

Exhibit No.:
Issues: Normalized Billing Units
Witness: James R. Pozzo
Sponsoring Party: Union Electric Company
Type of Exhibit: Direct Testimony
Case No.: ER-2008-____
Date Testimony Prepared: April 1, 2008

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2008-____

DIRECT TESTIMONY

OF

JAMES R. POZZO

ON

BEHALF OF

**UNION ELECTRIC COMPANY
d/b/a AmerenUE**

**St. Louis, Missouri
April, 2008**

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

3 **II. DEVELOPMENT OF WEATHER NORMALIZED BILLING UNITS**

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

5 A. The purpose of my direct testimony is to develop weather normalized test year
6 billing units for the Company's Missouri jurisdictional electric operations, adjusting revenues
7 to reflect the rate increase implemented in June, 2007 as a result of the Company's last rate
8 proceeding, to account for customer growth through the proposed updated test year in this
9 case (through June 30, 2008) and to adjust February revenues to account for the effect of
10 Leap Year. AmerenUE witness Wilbon L. Cooper addresses the customer growth adjustment
11 in detail in his direct testimony. An Executive Summary of my testimony is included in
12 Attachment A of Mr. Cooper's direct testimony.

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

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

17 **Q. Please describe the billing units used by AmerenUE.**

18 A. AmerenUE uses a) customer count; b) kilowatt-hours, which are energy units;
19 c) kilowatts, which are demand units; and d) kilovars, which are units of reactive demand.
20 Depending on a customer's rate class, two or more of these components are used to bill
21 virtually all customers. The weather normalized billing units I developed in this case are a
22 compilation of the individual customer billing units which occurred during the study period,
23 adjusted to reflect normal weather. The study period is the test year consisting of the twelve

1 months ending March 31, 2008, including nine months of actual data and three months of
2 budgeted data. The weather normalized billing units were also adjusted for anticipated
3 customer growth through June 30, 2008, as noted earlier.

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

6 A. Existing Company reports contain aggregate kilowatt-hour sales and revenues
7 on a monthly basis for the Residential, Small General Service, Large General Service, Small
8 Primary Service, Large Primary Service and Large Transmission Service rate classes. A
9 more detailed monthly report provides the billing units that can be priced at the Company's
10 filed rates to calculate customer revenues. This report provides billing data both by revenue
11 month, which is the month for which the data was reported, and the primary month, which is
12 the month the data should have been reflected in customer bills. I used this report to
13 assemble the billing data in the proper primary month. I then applied the rates that took
14 effect in June 2007 (to reflect the rate increase obtained in the Company's last rate case) for
15 each specific rate class to the billing units for that class. This results in the "calculated
16 revenue" for each class.

17 **Q. Do the revenues calculated from this process exactly match the revenues**
18 **indicated on the Company's books ("reported revenue") for the same time period?**

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

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

2 A. Yes, I analyzed all of the rate classes in the same way but I used more detailed
3 data for the Large Primary Service class to adjust for customers who have moved into or out
4 of the Large Primary Service class and I used actual bills to complete the data for the Large
5 Transmission Service class. The Large Primary Service class contains only approximately
6 sixty customers who are generally the largest customers, and the Large Transmission Class
7 has one large customer.

8 **Q. Was there an adjustment made to reflect the rate increase in 2007?**

9 A. Yes, as earlier noted, I priced the actual billing units at the rates in effect early
10 in the year and again at the rates reflecting the increase implemented in June, 2007. This
11 provided verification of the reported revenues. The rate increase in 2007 was calculated by
12 pricing April and May 2007 billing units using rates in effect early in the year and the rates
13 that became effective in June, 2007. The difference I calculated in these months along with
14 the difference between reported and calculated revenues for June, 2007, was the amount that
15 the actual revenues were adjusted to annualize actual revenues for the rate increase. The
16 effect of the rate increase was calculated differently for June because customers' bills were
17 prorated during that month; that is, part of the month was billed at prior rates and the
18 remainder of the month billed at the new rates.

19 **Q. Was the Lighting class rate increase adjustment calculated using the**
20 **same method as the method used for the other rate classes?**

21 A. No, the Lighting class rate increase adjustment was calculated using the
22 Lighting percent increase for April and May, and prorating the increase for June.

