

Exhibit No.:  
Issue(s): Normalized Billing  
Units  
Witness: James R. Pozzo  
Sponsoring Party: Union Electric Company  
Type of Exhibit: Direct Testimony  
File No.: ER-2014-0258  
Date Testimony Prepared: July 3, 2014

**MISSOURI PUBLIC SERVICE COMMISSION**

**FILE NO. ER-2014-0258**

**DIRECT TESTIMONY**

**OF**

**JAMES R. POZZO**

**ON**

**BEHALF OF**

**UNION ELECTRIC COMPANY  
d/b/a Ameren Missouri**

**St. Louis, Missouri  
July, 2014**

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**DIRECT TESTIMONY**  
**OF**  
**JAMES R. POZZO**  
**FILE NO. ER-2014-0258**

**Q. Please state your name and business address.**

A. James R. Pozzo, One Ameren Plaza, 1901 Chouteau Avenue, St. Louis, Missouri 63103.

**Q. By whom are you employed and in what position?**

A. I am employed by Union Electric Company d/b/a Ameren Missouri (“Ameren Missouri” or “Company”) as a Rate Engineer in the Missouri Regulated Services Department.

**Q. Please describe your educational background, work experience and the duties of your position.**

A. I received the degree of Bachelor of Science in Mechanical Engineering from the University of Missouri-Rolla in December 1978. I began working at Union Electric Company in January 1979 in the Power Operations Department, working as an Engineer at the Ashley Plant for two years and at the Meramec Plant for five years. During this time, I was responsible for operations and maintenance support for assigned plant equipment along with various other projects as assigned.

I transferred into Union Electric’s Rate Engineering Department in September 1985. My current duties and responsibilities include assignments related to the Company’s gas and electric rates. This includes participation in regulatory proceedings,

1 conducting rate analyses, developing and interpreting gas and electric tariffs, and  
2 performing other rate or regulatory projects as assigned.

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

4 A. The purpose of my direct testimony is to develop weather normalized test  
5 year billing units for the Company's Missouri jurisdictional electric operations, to adjust  
6 for the number of days in the billing year, to account for customer growth through the  
7 proposed true-up period in this case (through December 2014), and adjust sales for solar  
8 installations during the test year.

9 **Q. Please explain what is meant by the term "billing unit."**

10 A. A billing unit is a quantity of electric customers and usage (kilowatt-  
11 hours), demand (kilowatts), or reactive demand (kilovar) data to which filed rates are  
12 applied in determining customers' bills.

13 **Q. Please describe the billing units used by Ameren Missouri.**

14 A. Ameren Missouri uses the following billing units: a) customer count;  
15 b) kilowatt-hours ("kWh"), which are energy units; c) kilowatts, which are demand units;  
16 and d) kilovars, which are units of reactive demand. Depending on a customer's rate  
17 class, two or more of these components are used to bill virtually all customers. The  
18 weather normalized billing units I developed in this case are a compilation of the  
19 individual customer billing units that occurred during the study period, adjusted to reflect  
20 normal weather. The study period is the test year consisting of the twelve months ending  
21 March 31, 2014. The weather normalized billing units were also adjusted for customer  
22 growth to March 2014 and anticipated customer growth through December 2014, as  
23 noted earlier.

1           **Q.     What was the initial step you took in the development of the**  
2 **Company's billing units for each customer class?**

3           A.     Existing Company reports contain aggregate kilowatt-hour sales and  
4 revenues on a monthly basis for the Residential, Small General Service, Large General  
5 Service, Small Primary Service, Large Primary Service, and Large Transmission Service  
6 rate classes. I then used the Company's Data Warehouse to retrieve more detailed  
7 monthly billing units that can be priced at the Company's filed rates to calculate customer  
8 revenues. The Data Warehouse stores individual customer data which can be queried to  
9 provide summaries of billing data both by revenue month, which is the month for which  
10 the data was reported, and the primary month, which is the month the data should have  
11 been reflected in customer bills. I used this system to assemble the billing data in the  
12 proper primary month. I then applied the rates in effect during the test year for each  
13 specific rate class to the billing units for each class. This results in the "Calculated  
14 Revenue" for each class.

