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Class Cost-of-Service  
Witness: Michael S. Scheperle  
Sponsoring Party: MO PSC Staff  
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Case No.: ER-2012-0174  
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**MISSOURI PUBLIC SERVICE COMMISSION**

**REGULATORY REVIEW DIVISION**

**DIRECT TESTIMONY**

**OF**

**MICHAEL S. SCHEPERLE**

**KANSAS CITY POWER AND LIGHT COMPANY**

**CASE NO. ER-2012-0174**

*Jefferson City, Missouri  
August 2012*

*Staff* Exhibit No. 212  
Date 10/17/12 Reporter MM  
File No. ER-2012-0174

**BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI**

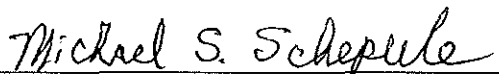
In the Matter of Kansas City Power & )  
Light Company's Request for Authority to )  
Implement A General Rate Increase for )  
Electric Service )

Case.No. ER-2012-0174

**AFFIDAVIT OF MICHAEL S. SCHEPERLE**

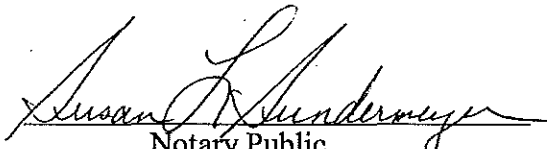
STATE OF MISSOURI     )  
  ) ss  
COUNTY OF COLE        )

Michael S. Scheperle, of lawful age, on his oath states: that he has participated in the preparation of the following Direct Testimony in question and answer form, consisting of 6 pages of Direct Testimony to be presented in the above case, that the answers in the following Direct Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true to the best of his knowledge and belief.

  
\_\_\_\_\_  
Michael S. Scheperle

Subscribed and sworn to before me this 16<sup>th</sup> day of August, 2012.

**SUSAN L. SUNDERMEYER**  
Notary Public - Notary Seal  
State of Missouri  
Commissioned for Callaway County  
My Commission Expires: October 03, 2014  
Commission Number: 10942086

  
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Notary Public

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**OF**

**MICHAEL S. SCHEPERLE**

**KANSAS CITY POWER AND LIGHT COMPANY**

**CASE NO. ER-2012-0174**

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**DIRECT TESTIMONY**  
**OF**  
**MICHAEL S. SCHEPERLE**  
**KANSAS CITY POWER AND LIGHT COMPANY**  
**CASE NO. ER-2012-0174**

Q. Please state your name and business address.

A. My name is Michael S. Scheperle and my business address is Missouri Public Service Commission, P. O. Box 360, Jefferson City, Missouri 65102.

Q. Who is your employer and what is your present position?

A. I am employed by the Missouri Public Service Commission ("Commission") and my title is Manager, Economic Analysis Section, Energy Unit, Regulatory Review Division.

Q. What is your educational background and work experience?

A. I completed a Bachelor of Science degree in Mathematics at Lincoln University in Jefferson City, Missouri. I have been employed by the Missouri Public Service Commission since June 2000. Prior to joining the Commission, I was employed at United Water Company as a Commercial Manager from 1983 to 2000, and at Missouri Power & Light Company from 1973 to 1983 as a Supervisor of Rates, Regulations and Budgeting. A list of the cases in which I have filed testimony before the Commission is shown on Schedule MSS-D1. I moved to the Economic Analysis section as a Regulatory Economist III in 2008. I assumed my current position in 2009. My previous testimony and responsibilities address topics including class cost of service, rate design, telecommunication issues, Missouri Universal Service Fund, energy efficiency/demand-side management, a Staff member of the

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1 Missouri-Deaf-Relay Committee, and a member of the Commission Staff's Electric Meter  
2 Variance Committee.

3 **EXECUTIVE SUMMARY**

4 Q. What is the purpose of your direct testimony?

5 A. The purpose of this testimony is to sponsor the Staff's recommendation in its  
6 Rate Design and Class Cost-of-Service Report ("CCOS Report") that is being filed  
7 concurrently with this direct testimony. I also provide in this direct testimony an overview of  
8 Staff's recommendations detailed in its CCOS Report. The CCOS Report presents Staff's  
9 updated CCOS study for Kansas City Power and Light Company ("KCPL") and provides  
10 methods to collect a Commission-ordered increase in KCPL's overall revenue requirement.