1 **Q. After you verified the billing units associated with the Company's**
2 **reported revenues and annualized to reflect the June, 2007 rate increase, how were**
3 **these billing units and revenues adjusted to reflect normal weather?**

4 A. I used weather adjustment ratios provided in the direct testimony of Company
5 witness Steven M. Wills for each billing month to adjust the monthly reported sales to
6 weather normalized sales. The kilowatt-hours in all of the rate blocks were adjusted by the
7 weather ratios and the resulting units were priced at current rates to develop normalized
8 billing units and revenues.

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

10 A. The weather normalized billing units were adjusted for customer growth by
11 multiplying the monthly usage per customer by the customer counts as of March, 2008 (to
12 take into account the use of three months of budgeted data in the test year), and then again
13 using customer counts as of June, 2008 (to capture the proposed updated test year period), to
14 calculate the customer growth through June, 2008. The revenues were also adjusted for the
15 extra day in the test year due to Leap Year by dividing the February revenue by 29. The
16 resulting revenue, calculated from the growth adjusted billing units and day adjustment, was
17 then used to adjust the normalized billing units to calculate to the total growth adjusted
18 revenues. The growth adjusted normal monthly billing units were then divided into the
19 summer and winter billing periods for presentation on Schedules JRP-E1 through JRP-E6,
20 attached hereto. Schedule JRP-E7 is a summary of the billing unit kilowatt-hours and
21 revenues. These weather normalized, growth adjusted revenues and billing units are used by
22 Mr. Cooper, in his development of the Company's proposed rates in this case. The

1 normalized and growth adjusted revenues are also used by Company witness Gary S. Weiss
2 as an adjustment to revenues in Mr. Weiss' cost of service study.

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

4 A. My analysis provides the normal billing units to be used to develop proposed
5 rates. Annualizing the rate increase implemented in 2007 accounted for a positive \$1.4
6 million adjustment to revenues. The study also shows that revenues related to weather
7 normalization must be reduced by \$80.4 million and then increased by approximately \$13.9
8 million to account for growth through June 30, 2008. An adjustment of -\$5.3 million is
9 required to account for the Leap Year. All of these adjustments were utilized by Mr. Weiss
10 in his cost of service study.

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

12 A. Yes, it does.

**Residential Service Rate
AmerenUE - Missouri
Weather Normalized-12 months ending March 2008
January-March Forecast**

<u>Billing Components</u>		<u>Present</u>
<u>Summer (June - September)</u>		
Customer Charge	Per Month	\$7.25
Customer Charge TOD	Per Month	\$15.00
Energy Charge:		
All Kwh	Cents per Kwh	7.920 ¢
TOD On Peak	Cents per Kwh	11.51 ¢
TOD Off Peak	Cents per Kwh	4.72 ¢
<u>Winter (October - May)</u>		
Customer Charge	Per Month	\$7.25
Customer Charge TOD	Per Month	\$15.00
Energy Charge:		
0- 750 Kwh	Cents per Kwh	5.620 ¢
All Kwh Over 750	Cents per Kwh	3.780 ¢
TOD On Peak	Cents per Kwh	6.79 ¢
TOD Off Peak	Cents per Kwh	3.36 ¢

Proof of Revenue			
	<u>Units</u>	<u>Rate</u>	<u>\$1,000</u>
<u>Summer</u>			
Customer Charge	4,123,504	\$7.25	\$29,895
Customer Charge TOD	159	\$15.00	\$2
Mwh	4,843,470	\$0.07920	\$383,603
TOD On Peak Kwh	97	\$0.11510	\$11
TOD Off Peak Kwh	169	\$0.04720	\$8
	<u>4,843,736</u>		<u>\$413,520</u>
<u>Winter</u>			
Customer Charge	8,259,719	\$7.25	\$59,883
Customer Charge TOD	310	\$15.00	\$5
0-750 Mwh	4,971,379	\$0.05620	\$279,391
Over 750 Mwh	3,644,261	\$0.03780	\$137,753
TOD On Peak Kwh	151	\$0.06790	\$10
TOD Off Peak Kwh	337	\$0.03360	\$11
Total MWH	<u>8,616,128</u>		<u>\$477,054</u>
Total Res	13,459,864		\$890,574

**Small General Service Rate Comparison
AmerenUE - Missouri
Weather Normalized-12 months ending March 2008
January-March Forecast**