15           **Q.     Do the revenues calculated from this process exactly match the**  
16 **revenues reported on the Company's books for the same time period?**

17           A.     While the comparison of calculated revenue and reported revenue match  
18 closely, there will always be some difference between the two. The difference results  
19 from billing adjustments that are made to a number of accounts each month due to  
20 corrected billings and initial and final bills.

21           **Q.     Did you analyze all of the rate classes using the billing unit reports?**

22           A.     No, I analyzed all but two of the rate classes in the same way. I used more  
23 detailed data for the Large Primary Service class, obtaining individual customer data.

1 This was done because the Large Primary Service class contains only approximately  
2 seventy customers that are generally the largest customers. The Large Transmission  
3 Class contains only one customer, so I used actual bills along with the Data Warehouse  
4 information to complete the data for that class.

5 **Q. After you verified the billing units associated with the Company's**  
6 **reported revenues, how were these billing units and revenues adjusted to reflect**  
7 **normal weather?**

8 A. I used the Company's weather adjustment ratios for each billing month to  
9 adjust the monthly reported sales to weather normalized sales. The kilowatt-hours in all  
10 of the rate blocks were adjusted by the weather ratios and the resulting units were priced  
11 at the January 2013 rates to develop normalized billing units and revenues.

12 **Q. How were the billing units and revenues adjusted to a 365-day test**  
13 **year?**

14 A. The Company's annual kWh adjustment for each rate class was used to  
15 factor all the kWhs in each rate class in order to adjust to a 365-day test year. The  
16 revenue impact from this adjustment was calculated from the kWh adjustments.

17 **Q. How were the billing units adjusted for customer growth?**

18 A. The weather normalized billing units were adjusted for customer growth  
19 by multiplying the monthly usage per customer by the customer counts as of March 31,  
20 2014, and then again using forecast customer counts for December 31, 2014, the end of  
21 the proposed true-up period.

22 **Q. How were the billing units and revenues adjusted for the test year**  
23 **customer solar panel installations?**

1           A.     The Company's monthly kWh adjustments for each rate class were used to  
2 factor all the kWhs in each month for each rate class in order to annualize sales and  
3 revenues to reflect the impact of solar installations during the test year. The revenue  
4 impact from this adjustment was calculated from the adjusted kWhs. The resulting  
5 revenue, calculated from the 365-day adjustment and growth adjusted billing units, was  
6 then used to adjust the normalized billing units for solar installations to calculate the total  
7 growth adjusted revenues.

8           **Q.     Please describe the information contained on your schedules.**

9           A.     The growth adjusted normal monthly billing units were divided into the  
10 summer and winter billing periods for presentation on Schedules JRP-1 through JRP-6,  
11 attached hereto. Schedule JRP-7 is a summary of the billing unit kilowatt-hours and  
12 revenues. These weather normalized and growth adjusted revenues and billing units are  
13 used by Company witness William R. Davis in his development of the Company's  
14 proposed rates in this case. The normalized and growth adjusted revenues are also used  
15 by Company witness Laura Moore as an adjustment to revenues in Ms. Moore's cost of  
16 service study.

17           **Q.     What was the result of your billing units analysis?**

18           A.     My analysis provides the normal billing units to be used to develop  
19 proposed rates. The study shows that revenues related to weather normalization must be  
20 decreased by \$58.7 million. An adjustment of negative \$4.7 million is required to adjust  
21 to a 365-day test year. An adjustment of positive \$4.4 million is needed to account for  
22 customer growth through March 2014 and an additional \$15.8 million needed to account  
23 for customer growth through December 2014. An adjustment of negative \$1.0 million is

1 needed to account for solar installations. All of these adjustments were utilized by Ms.  
2 Moore in her cost of service study.