11 Q. What are Staff's rate design recommendations to the Commission for KCPL in  
12 this case?

13 A. As explained in its CCOS Report, Staff recommends that the Commission  
14 order KCPL to implement the following:

- 15 1. Staff recommends adjustments to class revenue responsibilities be made first on a  
16 company-wide revenue neutral basis to all classes of customers except the lighting  
17 class. The KCPL residential class should receive a positive 1% adjustment, the  
18 lighting class should receive the system average increase, and the remaining classes of  
19 customers (Small General Service group, Medium General Service group, Large  
20 General Service group, and the Large Power Service group) should all receive a  
21 negative adjustment of approximately 0.6%.
- 22 2. After having made the recommended revenue-neutral adjustments above, any overall  
23 change in revenues ordered by the Commission should be applied on an equal  
24 percentage basis to all classes. Staff further recommends that an additional constraint  
25 (revenue requirement after true-up) be placed on which class revenues are moved  
26 towards class cost-of-service to ensure no class receives an overall reduction in its rate  
27 revenues while another customer class receives an overall increase in its rate revenues  
28 while another class receives an overall increase in its rate revenues.  
29

1 Intra-class rate elements

- 2
- 3 3. Staff recommends the first energy block rate of the winter All-Electric General  
4 Service rates (Small, Medium, and Large) be increased by an additional 5%. The  
5 Commission has restricted the availability of the All-Electric and Separately-Metered  
6 space heating rates to customers currently served on one of those rate schedules, but  
7 only for so long as the customer continuously remains on that rate schedule. These  
8 rates are being adjusted to bring the winter season rates closer to its class cost of  
9 service for the winter season.
- 10
- 11 4. Staff recommends the first winter block of RESB (residential general use and space  
12 heat – one meter) and the winter season separately metered space heat rate of RESC  
13 (residential general use and space heat – two meters be increased by an additional 5%.  
14 These rates are being adjusted to bring residential rate classes RESB and RESC closer  
15 to its class cost of service for the winter season.

16 **STAFF RATE DESIGN AND CCOS REPORT**

17 Q. How is the Staff's CCOS Report organized?

18 A. The Report is organized by topic as follows:

19 I. Executive Summary

20 II. Class Cost-of-Service and Rate Design Overview

21 III. Class Cost-of-Service Study

22 IV. Rate Design

23 Q. Which members of Staff are responsible for the Staff's CCOS Report?

24 A. I am responsible for the Class Cost-of-Service and Rate Design Overview and

25 Staff Class Cost-of-Service sections.

26 Q. What relationship, if any, is there between the Staff's Revenue Requirement  
27 Cost of Service (COS) Report filed August 2, 2012, and the Staff's CCOS Report?

28 A. In its COS Report, Staff filed its accounting information, which included  
29 Staff's estimate of KCPL's revenue requirement through the update period of  
30 March 31, 2012. Later, the Staff is updating its information to the true-up period of August

1 31, 2012. Consistent with that COS Report, this CCOS Report reflects the Staff's revenue  
2 requirement recommendation of \$33,716,702 (high-point) based on Staff's estimate through  
3 the update period of March 31, 2012.

4 **CLASS COST OF SERVICE STUDY**

5 Q. How did Staff reach its CCOS recommendations to the Commission?

6 A. Staff's Accounting Schedules filed with Staff's COS Report show that an  
7 increase in KCPL's revenue requirement in the range of \$16,481,301 to \$33,716,702 is  
8 warranted. The COS Report shows that the high point of Staff's calculated return on equity  
9 range is \$33,716,701, an overall increase of 4.86%.

