COSTS. WHAT IS YOUR RESPONSE?**

12    A.    Mr. Brubaker's proposal to limit allocation of off-system sales to only an energy  
13           based factor is not appropriate because it fails to recognize that off-system sales  
14           revenues are dependent on variable fuel costs as well as capacity cost associated  
15           with operation of the production plants. My A&4CP and A&E 4NCP allocators  
16           specifically incorporate both an energy related component and a demand related  
17           component. Recall that in allocating production costs Mr. Brubaker wanted the  
18           Residential and SGS class to get a relatively larger share of the burden but in this  
19           case where those very facilities are used to produce cost savings he would assign  
20           less of the benefit to Residential and SGS. It is only fair that whichever method the  
21           Commission decides upon to allocate production costs the same method should be  
22           used to allocate off-system sales.



1    **Q.     MR. WARWICK CRITICIZES YOUR USE OF A WEIGHTED METER ALLOCATOR TO**  
2           **ASSIGN CLASSES A COMPONENT OF THE NON-DEMAND RELATED PORTION OF**  
3           **DISTRIBUTION PLANT ACCOUNTS INCLUDING ACCOUNT 364 – POLES TOWERS AND**  
4           **FIXTURES, 365 – OVERHEAD CONDUCTORS, 366 –UNDERGROUND CONDUIT, 367 –**  
5           **UNDERGROUND CONDUCTORS, AND 368 –LINE TRANSFORMERS. PLEASE RESPOND.**

6    **A.**    The Company identifies these costs as “customer related” and assigns each  
7           customer regardless of customer class, lot size, voltage requirements or usage the  
8           exact same amount of these costs. So an individual household is assigned the  
9           same amount of these costs as a large industrial or large commercial customer.  
10          The remainder of the costs in these accounts the Company allocates based on an  
11          Average and Excess allocator that assigns a higher relative proportion of demand  
12          related costs Residential and SGS due to their relatively lower load factor. So in  
13          my opinion nowhere in the Company’s study does it reasonably reflect a  
14          difference in the cost of connecting large customers compared to the cost of  
15          connecting small customers. I used a weighted meter allocation for the non-  
16          demand related allocation to reflect the fact that the cost of these facilities are not  
17          identical for Residential or SGS customers compared to the cost of these facilities  
18          for a large industrial or large commercial customer that is likely to have a larger  
19          lot size, higher clearance poles, heavier conductors, larger conduit and a more  
20          costly transformer.

21   **Q.     DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?**

22   **A.**    Yes.

**OPC CCOS Study Summary - A&4CP Production Demand Allocator**

		TOTAL	RES	SGS	LGS/SPS	LPS	LTS	Lighting
1	O & M EXPENSES	1,969,287,865	850,118,779	204,723,161	573,043,518	166,439,986	158,617,912	16,344,508
2	DEPREC. & AMORT. EXPENSE	408,957,318	197,410,725	47,720,485	109,604,504	27,449,801	21,413,848	5,357,955
3	TAXES	230,415,300	107,417,196	26,132,101	63,949,425	16,806,999	13,822,396	2,287,183
4								
5	TOTAL EXPENSES AND TAXES	2,608,660,483	1,154,946,701	278,575,747	746,597,447	210,696,786	193,854,156	23,989,646
6		0	0	0	0	0	0	0
7	CURRENT RATE REVENUE	2,585,401,417	1,177,189,202	288,636,756	747,206,548	189,217,082	148,358,398	34,793,431
8	OFFSETTING REVENUES:							
9	Revenue Credits	364,008,037	152,909,070	36,788,637	110,273,125	31,454,340	31,349,838	1,233,027
10								
11	Total Offsetting Revenues	364,008,037	152,909,070	36,788,637	110,273,125	31,454,340	31,349,838	1,233,027
12								
11	TOTAL CURRENT REVENUE	2,949,409,454	1,330,098,272	325,425,393	857,479,673	220,671,422	179,708,236	36,026,458
12	CLASS % OF CURRENT REVENUE	100.00%	45.10%	11.03%	29.07%	7.48%	6.09%	1.22%
13								
14	OPERATING INCOME	340,748,971	175,151,571	46,849,645	110,882,226	9,974,636	(14,145,920)	12,036,813
15								
16	TOTAL RATE BASE	6,702,797,478	3,081,842,256	757,559,016	1,895,555,784	502,803,030	413,273,737	51,763,654
17								
18	IMPLICIT RATE OF RETURN	5.08%	5.68%	6.18%	5.85%	1.98%	-3.42%	23.25%
19								
20	EQUAL RATE OF RETURN	5.08%	5.08%	5.08%	5.08%	5.08%	5.08%	5.08%
21								
22	REQUIRED OPERATING INCOME							
23	Equalized (OPC) Rates of Return	340,748,971	156,671,089	38,511,898	96,364,046	25,560,912	21,009,526	2,631,500
24								
25	TOTAL COST OF SERVICE	2,949,409,454	1,311,617,789	317,087,646	842,961,493	236,257,698	214,863,683	26,621,146
26	CLASS % of COS	100.00%	44.47%	10.75%	28.58%	8.01%	7.28%	0.90%
27								
28	MARGIN REVENUE REQUIRED							
29	to Equalize Class ROR - Revenue Neutral	2,949,409,454	1,311,617,789	317,087,646	842,961,493	236,257,698	214,863,683	26,621,146
30								
31	COS INDICATED REVENUE NEUTRAL SHIFT	(0)	(18,480,482)	(8,337,747)	(14,518,180)	15,586,275	35,155,446	(9,405,313)
32	% REVENUE NEUTRAL RATE INCREASE	0.00%	-1.57%	-2.89%	-1.94%	8.24%	23.70%	-27.03%
33	CLASS % OF REVENUE AFTER REVENUE SHIFT	100.00%	44.82%	10.84%	28.34%	7.92%	7.10%	0.98%

