Exhibit No.:	
Issues:	Class Cost-of-Service Rate Design
Witness:	Michael S. Scheperle
Sponsoring Party:	MO PSC Staff
Type of Exhibit:	Surrebuttal Testimony
File No.:	ER-2010-0355
Date Testimony Prepared:	January 5, 2011

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY OPERATIONS DIVISION

SURREBUTTAL TESTIMONY

OF

MICHAEL S. SCHEPERLE

KANSAS CITY POWER & LIGHT COMPANY

FILE NO. ER-2010-0355

Jefferson City, Missouri
January 2011

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

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	)))))	File No.: ER-2010-0355

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 Surrebuttal Testimony in question and answer form, consisting of 12 pages of Surrebuttal Testimony to be presented in the above case, that the answers in the following Surrebuttal 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
Michael S. Scheperle

Subscribed and sworn to before me this 5th day of January, 2011.

Nikki Senn
Notary Public

NIKKI SENN
Notary Public - Notary Seal
State of Missouri
Commissioned for Osage County
My Commission Expires: October 01, 2011
Commission Number: 07287016

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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. Are you the same Michael S. Scheperle who filed in this proceeding on November 24, 2010, direct testimony, both in question and answer format and as part of the Missouri Public Service Commission Staff's (Staff) Rate Design and Class Cost-of-Service Report, and who filed on December 10, 2010, rebuttal testimony in question and answer format?

A. Yes, I am.

Q. What is the purpose of your surrebuttal testimony?

A. I respond to the Class Cost-of-Service (CCOS) rebuttal testimonies of (1) U.S. Department of Energy (DOE) witness Dennis W. Goins concerning his criticism of the Base, Intermediate, and Peak (BIP) production allocator and his proposal of a 4 coincident peak (CP) method production allocator; (2) Kansas City Power & Light (KCPL) witness Paul Normand regarding the production-capacity allocator; (3) KCPL witness Tim M. Rush on the precision of the energy component in tariff rates; (4) KCPL witness Tim M. Rush regarding his rate design recommendations; and (5) compare rate design recommendations by other parties.

Production-Capacity Allocator

Q. Does the DOE criticize Staff and KCPL for using the BIP method for allocating production-capacity costs in their CCOS studies?

A. Yes. Mr. Goins alleges that the BIP method inappropriately allocates all baseload plant costs and the vast majority of KCPL's total fixed production-capacity costs on the basis of customer energy use with almost no regard for the demands that customers impose on KCPL's system (Goins, Rebuttal Testimony page 3).

Q. Is his criticism valid?

A. No. Staff's BIP method reasonably allocates fixed production-capacity costs. The first step of the BIP method is to evaluate the system loads of the test period. This information is detailed in Staff's Rate Design and Class Cost-of-Service Report filed in this case on November 24, 2010, in Table 3 (page 14). This evaluation shows that KCPL is a summer peaking utility with the four highest monthly coincident system peaks occurring in the summer season—June to September.

Q. Would you please explain further?

A. In the BIP method, the base allocator (B portion of BIP method) is calculated on each class's average hourly annual kWh usage at generation in the test year. This is the average hourly demand for each class at generation. This level of demand forms the basis to allocate the capacity requirements to each customer class for production investment and costs. The base portion is approximately 53% of the total of the classes' annual non-coincident peak (NCP)[1] demands (1,053,317 kW / 1,976,201 kW NCP). The intermediate portion (I portion of BIP method) involves using the average of the 12 NCP for the intermediate piece. The

[1] The NCP demand is defined as the maximum monthly peak demand of each customer class at any time during the study period, and it may or may not fall on the same hour as the system peak for that month.

intermediate portion is determined by the intermediate peak less the base portion already allocated to the various classes. The intermediate portion is approximately 84% of the total NCP demand less the 53% already allocated in the base portion (1,654,403 kW / 1,976,201 kW minus 0.53).

The final step is to determine the peak portion (P portion of BIP method) for allocation to the various classes. The peak portion is allocated to the various classes based on each class's share of the summer peak less the base and intermediate portion already allocated to the various classes. Staff used the four summer months during the test year for calculating the peak portion since the four highest summer peaks are greater than the winter peaks. The peak portion is approximately 16%, the 100% less the base and intermediate portion of 84% already allocated.

In summary, approximately 53% is allocated in the base component, 31% is allocated in the intermediate component, and 16% is allocated in the peak component.