3 **Q. Does the Company intend to revise its billing units and associated test**  
4 **year revenue to reflect a more recent twelve month period as this case progresses?**

5 A. Yes. In the Company's last three cases, both the Company and Staff  
6 moved the test year billing units forward in order to reflect a more current twelve month  
7 period. The Company anticipates that rather than relying on the twelve months ended  
8 March 2014 data, a more current period (e.g., twelve months ended December 2014) will  
9 be utilized to allow the most current billing unit information possible to be used to set  
10 rates in this case.

11 **Q. Does this conclude your direct testimony?**

12 A. Yes, it does.

**Residential Service Rate  
Ameren Missouri  
Weather Normalized-12 months ending March 2014  
Growth to December 2014**

Billing Components

<u>Summer (June - September)</u>		Rate	Units	\$
Customer Charge	Per Month	\$8.00	4,173,662	\$33,389,292
Customer Charge TOD	Per Month	\$16.81	137	\$2,296
Energy Charge:				
All Kwh	Cents per Kwh	11.36 ¢	4,577,328,502	\$519,984,518
TOD On Peak	Cents per Kwh	16.51 ¢	80,974	\$13,369
TOD Off Peak	Cents per Kwh	6.76 ¢	134,977	\$9,124
Energy Efficiency	Cents per Kwh	0.12 ¢	4,577,544,453	\$5,493,053
Opt Out EE	Cents per Kwh	-0.12 ¢	4,828	-\$6
<u>Winter (October - May)</u>				
Customer Charge	Per Month	\$8.00	8,357,477	\$66,859,814
Customer Charge TOD	Per Month	\$16.81	277	\$4,659
Energy Charge:				
0- 750 Kwh	Cents per Kwh	8.08 ¢	4,644,204,501	\$375,251,724
All Kwh Over 750	Cents per Kwh	5.38 ¢	4,150,700,143	\$223,307,668
TOD On Peak	Cents per Kwh	9.74 ¢	124,698	\$12,146
TOD Off Peak	Cents per Kwh	4.82 ¢	269,826	\$13,006
Energy Efficiency	Cents per Kwh	0.07 ¢	8,795,299,168	\$6,156,709
Opt Out EE		-0.07 ¢	8,828	-\$6
			13,372,843,621	\$1,230,497,365
Low Income Charge	Per Month	\$0.03	12,531,552	\$375,947



**Small General Service Rate Comparison  
Ameren Missouri  
Weather Normalized-12 months ending March 2014  
Growth to December 2014**

Billing Components

<u>Summer (June - September)</u>		Rate	Units	\$
Customer Charge:				
Single Phase Service	Per Month	\$9.74	366,150	\$3,566,301
Three Phase Service	Per Month	\$19.49	151,175	\$2,946,398
Single Phase Service TOD	Per Month	\$19.53	2,385	\$46,579
Three Phase Service TOD	Per Month	\$39.05	511	\$19,943
Lighting Cust Chrg	Per Month	\$6.38	22,875	\$145,942
Energy Charge:				
All Kwh	Cents per Kwh	10.34 ¢	1,176,385,138	\$121,638,223
TOD On Peak	Cents per Kwh	15.35 ¢	10,805,025	\$1,658,571
TOD Off Peak	Cents per Kwh	6.25 ¢	19,067,081	\$1,191,693
Energy Efficiency	Cents per Kwh	0.04 ¢	1,206,257,244	\$482,503
Opt Out EE	Cents per Kwh	-0.04 ¢	1,361,701	-\$545
<u>Winter (October - May)</u>				
Customer Charge:				
Single Phase Service	Per Month	\$9.74	732,166	\$7,131,293
Three Phase Service	Per Month	\$19.49	302,499	\$5,895,710
Single Phase Service TOD	Per Month	\$19.53	4,751	\$92,786
Three Phase Service TOD	Per Month	\$39.05	1,014	\$39,613
Lighting Cust Chrg	Per Month	\$6.38	45,748	\$291,870
Energy Charge:				
Base Use	Cents per Kwh	7.71 ¢	1,688,470,149	\$130,181,048
Seasonal Use	Cents per Kwh	4.45 ¢	522,451,305	\$23,249,083
TOD On Peak	Cents per Kwh	10.11 ¢	18,895,363	\$1,910,321
TOD Off Peak	Cents per Kwh	4.64 ¢	34,732,919	\$1,611,607
Energy Efficiency	Cents per Kwh	0.03 ¢	2,264,549,736	\$679,365
Opt Out EE	Cents per Kwh	-0.03 ¢	3,610,058	-\$1,083
			3,470,806,980	\$302,777,223