<u>Billing Components</u>	<u>Present</u>
<u>Summer (June - September)</u>	
Customer Charge:	
Single Phase Service	Per Month \$7.46
Three Phase Service	Per Month \$15.52
Single Phase Service TOD	Per Month \$15.42
Three Phase Service TOD	Per Month \$30.83
Energy Charge:	
All Kwh	Cents per Kwh 7.63 ¢
TOD On Peak	Cents per Kwh 11.32 ¢
TOD Off Peak	Cents per Kwh 4.61 ¢
<u>Winter (October - May)</u>	
Customer Charge:	
Single Phase Service	Per Month \$7.46
Three Phase Service	Per Month \$15.52
Single Phase Service TOD	Per Month \$15.42
Three Phase Service TOD	Per Month \$30.83
Energy Charge:	
Base Use	Cents per Kwh 5.68 ¢
Seasonal Use	Cents per Kwh 3.29 ¢
TOD On Peak	Cents per Kwh 7.45 ¢
TOD Off Peak	Cents per Kwh 3.42 ¢

Proof of Revenue			
	<u>Units</u>	<u>Rate</u>	<u>1000's</u>
<u>Summer</u>			
Customer Charge - Single Phase	379,021	\$7.46	\$2,827
Customer Charge - Three Phase	147,349	\$15.52	\$2,287
Single Phase Service TOD	1,063	\$15.42	\$16
Three Phase Service TOD	285	\$30.83	\$9
Mwh	1,299,773	\$0.0763	\$99,173
TOD On Peak Kwh	2,983	\$0.1132	\$338
TOD Off Peak Kwh	5,946	\$0.0461	\$274
Summer Total MWH	<u>1,308,702</u>		<u>\$104,924</u>
<u>Winter</u>			
Customer Charge - Single Phase	760,281	\$7.46	\$5,672
Customer Charge - Three Phase	295,818	\$15.52	\$4,591
Single Phase Service TOD	2,135	\$15.42	\$33
Three Phase Service TOD	563	\$30.83	\$17
Winter Base Mwh	1,965,168	\$0.0568	\$111,622
Winter Seasonal Mwh	401,584	\$0.0329	\$13,212
TOD On Peak Kwh	5,799	\$0.0745	\$432
TOD Off Peak Kwh	10,760	\$0.0342	\$368
Winter Total MWH	<u>2,383,311</u>		<u>\$135,947</u>
Total	3,692,013		\$240,871

**Large General Service Rate Comparison
AmerenUE - Missouri
Weather Normalized-12 months ending March 2008
January-March Forecast**

<u>Billing Components</u>	<u>Present</u>
<u>Summer (June - September)</u>	
Customer Charge Per Month	\$67.11
Customer Charge TOD Per Month	\$81.28
Energy Charge (¢ per kWh)	
First 150 kWh per KW	7.51 ¢
Next 200 kWh per KW	5.66 ¢
All over 350 kWh per KW	3.80 ¢
TOD On Peak Adjust. per Kwh	0.89 ¢
TOD Off Peak Adjust. per Kwh	-0.50 ¢
Demand	
Per KW of Billing Demand	\$3.51
<u>Winter (October - May)</u>	
Customer Charge Per Month	\$67.11
Customer Charge TOD Per Month	\$81.28
Energy Charge (¢ per kWh)	
First 150 kWh per KW	4.73 ¢
Next 200 kWh per KW	3.51 ¢
All over 350 kWh per KW	2.76 ¢
Seasonal Energy Charge	2.76 ¢
TOD On Peak Adjust. per Kwh	0.27 ¢
TOD Off Peak Adjust. per Kwh	-0.15 ¢
Demand	
Per KW of Billing Demand	\$1.30

