

Filed
May 19, 2011
Data Center
Missouri Public
Service Commission

Exhibit No.: 148
Issues: Normalized Billing
Units
Witness: James R. Pozzo
Sponsoring Party: Union Electric Company
Type of Exhibit: Direct Testimony
Case No.: ER-2011-0028
Date Testimony Prepared: September 3, 2010

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO. ER-2011-0028

DIRECT TESTIMONY

OF

JAMES R. POZZO

ON

BEHALF OF

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

St. Louis, Missouri
September, 2010

Ameren Exhibit No. 148
Date 9/10/11 Reporter SM
File No. ER-2011-0028

1 **DIRECT TESTIMONY**

2 **OF**

3 **JAMES R. POZZO**

4 **CASE NO. ER-2011-0028**

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

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

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

9 A. I am employed by Union Electric Company d/b/a AmerenUE
10 ("AmerenUE" or "Company") as a Rate Engineer in the Missouri Regulated Services
11 Department.

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

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

20 I transferred into Union Electric's Rate Engineering Department in September
21 1985. My current duties and responsibilities include assignments related to the
22 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 revenues to reflect the rate increase implemented on June 21, 2010 as a result of the
7 Company's last rate proceeding, to adjust for the number of days in the billing year and
8 to account for customer growth through the proposed true-up period in this case (through
9 February 28, 2011).

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

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

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

15 A. AmerenUE uses the following billing units: a) customer count;
16 b) kilowatt-hours, which are energy units; c) kilowatts, which are demand units; and
17 d) kilovars, which are units of reactive demand. Depending on a customer's rate class,
18 two or more of these components are used to bill virtually all customers. The weather
19 normalized billing units I developed in this case are a compilation of the individual
20 customer billing units which occurred during the study period, adjusted to reflect normal
21 weather. The study period is the test year consisting of the twelve months ending
22 March 31, 2010. The weather normalized billing units were also adjusted for growth to
23 March 2010 and anticipated customer growth through February 2011, as 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. A more detailed monthly report provides the billing units that can be priced
7 at the Company's filed rates to calculate customer revenues. This report provides billing
8 data both by revenue month, which is the month for which the data was reported, and the
9 primary month, which is the month the data should have been reflected in customer bills.
10 I used this report to assemble the billing data in the proper primary month. I then applied
11 the rates in effect during the test year for each specific rate class to the billing units for
12 each class. This results in the "Calculated Revenue Prev" for each class.

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

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

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

20 A. No, I analyzed all but two of the rate classes in the same way. I used more
21 detailed data for the Large Primary Service class, obtaining individual customer data.
22 This was done because the Large Primary Service class contains only approximately
23 seventy customers who are generally the largest customers. The Large Transmission

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1 Class contains only one customer, so I used actual bills to complete the data for this class.
2 This customer had also experienced operational problems due to a major storm in January
3 2009, so the data used for this class was for the full operational billing units from the time
4 period prior to the storm.

5 **Q. Was there an adjustment made to reflect the rate increase on June 21,**
6 **2010?**

7 A. Yes, as noted earlier, I priced the actual billing units for the test year at the
8 rates that were in effect on March 1, 2009, and again at the rates for the increase
9 implemented on June 21, 2010. The difference in these two amounts was the amount that
10 the actual revenues were adjusted to annualize actual revenue for the rate increase.

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

13 A. No, the Lighting class rate increase adjustment was calculated using the
14 Lighting percent increase for all of the months in the test year.

15 **Q. After you verified the billing units associated with the Company's**
16 **reported revenues and annualized the results to reflect the June 21, 2010 rate**
17 **increase, how were these billing units and revenues adjusted to reflect normal**
18 **weather?**

19 A. I used weather adjustment ratios provided in the direct testimony of
20 Company witness Steven M. Wills for each billing month to adjust the monthly reported
21 sales to weather normalized sales. The kilowatt-hours in all of the rate blocks were
22 adjusted by the weather ratios and the resulting units were priced at the June 2010 rates to
23 develop normalized billing units and revenues.

1 **Q. How were the billing units and revenues adjusted to a 365 day test**
2 **year?**

3 A. The annual kWh adjustment for each rate class provided by Mr. Wills was
4 used to factor all the kWhs in each rate class in order to adjust to a 365 day test year. The
5 revenue impact from this adjustment was calculated from the kWh adjustments.