**Large General Service Rate Comparison  
Ameren Missouri  
Weather Normalized-12 months ending March 2014  
Growth to December 2014**

Billing Components

<u>Summer (June - September)</u>		Rate	Units	\$
Customer Charge	Per Month	\$88.32	41,449	\$3,660,804
Customer Charge TOD	Per Month	\$107.82	164	\$17,637
Energy Charge (¢ per kWh)				
	First 150 kWh per KW	9.89 ¢	1,163,123,672	\$115,032,931
	Next 200 kWh per KW	7.44 ¢	1,263,783,662	\$94,025,504
	All over 350 kWh per KW	5.00 ¢	504,528,272	\$25,226,414
	TOD On Peak Adjust. per Kwh	1.17 ¢	5,589,865	\$65,401
	TOD Off Peak Adjust. per Kwh	-0.66 ¢	11,780,036	-\$77,748
	Energy Efficiency per Kwh	0.08 ¢	2,931,435,606	\$2,345,148
	Opt Out EE per Kwh	-0.08 ¢	61,561,735	-\$49,249
Demand				
	Per KW of Billing Demand	\$4.62	8,516,045	\$39,344,128
<u>Winter (October - May)</u>				
Customer Charge	Per Month	\$88.32	82,853	\$7,317,570
Customer Charge TOD	Per Month	\$107.82	312	\$33,631
Energy Charge (¢ per kWh)				
	First 150 kWh per KW	6.23 ¢	1,894,055,751	\$117,999,673
	Next 200 kWh per KW	4.62 ¢	2,061,036,697	\$95,219,895
	All over 350 kWh per KW	3.63 ¢	848,824,811	\$30,812,341
	Seasonal Energy Charge	3.63 ¢	437,409,324	\$15,877,958
	TOD On Peak Adjust. per Kwh	0.35 ¢	8,747,861	\$30,618
	TOD Off Peak Adjust. per Kwh	-0.20 ¢	18,866,345	-\$37,733
	Energy Efficiency per Kwh	0.05 ¢	5,241,326,584	\$2,620,663
	Opt Out EE per Kwh	-0.05 ¢	106,807,282	-\$53,404
Demand				
	Per KW of Billing Demand	\$1.71	16,053,326	\$27,451,187
			8,172,762,190	\$576,863,372
Low Income Charge	Per Month	\$0.50	124,778	\$62,389

**Small Primary Service Rate Comparison  
Ameren Missouri  
Weather Normalized-12 months ending March 2014  
Growth to December 2014**