Q. Does Staff have concerns with the 4 CP method the DOE proposes be used for allocating production-capacity costs for purposes of performing a CCOS study for KCPL?

A. Yes it does. The 4 CP method results in free ridership for the lighting class. Free ridership is when service rendered completely off-peak is not assigned any responsibility for capacity costs. Street lights are not on during the day and therefore would not be allocated any capacity costs at all if the coincident peaks occur during daylight hours and the Commission chooses the 4 CP allocator as DOE proposes. Because Staff uses energy in the base component there is no free ridership and the allocation factor is more stable and equitable method than only using a 4 CP method.

Also, there are three components in the BIP method. The intermediate component and the peak component are both allocated on class demands. In contrast, the 4 CP allocation method employed by DOE only uses four data points out of 8,760 hours in a test year for allocating costs to the customer classes. This may produce large cost allocation variations to certain classes. Table 1 below shows the large variations that occur in only using a 4 CP allocation method. Note the large variation in the Lighting class indices of return compared to those of other production allocation methods.

Table 1

Summary Results of Class Cost of Service Results
INDEX OF RETURN

Customer Class	KCPL	Staff	U.S. Department Of Energy	Industrials A&E -4NCP	Industrials A&E -2NCP	Industrials 4CP
RESIDENTIAL (RES)	0.98	0.77	0.66	0.70	0.67	0.66
SMALL GENERAL SERVICE (SGS)	1.97	2.10	2.10	1.77	1.87	2.10
MEDIUM GENERAL SERVICE (MGS)	1.13	1.17	1.21	1.14	1.17	1.21
LARGE GENERAL SERVICE (LGS)	1.02	1.19	1.30	1.34	1.38	1.30
LARGE POWER SERVICE (LPS)	0.67	0.81	0.97	1.00	1.01	0.97
LIGHTING	1.28	1.34	6.12	0.99	1.11	6.12

An Index of Return above 1.0 indicates the customer class is exceeding its revenue responsibility–cost to provide service to that class; therefore, to equalize revenue responsibility and cost-of-service, rate revenues should be reduced. The studies using 4 CP show Indices of Returns five to six times the Indices of Return calculated using other methods.

Q. Does KCPL view the BIP method to be superior to the 4 CP method for allocating production facility costs for purposes of performing CCOS studies?

A. Yes. KCPL witness Paul Normand states in his rebuttal testimony filed in this case on December 10, 2010, that the 4 CP allocation of production facility costs produces rather large cost allocation shifts and inequities (Normand, Rebuttal Testimony, page 7). Staff's and KCPL's BIP methods, although different, do recognize the importance of distinguishing various generation fixed and variable costs by the type of generation—base, intermediate, peak.

Q. Mr. Normand states on page 5 of his rebuttal testimony that Staff's Production-Capacity Base allocator double dips by using total annual energy and that Staff magnifies the class allocation amount based on NCP information in the intermediate and peaking component of the BIP method. Do you agree with Mr. Normand's characterization that Staff's Production-Capacity allocator double dips?

A. No. Mr. Normand does not define or explain double dip. Staff calculates a base component, an intermediate component, and a peak component in its BIP method. The intermediate component is calculated less the base component already allocated. The peak component is calculated less the base and intermediate component already calculated. Therefore, Staff does not double dip in its base, intermediate, and peak component, as usage characteristics are calculated less the components already allocated.

Precision of Energy Component in Tariff Rates

Q. Have you reviewed the precision of the energy-based rate elements on KCPL rate schedules in its tariff as proposed by KCPL?

A. Yes. KCPL proposes a change to the precision of the energy-based rate elements in the Residential (RES), Medium General Service (MGS) and Large General Service (LGS) rate schedules to five decimal places instead of four. Currently, the Small

General Service (SGS) and Large Power Service (LPS) energy-based rate elements on KCPL's rate schedules are five decimal places. Staff supports KCPL proposal to make all the energy-based rate elements of KCPL's rate schedules consistent, to five decimal places.

Rate Design Recommendations

Q. What is KCPL's response to Staff's rate design proposal?

A. That response is found in the rebuttal testimony of KCPL witness Mr. Rush. In Mr. Rush's testimony KCPL recommends the Commission reject Staff's proposed rate design and that its requested increase be spread to all customer classes and all rate elements on an equal percentage basis.