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

7 A. The weather normalized billing units were adjusted for customer growth
8 by multiplying the monthly usage per customer by the customer counts as of March 2010,
9 and then again using forecast customer counts for February 2011, the end of the proposed
10 true-up period, to calculate the customer growth through February 2011. The resulting
11 revenue, calculated from the 365-day adjustment and the growth adjusted billing units,
12 was then used to adjust the normalized billing units to calculate the total growth adjusted
13 revenues. The growth adjusted normal monthly billing units were then divided into the
14 summer and winter billing periods for presentation on Schedules JRP-E1 through
15 JRP-E6, attached hereto. Schedule JRP-E7 is a summary of the billing unit kilowatt-
16 hours and revenues. These weather normalized and growth adjusted revenues and billing
17 units are used by Company witness Wilbon L. Cooper in his development of the
18 Company's proposed rates in this case. The normalized and growth adjusted revenues are
19 also used by Company witness Gary S. Weiss as an adjustment to revenues in Mr. Weiss'
20 cost of service study.

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

22 A. My analysis provides the normal billing units to be used to develop
23 proposed rates. Annualizing the rate increase implemented in June 21, 2010, accounted

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1 for a positive \$230.7 million adjustment to revenues. The study also shows that revenues
2 related to weather normalization must be increased by \$16.5 million. An adjustment of
3 \$0.2 million is required to adjust to a 365 day test year. An adjustment of \$21.1 million
4 is needed to account for growth through February 2011. All of these adjustments were
5 utilized by Mr. Weiss in his cost of service study.

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

7 **A. Yes, it does.**

**Residential Service Rate
AmerenUE - Missouri
Weather Normalized-12 months ending March 2010
Growth to February 2011**

<u>Billing Components</u>		<u>Present</u>
<u>Summer (June - September)</u>		
Customer Charge	Per Month	\$8.03
Customer Charge TOD	Per Month	\$16.84
Energy Charge:		
All Kwh	Cents per Kwh	9.67 ¢
TOD On Peak	Cents per Kwh	14.06 ¢
TOD Off Peak	Cents per Kwh	5.76 ¢
<u>Winter (October - May)</u>		
Customer Charge	Per Month	\$8.03
Customer Charge TOD	Per Month	\$16.84
Energy Charge:		
0- 750 Kwh	Cents per Kwh	6.87 ¢
All Kwh Over 750	Cents per Kwh	4.61 ¢
TOD On Peak	Cents per Kwh	8.30 ¢
TOD Off Peak	Cents per Kwh	4.10 ¢

<u>Proof of Revenue</u>			
	<u>Units</u>	<u>Rate</u>	<u>\$,000</u>
<u>Summer</u>			
Customer Charge	4,159,561	\$8.03	\$33,401
Customer Charge TOD	143	\$16.84	\$2
Mwh	4,711,199	\$0.09670	\$455,573
TOD On Peak Mwh	75	\$0.14060	\$11
TOD Off Peak Mwh	133	\$0.05760	\$8
	<u>4,711,407</u>		<u>\$488,995</u>
<u>Winter</u>			
Customer Charge	8,332,577	\$8.03	\$66,911
Customer Charge TOD	292	\$16.84	\$5
0-750 Mwh	5,015,439	\$0.06870	\$344,561
Over 750 Mwh	4,200,388	\$0.04610	\$193,638
TOD On Peak Mwh	126	\$0.08300	\$10
TOD Off Peak Mwh	290	\$0.04100	\$12
Total MWH	<u>9,216,243</u>		<u>\$605,136</u>
Total Res	13,927,650		\$1,094,131

**Small General Service Rate Comparison
AmerenUE - Missouri
Weather Normalized-12 months ending March 2010
Growth to February 2011**

<u>Billing Components</u>	<u>Present</u>
<u>Summer (June - September)</u>	
Customer Charge:	
Single Phase Service	Per Month \$9.33
Three Phase Service	Per Month \$18.61
Single Phase Service TOD	Per Month \$18.65
Three Phase Service TOD	Per Month \$37.24
Lighting Cust Chrg	Per Month \$5.17
Energy Charge:	
All Kwh	Cents per Kwh 9.20 ¢
TOD On Peak	Cents per Kwh 13.66 ¢
TOD Off Peak	Cents per Kwh 5.56 ¢
<u>Winter (October - May)</u>	
Customer Charge:	
Single Phase Service	Per Month \$9.33
Three Phase Service	Per Month \$18.61
Single Phase Service TOD	Per Month \$18.65
Three Phase Service TOD	Per Month \$37.24
Lighting Cust Chrg	Per Month \$5.17
Energy Charge:	
Base Use	Cents per Kwh 6.86 ¢
Seasonal Use	Cents per Kwh 3.96 ¢
TOD On Peak	Cents per Kwh 8.99 ¢
TOD Off Peak	Cents per Kwh 4.12 ¢