Billing Components

<u>Summer (June - September)</u>	Rate	Units	\$
Customer Charge Per Month	\$299.60	2,581	\$773,221
Customer Charge TOD Per Month	\$319.10	80	\$25,440
Energy Charge (¢ per kWh)			
First 150 kWh per KW	9.56 ¢	426,374,728	\$40,761,424
Next 200 kWh per KW	7.20 ¢	518,519,003	\$37,333,368
All over 350 kWh per KW	4.83 ¢	362,631,332	\$17,515,093
TOD On Peak Adjust. per Kwh	0.85 ¢	14,767,819	\$125,526
TOD Off Peak Adjust. per Kwh	-0.48 ¢	30,611,835	-\$146,937
Energy Efficiency per Kwh	0.09 ¢	1,307,525,062	\$1,176,773
Opt Out EE per Kwh	-0.09 ¢	85,416,638	-\$76,875
Demand			
Per KW of Billing Demand	\$3.82	2,904,959	\$11,096,944
Billing Kvars	35 ¢	539,541	\$188,839
Rider B 34kv			
Per KW	114 ¢	325,931	-\$371,561
Rider B 138kv			
Per KW	135 ¢	2,354	-\$3,178
 <u>Winter (October - May)</u>			
Customer Charge Per Month	\$299.60	5,179	\$1,551,647
Customer Charge TOD Per Month	\$319.10	155	\$49,576
Energy Charge (¢ per kWh)			
First 150 kWh per KW	6.02 ¢	705,889,897	\$42,494,572
Next 200 kWh per KW	4.47 ¢	869,363,383	\$38,860,543
All over 350 kWh per KW	3.50 ¢	623,212,439	\$21,812,435
Seasonal Energy Charge	3.50 ¢	175,041,509	\$6,126,453
TOD On Peak Adjust. per Kwh	0.32 ¢	24,528,233	\$78,490
TOD Off Peak Adjust. per Kwh	-0.17 ¢	51,839,857	-\$88,128
Energy Efficiency per Kwh	0.06 ¢	2,373,507,227	\$1,424,104
Opt Out EE per Kwh	-0.06 ¢	166,671,696	-\$100,003
Demand			
Per KW of Billing Demand	\$1.39	5,321,815	\$7,397,322
Billing Kvars	35 ¢	837,881	\$293,258
Rider B 34kv			
Per KW	114 ¢	610,802	-\$696,315
Rider B 138kv			
Per KW	135 ¢	4,180	-\$5,642
		3,681,032,289	\$227,596,391
Low Income Charge Per Month	\$0.50	7,995	\$3,997

**Large Primary Service Rate Comparison  
Ameren Missouri  
Weather Normalized-12 months ending March 2014  
Growth to December 2014**

Billing Components

Summer (June - September)

		Rate	Units	\$
Customer Charge	Per Month	\$299.60	264	\$79,094
Customer Charge TOD	Per Month	\$319.10	16	\$5,106
Demand Charge	Per KW of Billing Demand	\$19.36	2,504,099	\$48,479,349
Energy Charge:				
All Kwh	Cents per Kwh	3.24 ¢	1,385,749,576	\$44,898,286
TOD On Peak Adjust. per Kwh		0.63 ¢	32,635,950	\$205,606
TOD Off Peak Adjust. per Kwh		-0.35 ¢	70,714,352	-\$247,500
Energy Efficiency per Kwh (Total Minus Opt Out Kwh)		0.04 ¢	687,348,594	\$274,939
Reactive Charge	Cents per kVar	35 ¢	201,442	\$70,505
Rider B 34kv	Per KW	114 ¢	716,581	-\$816,902
Rider B 138kv	Per KW	135 ¢	195,217	-\$263,543

Winter (October - May)

Customer Charge	Per Month	\$299.60	528	\$158,189
Customer Charge TOD	Per Month	\$319.10	32	\$10,211
Demand Charge	Per KW of Billing Demand	\$8.79	4,577,734	\$40,238,279
Energy Charge:				
All Kwh	Cents per Kwh	2.87 ¢	2,482,782,421	\$71,255,855
TOD On Peak Adjust. per Kwh		0.29 ¢	62,531,709	\$181,342
TOD Off Peak Adjust. per Kwh		-0.15 ¢	129,368,267	-\$194,052
Energy Efficiency per Kwh (Total Minus Opt Out Kwh)		0.03 ¢	1,199,160,799	\$359,748
Reactive Charge	Cents per kVar	35 ¢	335,928	\$117,575
Rider B 34kv	Per KW	114 ¢	1,320,669	-\$1,505,562
Rider B 138kv	Per KW	135 ¢	388,503	-\$524,479
			3,868,531,997	\$202,782,047
Low Income Charge	Per Month	\$50.00	840	\$42,000