Q. Do KCPL's CCOS study results support KCPL's rate design request?

A. No. KCPL's own CCOS study shows that for certain customer classes the rate schedule revenue responsibility of the class far exceeds the cost to serve the class (revenue exceeds cost to serve). (Table 3, Paul Normand, Direct Testimony, page 19) For example, KCPL's CCOS study shows a SGS Index of Return of 1.97 and a MGS Index of Return of 1.13. An Index of Return above 1.0 indicates the revenue responsibility of the customer class exceeds KCPL's cost to provide service to that class; therefore, to equalize revenue responsibility and cost-of-service, rate revenue responsibility should be reduced for these classes. KCPL's CCOS study shows an Index of Return of 0.67 for LPS indicating that KCPL's cost to serve the LPS class exceeds the revenue responsibility of that class and, therefore, that its rates, on an overall KCPL revenue neutral basis, should be increased. It is Staff's position, that, instead of increasing the rates (revenue responsibility) of each class by the same percentage, adjustments should be made to move the revenue responsibility of each

customer class closer to KCPL's cost to serve that class as determined by an adequate CCOS study.

Q. Do you agree with KCPL's characterization of Staff's rate design recommendation?

A. No. Mr. Rush states:

> [I]n the residential class, the summer rates for all the classes in Staff's CCOS have the same service charge and the same energy prices, yet Staff's proposal recommends the rate design be applied and a percentage basis to each rate, so it will not disrupt the overall rate design. However, that is exactly what the Staff proposal does. It disrupts the rate design. This same consistency in service charges, facilities charges, summer and winter energy prices. Staff's proposal disrupts this consistency. (Rush, CCOS Rebuttal Testimony, page10)

Staff's recommended residential class summer rates and service charges are held consistent with Staff's overall rate design for the residential class. If each residential rate element receives the same equal percentage increase, the relationship that currently exists for summer rates and customer charges are not disrupted as implied by Mr. Rush.

Q. Do you disagree with any other characterizations of Staff's positions Mr. Rush makes in his rebuttal testimony filed in this case on December 10, 2010?

A. Yes. Mr. Rush states that with the exception of the Electric Space Heating rates for KCPL's Small and Medium rate schedules, rates increases have been applied uniformly to the non-residential classes since Case No. ER-2006-0314 (Rush, CCOS Rebuttal Testimony, page 11).

Q. What do you disagree with about this statement?

A. The Experimental Alternative Regulatory Plan the Commission approved and ordered in Case No. EO-2005-0329 (Regulatory Plan) outlines a series of four annual rate

filings contemplated during the construction of Iatan 2. This case, Case No. ER-2010-0355, is the fourth and last case in KCPL's Regulatory Plan. Tables 2, 3, and 4 (below) are a summary of the revenue neutral changes associated with the first three cases in KCPL's Regulatory Plan.

Table 2
Interclass Revenue Shifts
Revenue Neutral Changes to Class Revenues From Case No. ER-2006-0314

	RES	SGS	MGS	LGS	LPS	Lighting	System Average
Revenue Neutral % Change	2.00%	-0.45%	-0.45%	-0.45%	-2.54%	0.00%	0.00%

Table 3
Interclass Revenue Shifts
Revenue Neutral Changes to Class Revenues From Case No. ER-2007-0291

	RES	SGS	MGS	LGS	LPS	Lighting	System Average
Revenue Neutral % Change	1.80%	0.00%	-5.00%	0.00%	0.00%	0.00%	0.00%

Table 4
Interclass Revenue Shifts
Revenue Neutral Changes to Class Revenues From Case No. ER-2009-0089

	RES	SGS	MGS	LGS	LPS	Lighting	System Average
Revenue Neutral % Change	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%

Table 2 shows that revenue neutral changes occurred for all classes except lighting in Case No. ER-2006-0314. Table 3 shows that revenue neutral changes occurred for the RES and MGS classes in Case No. ER-2007-0291, the second case in KCPL's Regulatory Plan. In this case the Commission explicitly and specifically ordered inter-class revenue responsibility shifts, contrary to Mr. Rush's rebuttal testimony in this case. In its Report and Order in that case, the Commission, at page 69, stated:

> The meaning of the disputed language from the Stipulation and Agreement in Case No. EO-2005-0329 allows parties to propose inter-class shifts. The proper inter-class shift is to move $3,536,542 of current revenue responsibility from medium general service (MGS) to residential, resulting in a 5% decrease to the Medium General Service (MGS) class, and a 1.8% increase to the residential class.