10 Staff used KCPL's rate schedules for the customer classes in its CCOS study. Staff  
11 also combined KCPL's lighting rate schedules to create its Lighting class. This consolidation  
12 resulted in Staff's twenty-one customer classes. The twenty-one customer classes are (1)  
13 residential regular, (2) residential all electric, (3) residential separately metered, (4) residential  
14 time of day, (5) small general service secondary & primary, (6) small general service all  
15 electric, (7) small general service unmetered, (8) small general service separately metered, (9)  
16 medium general service primary, (10) medium general service secondary, (11) medium  
17 general service all electric, (12) medium general service separately metered, (13) large  
18 general service primary, (14) large general service secondary, (15) large general service all  
19 electric, (16) large general service separately metered, (17) large power service secondary,  
20 (18) large power service primary, (19) large power service substation, (20) large power  
21 service transmission, and (21) lighting service. For each of these twenty-one customer  
22 classes, Staff determined (a) KCPL's investment to serve the customers in that customer class  
23 and (b) KCPL's ongoing expenses to serve the customers in that customer class.

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1 Q. How did Staff conduct its CCOS study?

2 A. The CCOS Report outlines how Staff performed its CCOS study. The cost-of-  
3 service procedure involves three steps: (1) Functionalization – this procedure identifies the  
4 different functional “levels” of the system; (2) Classification – this procedure determines for  
5 each functional type, the primary cause or causes of that cost being incurred, and segregates  
6 these cost of service components into a customer, demand or energy component; and  
7 (3) Allocation – this procedure allocates the class proportional responsibilities for each type of  
8 cost and spreads the cost among the various classes. The cost of service procedures of  
9 Functionalization, Classification, and Allocation are more fully explained in Schedule MSS-6  
10 to Staffs CCOS Report.

11 In its CCOS study, Staff used the Base, Intermediate and Peaking (“BIP”) method for  
12 allocating production investment and costs to the customer classes. These costs consist of two  
13 categories: (a) fixed costs, which include operating and maintenance expenses for labor and  
14 materials; and (b) variable costs, which includes fuel, fuel handling, and interchange power  
15 costs. The fixed portion of production expenses was allocated on the same basis as  
16 production plant, while the variable portion was allocated using a variable allocator based on  
17 the kilowatt-hours required at the generation level to provide service to each respective class.  
18 This type of allocation employs the familiar and widely used “expenses follow plant”  
19 principle of cost allocation. Staff used the twelve coincident peak method (“12 CP”) to  
20 allocate transmission investment and costs to the customer classes. Staff used a combination  
21 of non-coincident peak demands (“NCP”), individual customer maximum demands, and  
22 company specific studies to allocate distribution investment and costs to customer classes.  
23 Customer costs are allocated to customer classes based on the number of customers, company



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1 studies, and other internal allocators. Staff's CCOS study summary attached to its CCOS  
2 Report (Schedule MSS-1) is based on the revenue requirement associated with the high end of  
3 Staff's return on equity ("ROE") recommendation for KCPL's jurisdictional retail operations  
4 of \$33,716,702, and an overall increase of 4.86%.

5 Q. Does this conclude your direct testimony?

6 A. Yes, it does.

**Michael S. Scheperle**

**Testimony/Reports Filed Before  
The Missouri Public Service Commission:**

**CASE NOS:**

TO-98-329, *In the Matter of an Investigation into Various Issues Related to the Missouri Universal Service Fund*

TT-2000-527/513, *Application of Allegiance Telecom of Missouri, Inc. ... for an Order Requiring Southwestern Bell Telephone Company to File a Collocation Tariff; Joint Petition of Birch Telecom of Missouri, Inc. for a Generic Proceeding to Establish a Southwestern Bell Telephone Company Collocation Tariff before the Missouri Public Service Commission*

TT-2001-139, *In the Matter of Mark Twain Rural Telephone Company's Proposed Tariff to Introduce its Wireless Termination Service*

TT-2001-298, *In the Matter of Southwestern Bell Telephone Company's Proposed Tariff PSC Mo. No. 42 Local Access Service Tariff, Regarding Physical and Virtual Collocation*

TT-2001-440, *In the Matter of the determination of Prices, Terms, and Conditions of Line-Splitting and Line-Sharing*

