

Exhibit No.:
Issues: Rate Design
Class Cost-of-Service
Witness: Michael S. Scheperle
Sponsoring Party: MO PSC Staff
Type of Exhibit: Direct Testimony
Case No.: ER-2012-0345
Date Testimony Prepared: December 13, 2012

MISSOURI PUBLIC SERVICE COMMISSION

REGULATORY REVIEW DIVISION

DIRECT TESTIMONY

OF

MICHAEL S. SCHEPERLE

EMPIRE DISTRICT ELECTRIC COMPANY

CASE NO. ER-2012-0345

*Jefferson City, Missouri
December 2012*

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

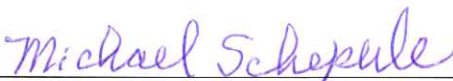
In the Matter of The Empire District)
Electric Company of Joplin, Missouri)
Tariffs Increasing Rates for Electric)
Service Provided to Customers in the)
Missouri Service Area of the Company)

Case No. ER-2012-0345

AFFIDAVIT OF MICHAEL S. SCHEPERLE

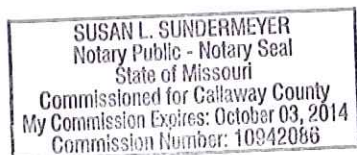
STATE OF MISSOURI)
) ss
COUNTY OF COLE)

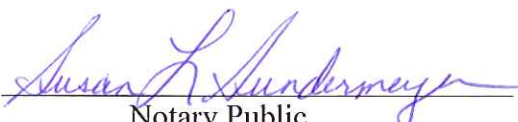
Michael S. Scheperle, of lawful age, on his oath states: that he has participated in the preparation of the following Direct Testimony in question and answer form, consisting of 6 pages of Direct Testimony to be presented in the above case, that the answers in the following Direct Testimony were given 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 13th day of December, 2012.





Notary Public

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OF
MICHAEL S. SCHEPERLE
EMPIRE DISTRICT ELECTRIC COMPANY
CASE NO. ER-2012-0345

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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 Empire District Electric Company ("Empire") and provides methods
10 to collect a Commission-ordered increase in Empire's overall revenue requirement.

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

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

- 15 1. Based on CCOS results, Staff recommends adjustments be made first on a company-
16 wide revenue-neutral basis to the residential class, commercial building class and
17 general power class. The Empire residential class should receive a positive 0.5%
18 adjustment. The Empire commercial building class and general power class should
19 receive a negative adjustment of approximately 0.82%. All other classes should
20 receive the system average increase (commercial space heating, special transmission:
21 Praxair, total electric building, feed mill and grain elevator, large power, lighting and
22 miscellaneous).
- 23 2. After having made the recommended revenue-neutral adjustments above, any overall
24 change in revenues ordered by the Commission should be applied on an equal-
25 percentage basis to all classes. Staff further recommends that an additional constraint
26 (revenue requirement after true-up) be placed on which class revenues are moved
27 towards class cost-of-service to ensure no class receives an overall reduction in its rate
28 revenues while another customer classes receives an overall increase in its rate
29 revenues.
- 30 3. That the residential customer charge be increased to \$13.25.

- 1 4. Staff recommends that there be a separate DSM cost recovery rate on each rate
2 schedule along with another rate to reflect either: 1) rate including the DSM cost
3 recovery rate (applied to those who have not opted out of DSM), or 2) rate excluding
4 the DSM cost recovery rate (applied to those who opted out of DSM).