**OPC CCOS Study Summary - A&E 4NCP Production Demand Allocator**

		TOTAL	RES	SGS	LGS/SPS	LPS	LTS	Lighting
1	O & M EXPENSES	1,969,287,865	891,689,481	206,564,434	560,087,942	155,567,292	136,733,019	18,645,699
2	DEPREC. & AMORT. EXPENSE	419,139,538	215,890,734	49,708,980	108,475,781	23,984,562	14,674,105	6,405,376
3	TAXES	230,415,300	115,354,104	27,071,332	60,948,501	14,471,996	9,630,656	2,938,710
4								
5	TOTAL EXPENSES AND TAXES	2,618,842,703	1,222,934,319	283,344,746	729,512,224	194,023,849	161,037,780	27,989,784
6		0	0	0	0	0	0	0
7	CURRENT RATE REVENUE	2,585,401,417	1,177,189,202	288,636,756	747,206,548	189,217,082	148,358,398	34,793,431
8	OFFSETTING REVENUES:							
9	Reveue Credits	364,008,037	171,480,734	39,111,922	103,111,182	26,056,203	21,481,302	2,766,693
10								
11	Total Offsetting Revenues	364,008,037	171,480,734	39,111,922	103,111,182	26,056,203	21,481,302	2,766,693
12								
11	TOTAL CURRENT REVENUE	2,949,409,454	1,348,669,936	327,748,678	850,317,730	215,273,285	169,839,700	37,560,124
12	CLASS % OF CURRENT REVENUE	100.00%	45.73%	11.11%	28.83%	7.30%	5.76%	1.27%
13								
14	OPERATING INCOME	330,566,751	125,735,617	44,403,932	120,805,507	21,249,435	8,801,920	9,570,340
15								
16	TOTAL RATE BASE	6,702,797,478	3,314,855,519	782,185,433	1,810,751,294	432,711,614	291,619,015	70,674,604
17								
18	IMPLICIT RATE OF RETURN	4.93%	3.79%	5.68%	6.67%	4.91%	3.02%	13.54%
19								
20	EQUAL RATE OF RETURN	4.93%	4.93%	4.93%	4.93%	4.93%	4.93%	4.93%
21								
22	REQUIRED OPERATING INCOME							
23	Equalized (OPC) Rates of Return	330,566,751	163,481,147	38,575,609	89,302,142	21,340,354	14,381,988	3,485,511
24								
25	TOTAL COST OF SERVICE	2,949,409,454	1,386,415,466	321,920,355	818,814,366	215,364,204	175,419,768	31,475,295
26	CLASS % of COS	100.00%	47.01%	10.91%	27.76%	7.30%	5.95%	1.07%
27								
28	MARGIN REVENUE REQUIRED							
29	to Equalize Class ROR - Revenue Neutral	2,949,409,454	1,386,415,466	321,920,355	818,814,366	215,364,204	175,419,768	31,475,295
30								
31	COS INDICATED REVENUE NEUTRAL SHIFT	0	37,745,530	(5,828,323)	(31,503,365)	90,919	5,580,068	(6,084,829)
32	% REVENUE NEUTRAL RATE INCREASE	0.00%	3.21%	-2.02%	-4.22%	0.05%	3.76%	-17.49%
33	CLASS % OF REVENUE AFTER REVENUE SHIFT	100.00%	46.99%	10.94%	27.68%	7.32%	5.95%	1.11%