Table 4 shows that no revenue neutral changes occurred in KCPL's last case, Case No. ER-2009-0089.

Comparison of Rate Design Recommendations

Q. Have you prepared a summary of the rate design proposal the parties are presenting in their direct and rebuttal cases?

A. Yes. For ease of reference, in Schedule MSS-S1, I have summarized the revenue neutral results for all the parties that presented rate design testimony in their direct or rebuttal cases. Included in the schedule is: identification of the sponsoring party, the approximate percent change by rate schedule, and footnotes detailing each proposal based on a Commission ordered increase to KCPL's rates in this case. If the Commission orders a decrease to KCPL's rates, Schedule MSS-S1 is not helpful.

Q. What specifically does the Commission need to order to implement Staff's recommendation on the issues you've addressed in prefiled testimony?

A. The Commission would need to order KCPL to: (1) allocate the first $13 million of any Commission ordered increase as an equal percentage to the rate schedules where the revenue responsibility of the class is less than KCPL's cost to serve the class; (2) allocate any Commission ordered increase above $13 million to all rate elements on all rate schedules on an equal percentage basis; (3) allocate any Commission ordered decrease on an equal percentage basis to all rate elements on all rate schedules where the revenue

responsibility of the class served on that schedule exceeds KCPL's cost to serve the class, and each of the following:

1. Eliminate those frozen General Service All-Electric space heating rate schedules where no customers are currently served, retain all other existing rate schedules and implement any revenue requirement increase resulting from this case as follows:

2. Implement, with certain modifications, the new Residential Other Use (ROU) tariff provision KCPL has proposed.

3. Implement the "Collection Charge" provision KCPL has proposed.

4. Complete its evaluation of Light Emitting Diode (LED) Street and Area Lighting (SAL) systems and, no later than 12 months of the effective date of the Commission's Report and Order in this case, file proposed LED lighting tariff sheet(s) to offer a LED SAL demand-side program, unless KCPL's analysis shows that a LED SAL demand-side program would not be cost-effective, and if a LED SAL demand-side program is not cost-effective, update the Staff as to the finding's rationale and file a proposed tariff sheet(s) that would provide LED SAL services at cost to its customers.

5. Make the following modifications concerning the miscellaneous tariff issues:

P.S.C. MO. No. 7 (Rates)

1. All Sheets – Footer: "Curtis D. Blanc, Sr. Director" change to "Senior Director" [appears to be Curtis D. Blanc, Sr.]

2. Sheet No. TOC-1 – add "Residential Other Use, Schedule ROU"; delete "Incremental Energy Rider, Schedule IER"

3. Sheet Nos. 14A, 14B – add summer and winter rate headings

4. Sheet Nos. 30 – 37G, header – change "Rate Area No. (1)(3) – Urban Area" to "Missouri Retail Service Area"

5. Suggestion: Sheet No. 33, Private Lighting – insert "1¾%" after the words in next to last paragraph

6. Sheet Nos. 35, 35A – move "Limited to the units in service on April 18, 1992, until removed" from 35A to 35; Sheet No. 35 – change "*" to"(2)"

Twin lamps shall ….; Sheet No. 35A – delete "RATE (Optional Equipment): (continued)"

7. Sheet No. 35B - change "*" to"(1)" at end of paragraph 10.0; add footnote "(2) Limited to the units in service on May 4, 2011, until removed" to paragraph10.1

8. Sheet No. 37B – add "This basic … continuously thereafter." and "North Kansas City 23rd and Howell, 23rd and Iron"; ERROR: need period at end of (6) last paragraph

9. Sheet No. 37G – add "(18) Traffic Signal Pole."

P.S.C. MO. No. 2 (Rules)

1. Sheet No. 1.17 - header – change "Rate Area No. (1)(3) – Urban Area" to "Missouri Retail Service Area"; under 4.10 Tampering With Company Facilities – add "or unauthorized use" and "associated" and "including, but … charges, and" – delete "the" and "for".

2. Sheet No. 1.28 – add section heading "8. Billing And Payment (continued)"

Incremental Energy Rider, Schedule IER

Delete the rate schedule entitled "Incremental Energy Rider, Schedule IER" as proposed by KCPL presently on Sheet Nos. 24, 24A, 24B.