<u>Proof of Revenue</u>			
	<u>Units</u>	<u>Rate</u>	<u>1000's</u>
<u>Summer</u>			
Customer Charge - Single Phase	359,924	\$9.33	\$3,358
Customer Charge - Three Phase	151,034	\$18.61	\$2,811
Single Phase Service TOD	1,511	\$18.65	\$28
Three Phase Service TOD	320	\$37.24	\$12
Lighting Cust Chrg	23,016	\$5.17	\$119
Mwh	1,227,775	\$0.0920	\$112,955
TOD On Peak Mwh	6,859	\$0.1366	\$937
TOD Off Peak Mwh	12,041	\$0.0556	\$669
Summer Total MWH	<u>1,246,675</u>		<u>\$120,890</u>
<u>Winter</u>			
Customer Charge - Single Phase	720,298	\$9.33	\$6,720
Customer Charge - Three Phase	302,523	\$18.61	\$5,630
Single Phase Service TOD	3,287	\$18.65	\$61
Three Phase Service TOD	704	\$37.24	\$26
Lighting Cust Chrg	46,032	\$5.17	\$238
Winter Base Mwh	1,827,617	\$0.0686	\$125,375
Winter Seasonal Mwh	478,269	\$0.0396	\$18,939
TOD On Peak Mwh	13,220	\$0.0899	\$1,188
TOD Off Peak Mwh	24,390	\$0.0412	\$1,005
Winter Total MWH	<u>2,343,496</u>		<u>\$159,183</u>
Total	3,590,171		\$280,073

**Large General Service Rate Comparison
AmerenUE - Missouri
Weather Normalized-12 months ending March 2010
Growth to February 2011**

<u>Billing Components</u>	<u>Present</u>
<u>Summer (June - September)</u>	
Customer Charge Per Month	\$79.89
Customer Charge TOD Per Month	\$96.73
Energy Charge (¢ per kWh)	
First 150 kWh per KW	8.89 ¢
Next 200 kWh per KW	6.69 ¢
All over 350 kWh per KW	4.50 ¢
TOD On Peak Adjust. per Kwh	1.05 ¢
TOD Off Peak Adjust. per Kwh	-0.59 ¢
Demand	
Per KW of Billing Demand	\$4.15
<u>Winter (October - May)</u>	
Customer Charge Per Month	\$79.89
Customer Charge TOD Per Month	\$96.73
Energy Charge (¢ per kWh)	
First 150 kWh per KW	5.60 ¢
Next 200 kWh per KW	4.15 ¢
All over 350 kWh per KW	3.26 ¢
Seasonal Energy Charge	3.26 ¢
TOD On Peak Adjust. per Kwh	0.32 ¢
TOD Off Peak Adjust. per Kwh	-0.18 ¢
Demand	
Per KW of Billing Demand	\$1.54

Proof of Revenue			
	<u>Units</u>	<u>Rate</u>	<u>\$1,000</u>
<u>Summer</u>			
Customer Charge	40,477	\$79.89	\$3,234
Customer Charge TOD	127	\$96.73	\$12
Summer Energy Mwh			
0-150 hours	1,172,089	\$0.0889	\$104,199
151-350 hours	1,265,443	\$0.0669	\$84,658
Over 350 hours	505,946	\$0.0450	\$22,768
Seasonal	-375	\$0.0000	\$0
TOD On Peak	2,656	\$0.0105	\$28
TOD Off Peak	3,949	-\$0.0059	-\$23
Demand	8,498,894	\$4.15	\$35,270
			\$250,145
<u>Winter</u>			
Customer Charge	80,343	\$79.89	\$6,419
Customer Charge TOD	252	\$96.73	\$24
Winter Energy Mwh			
0-150 hours	1,916,223	\$0.0560	\$107,308
151-350 hours	2,071,824	\$0.0415	\$85,981
Over 350 hours	885,783	\$0.0326	\$28,877
Seasonal	404,827	\$0.0326	\$13,197
TOD On Peak	4,115	\$0.0032	\$13
TOD Off Peak	6,402	-\$0.0018	-\$12
Demand	15,606,076	\$1.54	\$24,033
			\$265,841
	8,221,760		\$515,986