Proof of Revenue			
	<u>Units</u>	<u>Rate</u>	<u>\$1,000</u>
<u>Summer</u>			
Customer Charge	39,566	\$67.11	\$2,655
Customer Charge TOD	117	\$81.28	\$10
Summer Energy Mwh			
0-150 hours	1,146,088	\$0.0751	\$86,071
151-350 hours	1,283,471	\$0.0566	\$72,644
Over 350 hours	563,848	\$0.0380	\$21,426
Seasonal	-183	\$0.0000	\$0
TOD On Peak	2,752	\$0.0089	\$24
TOD Off Peak	4,004	-\$0.0050	-\$20
Demand	8,560,414	\$3.51	\$30,047
			<u>\$212,858</u>
<u>Winter</u>			
Customer Charge	79,289	\$67.11	\$5,321
Customer Charge TOD	244	\$81.28	\$20
Winter Energy Mwh			
0-150 hours	1,970,806	\$0.0473	\$93,219
151-350 hours	2,133,784	\$0.0351	\$74,896
Over 350 hours	838,397	\$0.0276	\$23,140
Seasonal	391,216	\$0.0276	\$10,798
TOD On Peak	4,659	\$0.0027	\$13
TOD Off Peak	6,912	-\$0.0015	-\$10
Demand	15,985,735	\$1.30	\$20,781
			<u>\$228,177</u>
	8,327,427		\$441,035

**Small Primary Service Rate Comparison
AmerenUE - Missouri
Weather Normalized-12 months ending March 2008
January-March Forecast**

<u>Billing Components</u>	<u>Present</u>
<u>Summer (June - September)</u>	
Customer Charge Per Month	\$217.25
Customer Charge TOD Per Month	\$231.42
Energy Charge (¢ per kWh)	
First 150 kWh per KW	7.26 ¢
Next 200 kWh per KW	5.47 ¢
All over 350 kWh per KW	3.68 ¢
TOD On Peak Adjust. per Kwh	0.65 ¢
TOD Off Peak Adjust. per Kwh	-0.36 ¢
Demand	
Per KW of Billing Demand	\$2.91
Billing Kvars	25 ¢
Rider B 34kv	
Per KW	83 ¢
Rider B 138kv	
Per KW	98 ¢
<u>Winter (October - May)</u>	
Customer Charge Per Month	\$217.25
Customer Charge TOD Per Month	\$231.42
Energy Charge (¢ per kWh)	
First 150 kWh per KW	4.57 ¢
Next 200 kWh per KW	3.40 ¢
All over 350 kWh per KW	2.67 ¢
Seasonal Energy Charge	2.67 ¢
TOD On Peak Adjust. per Kwh	0.24 ¢
TOD Off Peak Adjust. per Kwh	-0.13 ¢
Demand	
Per KW of Billing Demand	\$1.06
Billing Kvars	25 ¢
Rider B 34kv	
Per KW	83 ¢
Rider B 138kv	
Per KW	98 ¢

Proof of Revenue			
	<u>Units</u>	<u>Rate</u>	<u>\$1,000</u>
<u>Summer</u>			
Customer Charge	2,537	\$217.25	\$551
Customer Charge TOD	41	\$231.42	\$9
Summer Energy Mwh			
0-150 hours	443,391	\$0.0726	\$32,190
151-350 hours	553,056	\$0.0547	\$30,252
Over 350 hours	428,708	\$0.0368	\$15,776
Seasonal	0	\$0.0000	\$0
TOD On Peak	9,665	\$0.0065	\$63
TOD Off Peak	15,796	-\$0.0036	(\$57)
Demand	3,080,105	\$2.91	\$8,963
Billing Kvars	584,297	\$0.25	\$146
Rider B 34kv	294,646	\$0.83	(\$245)
Rider B 138kv	0	\$0.98	\$0
			\$87,650
<u>Winter</u>			
Customer Charge	5,095	\$217.25	\$1,107
Customer Charge TOD	78	\$231.42	\$18
Winter Energy Mwh			
0-150 hours	744,539	\$0.0457	\$34,025
151-350 hours	940,716	\$0.0340	\$31,984
Over 350 hours	699,558	\$0.0267	\$18,678
Seasonal	184,532	\$0.0267	\$4,927
TOD On Peak	22,641	\$0.0024	\$54
TOD Off Peak	39,425	-\$0.0013	(\$51)
Demand	5,648,366	\$1.06	\$5,987
Billing Kvars	934,213	\$0.25	\$234
Rider B 34kv	573,199	\$0.83	(\$476)
Rider B 138kv	0	\$0.98	\$0
			\$96,488
	3,994,500		\$184,138

**Large Primary Service Rate Comparison
AmerenUE - Missouri
Weather Normalized-12 months ending March 2008
January-March Forecast**