**Large Transmission Service Rate  
Ameren Missouri  
Weather Normalized-12 months ending March 2014  
Growth to December 2014**

Billing Components

<u>Summer (June - September)</u>		Rate	Units	\$
Customer Charge	Per Month	\$299.60	4	\$1,198
Customer Charge TOD	Per Month	\$319.10		
Demand Charge	Per KW of Billing Demand	\$14.30	1,942,623	\$27,779,507
Energy Charge:				
All Kwh	Cents per Kwh	2.715 ¢	1,402,277,806	\$38,071,842
Line Loss Kwh	Cents per Kwh	3.67 ¢	49,079,723	\$1,801,226
TOD On Peak Adjust. per Kwh		0.55 ¢	0	\$0
TOD Off Peak Adjust. per Kwh		-0.31 ¢	0	\$0
Reactive Charge	Cents per kVar	35 ¢	0	\$0

Winter (October - May)

Customer Charge	Per Month	\$299.60	8	\$2,397
Customer Charge TOD	Per Month	\$319.10		\$0
Demand Charge	Per KW of Billing Demand	\$5.46	3,888,030	\$21,228,643
Energy Charge:				
All Kwh	Cents per Kwh	2.391 ¢	2,796,175,185	\$66,856,549
Line Loss Kwh	Cents per Kwh	3.67 ¢	97,866,133	\$3,591,687
TOD On Peak Adjust. per Kwh		0.25 ¢	0	\$0
TOD Off Peak Adjust. per Kwh		-0.14 ¢	0	\$0
Reactive Charge	Cents per kVar	35 ¢	0	\$0
			4,198,452,991	\$159,333,049
Low Income Charge	Per Month	\$1,500.00	12	\$18,000

**Ameren Missouri**  
**Weather Normalized-12 months ending March 2014**  
**Growth to December 2014**  
**Excluding Low Income Revenues**

	<u>Normal Bill Unit MWH</u>	<u>Billing Unit Revenue</u>
Residential	13,372,844	\$1,230,497,365
Small General Service	3,470,807	\$302,777,223
Large General Service	8,172,762	\$576,863,372
Small Primary Service	3,681,032	\$227,596,391
Large Primary Service	3,868,532	\$202,782,047
Large Transmission Service	4,198,453	\$159,333,049
Lighting	215,587	\$37,876,368
MSD	<u>27</u>	<u>\$73,018</u>
Total	36,980,044	\$2,737,798,832

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 ) Case No. ER-2014-0258  
Increase Its Revenues for Electric Service. )

AFFIDAVIT OF JAMES R. POZZO

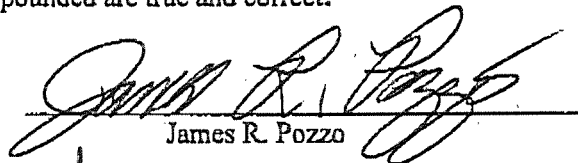
STATE OF MISSOURI )  
) ss  
CITY OF ST. LOUIS )

James R. Pozzo, being first duly sworn on his oath, states:

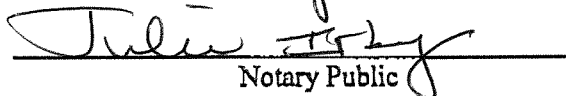
1. My name is James R. Pozzo. I work in the City of St. Louis, Missouri, and I am employed by Union Electric Company d/b/a Ameren Missouri as a Rate Engineer in the Missouri Regulated Services Department.

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 6 pages and Schedule(s) JRP-1 through JRP-7, 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.

  
James R. Pozzo

Subscribed and sworn to before me this 3rd day of July, 2014.

  
Notary Public

My commission expires: 1/15/2017