TO-2001-455, *In the Matter of the Application of AT&T Communications of the Southwest, Inc., TCG St. Louis, Inc., and TCG Kansas City, Inc., for Compulsory Arbitration of Unresolved Issues with Southwestern Bell Telephone Company Pursuant to Section 252(b) of the Telecommunications Act of 1996*

TC-2002-57, *In the Matter Of Northeast Missouri Rural Telephone Company's And Modern Telecommunications Company's Complaint Against Southwestern Bell Telephone Company Regarding Uncompensated Traffic Delivered by Southwestern Bell Telephone Company To Northeast Missouri Rural Telephone And Modern Telecommunications Company.*

TC-2002-190, *In the Matter Of Mid-Missouri Telephone Company vs. Southwestern Bell Telephone Company*

TC-2002-1077, *BPS Telephone Company, et al., vs. Voicestream Wireless Corporation, Western Wireless Corp., and Southwestern Bell Telephone Company*

TO-2005-0144, *In the Matter of a Request for the Modification of the Kansas City Metropolitan Calling Area Plan to Make the Greenwood Exchange Part of the Mandatory MCA Tier 2*

TO-2006-0360, *In the Matter of the Application of NuVox Communications of Missouri, Inc. for an Investigation into the Wire Centers that AT&T Missouri Asserts are Non-Impaired Under the TRRO*

IO-2007-0439, *In the Matter of Spectra Communications Group, LLC d/b/a CenturyTel's Request for Competitive Classification Pursuant to section 392.245.5 RSMo*

IO-2007-0440, *In the Matter of CenturyTel of Missouri, LLC's Request for Competitive Classification Pursuant to Section 392.245.5 RSMo*

TO-2009-0042, *In the Matter of the Review of the Deaf Relay Service and Equipment Distribution Fund Surcharge*

ER-2009-0090, *In the Matter of the Application of KCP&L Greater Missouri Operations Company for Approval to Make Certain Changes in its Charges for Electric Service*

ER-2009-0089, *In the Matter of the Application of Kansas City Power and Light Company for Approval to Make Certain Changes in its Charges for Electric Service To Continue the Implementation of Its Regulatory Plan*

ER-2010-0036, *In the Matter of Union Electric Company, d/b/a AmerenUE's Tariffs to Increase its Annual Revenues for Electric Service*

ER-2010-0130, *In the Matter of The Empire District Electric Company of Joplin, Missouri for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Missouri Service Area of the Company*

ER-2010-0355, *In the Matter of the Application of Kansas City Power & Light Company for Approval to Make Certain Changes in its Charges for Electric service to Continue the Implementation of Its Regulatory Plan*

ER-2010-0356, *In the Matter of the Application of KCP&L Greater Missouri Operations Company for Approval to Make Certain Changes in its Charges for Electric Service*

ER-2011-0028, *In the Matter of Union Electric Company, d/b/a Ameren Missouri's Tariff to Increase Its Annual Revenues for Electric Service*

ER-2011-0004, *In the Matter of The Empire District Electric Company of Joplin, Missouri for Authority to File Tariffs Increasing Rates for Electric Service Provided to Customers in the Missouri Service Area of the Company*

EC-2011-0383, *Briarcliff Development Company, a Missouri Corporation, Complainant, v. Kansas City Power and Light Company, Respondent*

EO-2012-0141, *In the Matter of the Application of The Cathedral Square Corporation, a Missouri Non-Profit Corporation, for a Variance from Kansas City Power & Light Company's General Rules and Regulations Requiring Individual Metering*

EO-2012-0009, *In the Matter of KCP&L Greater Missouri Operations Company's Application for Approval of Demand-Side Programs and for Authority to Establish a Demand-side Programs Investment Mechanism*

EO-2012-0142, *In the Matter of Union Electric Company d/b/a Ameren Missouri's Filing to Implement Regulatory changes in Furtherance of Energy Efficiency as Allowed by MEEIA*

ER-2012-0166, *In the Matter of Union Electric Company, d/b/a Ameren Missouri's Tariff to Increase Its Annual Revenues for Electric Service*