5 **STAFF RATE DESIGN AND CCOS REPORT**

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

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

8 I. Executive Summary

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

10 III. Staff's Class Cost-of-Service Study

11 IV. Rate Design

12 V. Loss Study

13 VI. Fuel Adjustment Clause Tariff Sheets

14 VII. Fuel Adjustment Clause Heat Rate and Efficiency Testing

15 Q. Which members of Staff are responsible for the Staff's Rate Design and CCOS
16 Report?

17 A. I am responsible for the Executive Summary, Class Cost-of-Service and Rate
18 Design Overview, and Rate Design. Robin Kliethermes and myself are responsible for the
19 Class Cost-of-Service Study. David Roos is responsible for Staff's review of Empire's loss
20 study. Matthew Barnes is responsible for Staff's recommended FAC tariff revisions. Dan
21 Beck is responsible for Empire's heat rate testing.

22 Q. What relationship, if any, is there between the Staff's Revenue Requirement
23 Cost of Service Report ("COS Report") filed November 30, 2012, and the Staff's CCOS
24 Report?

1 A. In its COS Report, Staff filed its accounting information, which included
2 Staff's estimate of Empire's revenue requirement through the update period of June 30, 2012.
3 Later, the Staff is updating its information to the true-up period of December 31, 2012.
4 Consistent with that COS Report, this CCOS Report reflects the Staff's revenue requirement
5 recommendation of \$13,817,579 (high-end) based on Staff's accounting information through
6 the update period of June 30, 2012.

7 **CLASS COST OF SERVICE STUDY**

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

9 A. Staff's Accounting Schedules filed with Staff's COS Report show that an
10 increase in Empire's revenue requirement in the range of \$5,266,465 to \$13,817,579 is
11 warranted. The COS Report shows that the high-point of Staff's calculated return on equity
12 range is \$13,817,579, an overall increase of 3.34%.

13 Staff used Empire's rate schedules for the customer classes in its CCOS study. Staff
14 also combined Empire's lighting rate schedules to create its Lighting class. This
15 consolidation resulted in Staff's nine (9) customer classes. The nine customer classes are (1)
16 residential, (2) commercial building, (3) commercial space heat, (4) general power, (5) special
17 transmission – Praxair, Inc., (6) total electric building, (7) feed mill/grain elevator, (8) special
18 transmission (no customers), and (9) lighting and miscellaneous service. For each of these
19 nine customer classes, Staff determined Empire's investment to serve the customers in that
20 customer class and Empire's ongoing expenses to serve the customers in that customer class.

21 Q. How did Staff conduct its CCOS study?

22 A. The CCOS Report outlines how Staff performed its CCOS study. The cost-of-
23 service procedure involves three steps: (1) Functionalization – this procedure identifies the

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

8 In its CCOS study, Staff used the modified Base, Intermediate and Peaking (“BIP”)
9 method for allocating production investment and costs to the customer classes. These costs
10 consist of two categories: (a) fixed costs, which include operating and maintenance expenses
11 for labor and materials; and (b) variable costs, which includes fuel, fuel handling, and
12 interchange power costs. The fixed portion of production expenses was allocated on the same
13 basis as production plant, while the variable portion was allocated using a variable allocator
14 based on the kilowatt-hours required at the generation level to provide service to each
15 respective class. This type of allocation employs the familiar and widely used “expenses
16 follow plant” principle of cost allocation. Staff used the twelve non-coincident peak method
17 (“12 NCP”) to allocate transmission investment and costs to the customer classes. Staff used
18 a combination of non-coincident peak demands (“NCP”), individual customer maximum
19 demands, and company specific studies to allocate distribution investment and costs to
20 customer classes. Customer costs are allocated to customer classes based on the number of
21 customers, company studies, and other internal allocators. Staff’s CCOS study summary
22 attached to its CCOS Report (Schedule MSS-1) is based on the revenue requirement

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1 associated with the high-point range of Staff's return on equity ("ROE") recommendation for
2 Empire's jurisdictional retail operations of \$13,817,579, and an overall increase of 3.34%.

3 Q. Does this conclude your direct testimony?

4 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*

ER-2012-0174, *In the Matter of Kansas City Power & Light Company's Request for Authority to Implement A General Rate Increase for Electric Service*

ER-2012-0175, *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*