

Exhibit No.:  
Issues: Class Cost-of-Service  
Rate Design  
Witness: Michael S. Scheperle  
Sponsoring Party: MO PSC Staff  
Type of Exhibit: Direct Testimony  
Case No.: ER-2011-0004  
Date Testimony Prepared: March 16, 2011

**MISSOURI PUBLIC SERVICE COMMISSION**

**UTILITY OPERATIONS DIVISION**

**DIRECT TESTIMONY**

**OF**

**MICHAEL S. SCHEPERLE**

**THE EMPIRE DISTRICT ELECTRIC COMPANY**

**FILE NO. ER-2011-0004**

*Jefferson City, Missouri*

*March 2011*



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1 **EXECUTIVE SUMMARY**

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

3 A. The purpose of this testimony is to sponsor the Staff's recommendation in its  
4 Rate Design and Class Cost-of-Service Report (CCOS Report) that is being filed concurrently  
5 with this direct testimony. I also provide in this direct testimony an overview of Staff's  
6 recommendations detailed in its CCOS Report. The CCOS Report presents Staff's updated  
7 CCOS study for The Empire District Electric Company (Empire) and provides methods to  
8 collect a Commission ordered overall increase in Empire's overall revenue requirement. Also,  
9 the CCOS Report makes a recommendation to require Empire to make clarifying and wording  
10 changes to its tariffs; remove obsolete energy efficiency program tariff sheets; recommends  
11 changes to the Fuel Adjustment Clause (FAC) tariff sheets; and street and area lighting  
12 recommendations.

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

15 A. As explained in its CCOS Report, Staff recommends that the Commission  
16 order Empire to implement revenue neutral rate element adjustments as detailed in the CCOS  
17 Report to reduce the summer/non-summer variation in rate elements and to implement the  
18 following rate design after revenue neutral adjustments are implemented:

19 1. The following Empire customer classes receive the system average increase, as  
20 the revenue responsibilities of these customer classes are close to Empire's  
21 cost to serve them:

- 22 • Commercial Building
- 23 • Commercial Small Heating
- 24 • Total Electric Building

1           2. The following Empire customer classes receive the system average percent  
2           increase plus an approximate additional 0.4% increase, because the current  
3           revenue responsibilities of the customer classes are less than Empire's cost to  
4           serve them.

- 5           • Residential Service
- 6           • Special Transmission Service Contract: Praxair
- 7           • Large Power Service

8           3. The following Empire customer classes receive no increase for the first \$4  
9           million, because their current revenue responsibilities exceed Empire's cost of  
10          serving them. For any Commission ordered increase above \$4 million, that the  
11          additional amount above \$4 million be allocated on an equal percentage basis  
12          to the following Empire customer classes:

- 13          • General Power Service
- 14          • Feed Mill and Grain Elevator Service

15          4. The Empire Lighting class (Street, Private, Special, and Miscellaneous) receive  
16          no increase as their current revenue responsibilities exceed Empire's cost of  
17          serving them by over 20%.

18          5. Allocate any Commission decrease as an equal percentage decrease to the rate  
19          schedules for the customer classes in Table 1 of the Rate Design and CCOS  
20          Report to have a negative percent (revenues exceed cost to serve).

21          6. Increase the residential customer charge to \$13.00.

22    In addition, Staff's CCOS Report includes recommendations that the Commission:

- 23          1. Address miscellaneous tariff issues;
- 24          2. Approve FAC tariff sheets that correspond to the exemplar tariff sheets  
25          attached to Staff's CCOS Report; and
- 26          3. Require Empire to no later than 12 months following the approval of tariff  
27          sheets in this case complete its evaluation of Light Emitting Diode (LED), and  
28          Street and Area Lighting (SAL) systems and either file proposed LED lighting  
29          rate schedules or file to state when it will file proposed LED lighting tariff  
30          sheets.

1 **STAFF RATE DESIGN AND CCOS REPORT**

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

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

4 I. Executive Summary

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

6 III. Class Cost-of-Service Study

7 IV. Rate Design

8 V. Miscellaneous Tariff Revisions

9 VI. Fuel Adjustment Clause

10 VII. Street and Area Lighting Recommendation

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

12 A. I am responsible for the Class Cost-of-Service and Rate Design Overview and  
13 Staff Class Cost-of-Service sections. Curt Wells and I are responsible for rate design  
14 recommendations. William (Mack) L. McDuffey is responsible for Miscellaneous Tariff  
15 Revisions. Matt J. Barnes is responsible for the FAC Recommendations. Hojong Kang is  
16 responsible for the SAL recommendation.

17 Q. What relationship is there between the Staff's Revenue Requirement Cost-of-  
18 Service (COS) Report filed February 23, 2011, and the Staff's CCOS Report?

