

Exhibit No.:
Issues: Voltage Level Adjustments
Witness: Alan J. Bax
Sponsoring Party: MO PSC Staff
Type of Exhibit: Rebuttal Testimony
Case No.: ER-2014-0370
Date Testimony Prepared: May 7, 2015

MISSOURI PUBLIC SERVICE COMMISSION

REGULATORY REVIEW DIVISION

REBUTTAL TESTIMONY

OF

ALAN J. BAX

KANSAS CITY POWER & LIGHT COMPANY

CASE NO. ER-2014-0370

Jefferson City, Missouri
May 2015

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CASE NO. ER-2014-0370

13 Q. Please state your name and business address.

14 A. My name is Alan J. Bax and my business address is Missouri Public Service
15 Commission, P.O. Box 360, Jefferson City, MO 65102.

16 Q. What is your position at the Commission?

17 A. I am a Utility Engineering Specialist III in the Engineering Analysis Unit of
18 the Regulatory Review Division.

19 Q. Are you the same Alan J. Bax that contributed to Staff's Revenue Requirement
20 Cost of Service Report ("COS Report") filed on April 3, 2015?

21 A. Yes, I am.

22 Q. What is the purpose of your rebuttal testimony?

23 A. My rebuttal testimony responds to a recommendation made in the direct
24 testimony on Class Cost of Service/Rate Design ("CCOS") of Missouri Industrial Energy
25 Consumers ("MIEC") and Midwest Energy Consumers' Group ("MECG") witness Maurice
26 Brubaker. On Page 3, lines 27-29, Mr. Brubaker proposes that "if the Commission approves a
27 Fuel Adjustment Charge ("FAC"), the voltage level distinctions (for purposes of recognizing
28 losses) should be secondary, primary, substation and transmission." In addition, on Page 35,
29 lines 17-20, Mr. Brubaker recommends that "Should the Commission determine to allow
KCPL to have an FAC, either in this case or in a future case, KCPL should be required to

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1 track and charge customers according to the four separate voltage levels at which delivery
2 takes place, and not the two levels it has proposed in this case.”

3 Q. What two voltage level adjustments were proposed by KCPL in its request for
4 a FAC?

5 A. KCPL proposed secondary and primary voltage level adjustments in its FAC
6 tariff proposal.

7 Q. What was Staff’s recommendation in its COS Report regarding voltage level
8 adjustments?

9 A. In the event that the Commission decides to allow KCPL to have a FAC, Staff
10 recommended secondary and primary voltage level adjustments, which is consistent with
11 other existing FACs approved by the Commission.

12 Q. Does Staff agree with Mr. Brubaker’s analysis regarding the additional voltage
13 level adjustments?

14 A. No, Staff cannot agree at this time. Staff typically utilizes data from a loss
15 study in its determination of voltage level factors that are reflected in the corresponding FAC
16 tariffs. As identified in Staff’s COS Report, Staff utilized Table B-02, included in Appendix
17 B of KCPL’s Loss Study, R075-14-Revision 1, in its calculation of the secondary and primary
18 voltage level factors for this case. However, as demonstrated in Schedule AJB-1 attached to
19 this rebuttal testimony, Table B-02 does not contain applicable data for losses experienced at
20 the substation level, which is one of the voltage level distinctions recommended by MIEC and
21 MIECG witness Mr. Brubaker.

22 Q. Did Mr. Brubaker’s analysis use KCPL’s Loss Study, R075-14-Revision 1?

23 A. No, it did not.

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1 Q. Do the Commission's FAC rules require an electric utility to conduct a loss
2 study for the purpose of calculating voltage level factors to be reflected in its FAC?

3 A. Yes. 4 CSR 240-20.090(9) provides that an electric utility must conduct a loss
4 study to be used in a general rate proceeding for this very purpose.

5 Q. Does Staff have additional concerns with Mr. Brubaker's recommendation?

6 A. Yes. KCPL's Loss Study, R075-14-Revision 1 included an analysis of data
7 collected in calendar year 2013. Mr. Brubaker's analysis considered data from the test year in
8 this case (twelve months ending March 2014) in recommending four proposed voltage level
9 factors.

10 Q. Does Staff support Mr. Brubaker's recommendation to include two additional
11 voltage level factors in this case?

12 A. No. As noted above, KCPL's Loss Study does not contain all of the data
13 which would be necessary to calculate the additional voltage level factors, and Mr. Brubaker's
14 analysis, which does not use KCPL's Loss Study, is based on data from a different time
15 period than the KCPL Loss Study. However, Staff recommends that the Commission order
16 KCPL to include the information necessary to allow the parties to consider and evaluate what
17 voltage level factors should be incorporated into the design of the FAC tariff (*i.e.*, applicable
18 data for losses experienced at the substation level) in its line loss study for its next general rate
19 case.

20 Q. Does this conclude your rebuttal testimony?

21 A. Yes.

Table B-02

KCPL- MISSOURI ENERGY LOSS MULTIPLIERS

SERVICE LEVEL	Total System		Secondary Service		Primary Service		Substation Service		Transmission Service	
	kWh	Multiplier	kWh	Cumulative Multiplier	kWh	Cumulative Multiplier	kWh	Cumulative Multiplier	kWh	Cumulative Multiplier
Secondary		1.024411								
Sales	4,130,000,658		4,130,000,658							
Losses + Diversion	100,816,510		100,816,510							
Input to Primary	4,230,817,168		4,230,817,168	1.024411						
Primary		1.025166	4,230,817,168							
Primary Sales	4,322,598,972		4,322,598,972							
Primary Losses	215,254,794		106,472,509							
put to Transmission	8,768,670,934		4,337,289,677	1.050191	4,431,381,257	1.025166				
			4,337,289,677		4,431,381,257					
Transmission		1.033429								
Transmission Sales	325,885,489		84,733,979		86,572,167				325,885,489	
Losses	177,672,697		4,422,023,656		4,517,953,424				6,366,551	
System Input	9,272,229,120		292,022,998	1.070708	195,354,452	1.045194			332,252,040	1.019536
Losses + Diversion	493,744,001								6,366,551	