**Small Primary Service Rate Comparison
AmerenUE - Missouri
Weather Normalized-12 months ending March 2010
Growth to February 2011**

<u>Billing Components</u>	<u>Present</u>
<u>Summer (June - September)</u>	
Customer Charge Per Month	\$259.27
Customer Charge TOD Per Month	\$276.11
Energy Charge (¢ per kWh)	
First 150 kWh per KW	8.59 ¢
Next 200 kWh per KW	6.47 ¢
All over 350 kWh per KW	4.35 ¢
TOD On Peak Adjust. per Kwh	0.77 ¢
TOD Off Peak Adjust. per Kwh	-0.43 ¢
Demand	
Per KW of Billing Demand	\$3.44
Billing Kvars	30 ¢
Rider B 34kv	
Per KW	99 ¢
Rider B 138kv	
Per KW	117 ¢
<u>Winter (October - May)</u>	
Customer Charge Per Month	\$259.27
Customer Charge TOD Per Month	\$276.11
Energy Charge (¢ per kWh)	
First 150 kWh per KW	5.41 ¢
Next 200 kWh per KW	4.02 ¢
All over 350 kWh per KW	3.15 ¢
Seasonal Energy Charge	3.15 ¢
TOD On Peak Adjust. per Kwh	0.29 ¢
TOD Off Peak Adjust. per Kwh	-0.15 ¢
Demand	
Per KW of Billing Demand	\$1.25
Billing Kvars	30 ¢
Rider B 34kv	
Per KW	99 ¢
Rider B 138kv	
Per KW	117 ¢

<u>Proof of Revenue</u>			
	<u>Units</u>	<u>Rate</u>	<u>\$1,000</u>
<u>Summer</u>			
Customer Charge	2,538	\$259.27	\$658
Customer Charge TOD	38	\$276.11	\$10
Summer Energy Mwh			
0-150 hours	412,391	\$0.0859	\$35,424
151-350 hours	506,766	\$0.0647	\$32,788
Over 350 hours	351,444	\$0.0435	\$15,288
Seasonal	-26	\$0.0000	\$0
TOD On Peak	8,144	\$0.0077	\$63
TOD Off Peak	12,278	-\$0.0043	(\$53)
Demand	2,817,662	\$3.44	\$9,693
Billing Kvars	556,710	\$0.30	\$167
Rider B 34kv	287,279	\$0.99	(\$284)
Rider B 138kv	0	\$1.17	\$0
			\$93,754
<u>Winter</u>			
Customer Charge	5,078	\$259.27	\$1,317
Customer Charge TOD	73	\$276.11	\$20
Winter Energy Mwh			
0-150 hours	685,722	\$0.0541	\$37,098
151-350 hours	838,156	\$0.0402	\$33,694
Over 350 hours	608,910	\$0.0315	\$19,181
Seasonal	151,973	\$0.0315	\$4,787
TOD On Peak	14,828	\$0.0029	\$43
TOD Off Peak	23,357	-\$0.0015	(\$35)
Demand	5,062,979	\$1.25	\$6,329
Billing Kvars	979,125	\$0.30	\$294
Rider B 34kv	553,934	\$0.99	(\$548)
Rider B 138kv	0	\$1.17	\$0
			\$102,178
	3,555,336		\$195,932

Large Primary Service Rate Comparison
AmerenUE - Missouri
Weather Normalized-12 months ending March 2010
Growth to February 2011

<u>Billing Components</u>		<u>Present</u>
<u>Summer (June - September)</u>		
Customer Charge	Per Month	\$308.77
Customer Charge TOD	Per Month	\$325.61
Demand Charge	Per KW of Billing Demand	\$17.29
Energy Charge:		
All Kwh	Cents per Kwh	2.90 ¢
TOD On Peak Adjust. per Kwh		0.56 ¢
TOD Off Peak Adjust. per Kwh		-0.31 ¢
Reactive Charge	Cents per KVar	30 ¢
Rider B 34kv	Per KW	99 ¢
Rider B 138kv	Per KW	117 ¢
<u>Winter (October - May)</u>		
Customer Charge	Per Month	\$308.77
Customer Charge TOD	Per Month	\$325.61
Demand Charge	Per KW of Billing Demand	\$7.85
Energy Charge:		
All Kwh	Cents per Kwh	2.56 ¢
TOD On Peak Adjust. per Kwh		0.26 ¢
TOD Off Peak Adjust. per Kwh		-0.13 ¢
Reactive Charge	Cents per KVar	30 ¢
Rider B 34kv	Per KW	99 ¢
Rider B 138kv	Per KW	117 ¢