19 A. In its COS Report Staff filed its accounting information, which included  
20 Staff's estimate of Empire's revenue requirement through the test year update period of  
21 November 30, 2010. Consistent with that COS Report, this CCOS Report reflects the Staff's  
22 revenue requirement recommendation of \$579,943 (mid-point range) based on Staff's  
23 estimate through the updated cut-off date of November 30, 2010.

1     **CLASS COST-OF-SERVICE STUDY**

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

3           A.     Staff's Accounting Schedules filed with Staff's COS Report show a change in  
4     Empire's revenue requirement in the range of \$-3,242,474 to \$4,386,887 is warranted. In its  
5     COS Report, Staff's mid-point of its return on equity range calculated Empire's revenue  
6     requirement to be \$579,943, an overall increase of 0.14%.

7           Staff used Empire's rate schedules for the customer classes in its CCOS study. For its  
8     lighting class Staff combined Empire's lighting rate schedules. This resulted in nine customer  
9     classes and the Special Transmission Service schedule (ST) which serves no customers at this  
10    time. For each of the nine customer classes Staff determined (1) Empire's investment to serve  
11    the customers in that customer class; and (2) Empire's ongoing expenses to serve the  
12    customers in that customer class. Staff's CCOS study revealed that, on a revenue neutral  
13    basis, Empire's current rates result in six of the customer classes having more revenue  
14    responsibility than Empire's cost (investment and expenses) to serve them and three of the  
15    rate customer classes having less revenue responsibility than Empire's costs to serve them.  
16    For Staff's CCOS study results, a positive percentage indicates revenue responsibility of that  
17    customer class is less than Empire's cost to serve that class, i.e., the class has underpaid. In  
18    contrast, a negative percentage indicates revenue responsibility of the customer class exceeds  
19    Empire's cost to serve to that class, i.e., the class has overpaid.

20          Q.     How did Staff conduct its CCOS study?

21          A.     The CCOS Report outlines how Staff performed its CCOS study. In its CCOS  
22    study Staff used the Base, Intermediate, and Peaking (BIP) method for allocating production  
23    investment and costs to the customer classes. Staff used the 12 coincident (12 CP) method to



1 allocate transmission investment and costs to the customer classes. Staff used a combination  
2 of non-coincident peak (NCP) demands and Empire specific studies to allocate distribution  
3 investment and costs to customer classes. Customer costs are allocated to customer classes  
4 based on the number of customers, Empire studies, and other internal allocators. Staff's  
5 CCOS study summary attached to its CCOS Report (Schedule MSS-1) is based on Staff's  
6 midpoint return on equity (ROE) recommendation revenue requirement for Empire's  
7 jurisdictional retail operations of \$579,943 and an overall increase of 0.14%.

8 **RATE DESIGN AND OTHER RECOMMENDATIONS**

9 Q. What are Staff's Rate Design and other recommendations detailed in its CCOS  
10 Report?

11 A. Staff recommends that the Commission order Empire to implement revenue  
12 neutral rate element adjustments as detailed in the CCOS Report to reduce the summer/non-  
13 summer variation in rate elements and to implement the following rate design after revenue  
14 neutral adjustments are implemented for any Commission ordered increase as follows:

- 15 1. The following Empire customer classes receive the system average increase, as  
16 the revenue responsibilities of these customer classes are close to Empire's  
17 cost to serve them:
- 18 • Commercial Building
  - 19 • Commercial Small Heating
  - 20 • Total Electric Building
- 21 2. The following Empire customer classes receive the system average percent  
22 increase plus an approximate additional 0.4% increase, because the current  
23 revenue responsibilities of the customer classes are less than Empire's cost to  
24 serve them.
- 25 • Residential Service
  - 26 • Special Transmission Service Contract: Praxair

- Large Power Service

3. The following Empire customer classes receive no increase for the first \$4 million, because their current revenue responsibilities exceed Empire's cost of serving them. For any Commission ordered increase above \$4 million, that the additional amount above \$4 million be allocated on an equal percentage basis to the following Empire customer classes:

- General Power Service
- Feed Mill and Grain Elevator Service

4. The Empire Lighting class (Street, Private, Special, and Miscellaneous) receive no increase as their current revenue responsibilities exceed Empire's cost of serving them by over 20%.

5. Allocate any Commission ordered decrease as an equal percentage decrease to the rate schedules for the customer classes shown in Table 1 of the CCOS Report to have a negative percent (revenues exceed cost to serve).

6. The Residential customer charge be increased to \$13.00.

Q. Does Staff have any other recommendations for changes to Empire's tariff sheets in its CCOS Report?

A. Yes, Staff recommends:

1. Clarifying and wording changes in specific tariff sheets;
2. Revisions to the FAC tariff sheets; and
3. Empire file proposed LED lighting tariff sheets after it completes its evaluation of LED SAL systems.

Q. Does this conclude your direct testimony?

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*