<u>Billing Components</u>		<u>Present</u>
<u>Summer (June - September)</u>		
Customer Charge	Per Month	\$217.25
Customer Charge TOD	Per Month	\$231.42
Demand Charge	Per KW of Billing Demand	\$14.35
Energy Charge:		
All Kwh	Cents per Kwh	2.4 ¢
TOD On Peak Adjust. per Kwh		0.46 ¢
TOD Off Peak Adjust. per Kwh		-0.26 ¢
Reactive Charge	Cents per kVar	25 ¢
Rider B 34kv	Per KW	83 ¢
Rider B 138kv	Per KW	98 ¢
<u>Winter (October - May)</u>		
Customer Charge	Per Month	\$217.25
Customer Charge TOD	Per Month	\$231.42
Demand Charge	Per KW of Billing Demand	\$6.52
Energy Charge:		
All Kwh	Cents per Kwh	2.12 ¢
TOD On Peak Adjust. per Kwh		0.21 ¢
TOD Off Peak Adjust. per Kwh		-0.11 ¢
Reactive Charge	Cents per kVar	25 ¢
Rider B 34kv	Per KW	83 ¢
Rider B 138kv	Per KW	98 ¢

Proof of Revenue			
	<u>Units</u>	<u>Rate</u>	<u>1000's</u>
<u>Summer</u>			
Customer Charge	256	\$217.25	\$56
Customer Charge TOD	13	\$14.17	\$0
Summer Mwh	1,500,587	\$0.0240	\$36,014
TOD On Peak	27,161	\$0.0046	\$125
TOD Off Peak	49,922	-\$0.0026	-\$130
Demand	2,705,807	\$14.35	\$38,828
Billing Kvars	287,168	0.25	\$72
Rider B 34kv	703,467	0.83	(\$584)
Rider B 138kv	181,148	0.98	(\$178)
			<u>\$74,204</u>
<u>Winter</u>			
Customer Charge	510	\$217.25	\$111
Customer Charge TOD	27	\$14.17	\$0
Winter Mwh	2,698,639	\$0.0212	\$57,211
TOD On Peak	50,297	\$0.0021	\$106
TOD Off Peak	95,470	-\$0.0011	-\$105
Demand	4,761,920	\$6.52	\$31,048
Billing Kvars	514,625	\$0.25	\$129
Rider B 34kv	1,289,328	\$0.83	(\$1,070)
Rider B 138kv	372,807	\$0.98	(\$365)
			<u>\$87,064</u>
	4,199,226		\$161,268

**Large Transmission Service Rate
AmerenUE - Missouri
Weather Normalized-12 months ending March 2008
January-March Forecast**

<u>Billing Components</u>		<u>Present</u>
<u>Summer (June - September)</u>		
Customer Charge	Per Month	\$217.25
Demand Charge	Per KW of Billing Demand	\$12.013
Energy Charge:		
All Kwh	Cents per Kwh	2.28 ¢
Line Loss Kwh	Cents per Kwh	3.08 ¢
Reactive Charge	Cents per kVar	25 ¢
 <u>Winter (October - May)</u>		
Customer Charge	Per Month	\$217.25
Demand Charge	Per KW of Billing Demand	\$4.579
Energy Charge:		
All Kwh	Cents per Kwh	2.007 ¢
Line Loss Kwh	Cents per Kwh	3.08 ¢
Reactive Charge	Cents per kVar	25 ¢

Proof of Revenue			
	<u>Units</u>	<u>Rate</u>	<u>1000's</u>
<u>Summer</u>			
Customer Charge	4	\$217.25	\$1
Summer Mwh	1,365,491	\$0.02280	\$31,133
Line Loss Mwh	47,771	\$0.03080	\$1,471
Demand	1,891,171	\$12.013	\$22,719
Billing Kvars	0	0.25	\$0
			<u>\$55,324</u>
<u>Winter</u>			
Customer Charge	8	\$217.25	\$2
Winter Mwh	2,662,504	\$0.02007	\$53,436
Line Loss Mwh	95,509	\$0.03080	\$2,942
Demand	3,602,856	\$4.58	\$16,497
Billing Kvars	0	\$0.25	\$0
			<u>\$72,877</u>
	4,027,995		\$128,201
			<u>\$128,201</u>