<u>Proof of Revenue</u>			
	<u>Units</u>	<u>Rate</u>	<u>1000's</u>
<u>Summer</u>			
Customer Charge	292	\$308.77	\$90
Customer Charge TOD	12	\$16.84	\$0
Summer Mwh	1,381,210	\$0.0290	\$40,055
TOD On Peak	27,258	\$0.0056	\$153
TOD Off Peak	52,744	-\$0.0031	-\$164
Demand	2,603,538	\$17.29	\$45,015
Billing Kvars	318,385	\$0.30	\$96
Rider B 34kv	706,026	\$0.99	(\$699)
Rider B 138kv	172,041	\$1.17	(\$201)
			<u>\$84,345</u>
<u>Winter</u>			
Customer Charge	584	\$308.77	\$180
Customer Charge TOD	24	\$16.84	\$0
Winter Mwh	2,423,706	\$0.0256	\$62,047
TOD On Peak	44,054	\$0.0026	\$115
TOD Off Peak	89,680	-\$0.0013	-\$117
Demand	4,574,755	\$7.85	\$35,912
Billing Kvars	498,488	\$0.30	\$150
Rider B 34kv	1,236,653	\$0.99	(\$1,224)
Rider B 138kv	332,278	\$1.17	(\$389)
			<u>\$96,674</u>
	3,804,916		\$181,019

**Large Transmission Service Rate
AmerenUE - Missouri
Weather Normalized-12 months ending March 2010
Growth to February 2011**

<u>Billing Components</u>		<u>Present</u>
<u>Summer (June - September)</u>		
Customer Charge	Per Month	\$1,758.77
Demand Charge	Per KW of Billing Demand	\$12.760
Energy Charge:		
All Kwh	Cents per Kwh	2.421 ¢
Line Loss Kwh	Cents per Kwh	3.27 ¢
Reactive Charge	Cents per kVar	30 ¢
 <u>Winter (October - May)</u>		
Customer Charge	Per Month	\$1,758.77
Demand Charge	Per KW of Billing Demand	\$4.870
Energy Charge:		
All Kwh	Cents per Kwh	2.132 ¢
Line Loss Kwh	Cents per Kwh	3.27 ¢
Reactive Charge	Cents per kVar	30 ¢

<u>Proof of Revenue</u>			
	<u>Units</u>	<u>Rate</u>	<u>1000's</u>
<u>Summer</u>			
Customer Charge	4	\$1,758.77	\$7
Summer Mwh	1,373,281	\$0.02421	\$33,247
Line Loss Mwh	48,065	\$0.03270	\$1,572
Demand	1,902,596	\$12.760	\$24,277
Billing Kvars	0	0.3	\$0
			<u>\$59,103</u>
<u>Winter</u>			
Customer Charge	8	\$1,758.77	\$14
Winter Mwh	2,745,737	\$0.02132	\$58,539
Line Loss Mwh	96,101	\$0.03270	\$3,143
Demand	3,814,346	\$4.87	\$18,576
Billing Kvars	0	\$0.30	\$0
			<u>\$80,272</u>
	4,119,018		\$139,375
			<u>\$139,375</u>

AmerenUE - Missouri
Weather Normalized-12 months ending March 2010
Growth to February 2011

	<u>Normal Bill Unit MWH</u>	<u>Billing Unit Revenue</u>
Residential	13,927,650	\$1,094,131,327
Small General Service	3,590,171	\$280,072,907
Large General Service	8,221,760	\$515,986,493
Small Primary Service	3,555,336	\$195,931,760
Large Primary Service	3,804,916	\$181,018,908
Large Transmission Service	4,119,018	\$134,660,338
Lighting	231,461	\$31,160,072
MSD		<u>\$63,940</u>
Total	37,450,312	\$2,433,025,745
Large Transmission Service Line Losses		<u>\$4,714,216</u>
		\$2,437,739,961