Municipal Street Lighting Service, Schedule 1-ML: RATE (Mercury Vapor) 7.0, 7.1

Delete street light entitled "RATE (Mercury Vapor) 7.0, 7.1" presently on Sheet No. 35.

Collection Charge

Add rule 8.08 entitled "Collection Charge" on Sheet No. 1.28. Implement a fee of $25.00 for customer collection by a field service person making a final collection attempt at the meter location prior to the meter to be disconnected for non-payment. The fee is consistent with collection charges of other regulated electric utilities.

Q. Does this conclude your surrebuttal testimony?

A. Yes, it does.

Missouri Public Service Commission
Case No. ER-2010-0355
Rate Design Proposals (revenue neutral adjustments)

Residential	**KCPL**	**Staff (1)**	**OPC (2)**	**Industrials (4)**	**DOE**	**MGE**
Regular	Sys. Avg.	Sys. Avg. + 1.1%	Sys. Avg.	+2.7% + Sys. Avg.	Sys. Avg.	
All Electric	Sys. Avg.	Sys. Avg. + 1.1%	Sys. Avg.	+2.7% + Sys. Avg.	Sys. Avg.	Eliminate rate Sch.
Separately Metered	Sys. Avg.	Sys. Avg. + 1.1%	Sys. Avg.	+2.7% + Sys. Avg.	Sys. Avg.	Eliminate rate Sch.
Time of Day	Sys. Avg.	Sys. Avg. + 1.1%	Sys. Avg.	+2.7% + Sys. Avg.	Sys. Avg.	
Small General Service						
Primary & Secondary	Sys. Avg.	Sys. Avg. - 1.9%	-7.7% + Sys. Avg.	-4.6% + Sys. Avg.	Sys. Avg.	
Other	Sys. Avg.	Sys. Avg. - 1.9%	-7.7% + Sys. Avg.	-4.6% + Sys. Avg.	Sys. Avg.	
All Electric (3)	Sys. Avg.	Sys. Avg. - 1.9%	-7.7% + Sys. Avg.	-4.6% + Sys. Avg.	Sys. Avg.	
Separately Metered (3)	Sys. Avg.	Sys. Avg. + 1.1%	-7.7% + Sys. Avg.	-4.6% + Sys. Avg.	Sys. Avg.	
Medium General Service						
Primary	Sys. Avg.	Sys. Avg. - 1.9%	-0.5% + Sys. Avg.	-1% + Sys. Avg.	Sys. Avg.	
Secondary	Sys. Avg.	Sys. Avg. - 1.9%	-0.5% + Sys. Avg.	-1% + Sys. Avg.	Sys. Avg.	
All Electric (3)	Sys. Avg.	Sys. Avg. - 1.9%	-0.5% + Sys. Avg.	-1% + Sys. Avg.	Sys. Avg.	
Separately Metered (3)	Sys. Avg.	Sys. Avg. + 1.1%	-0.5% + Sys. Avg.	-1% + Sys. Avg.	Sys. Avg.	
Large General Service						
Primary	Sys. Avg.	Sys. Avg. - 1.9%	Sys. Avg.	-2.2% + Sys. Avg.	Sys. Avg.	
Secondary	Sys. Avg.	Sys. Avg. - 1.9%	Sys. Avg.	-2.2% + Sys. Avg.	Sys. Avg.	
All Electric (3)	Sys. Avg.	Sys. Avg. + 1.1%	Sys. Avg.	-2.2% + Sys. Avg.	Sys. Avg.	
Separately Metered (3)	Sys. Avg.	Sys. Avg. + 1.1%	Sys. Avg.	-2.2% + Sys. Avg.	Sys. Avg.	
Large Power Service						
Primary	Sys. Avg.	Sys. Avg. + 1.1%	+3.2% + Sys. Avg.	Sys. Avg.	Sys. Avg.	
Secondary	Sys. Avg.	Sys. Avg. + 1.1%	+3.2% + Sys. Avg.	Sys. Avg.	Sys. Avg.	
Substation	Sys. Avg.	Sys. Avg. + 1.1%	+3.2% + Sys. Avg.	Sys. Avg.	Sys. Avg.	
Transmission	Sys. Avg.	Sys. Avg. - 1.9%	+3.2% + Sys. Avg.	Sys. Avg.	Sys. Avg.	
Lighting	Sys. Avg.	Sys. Avg. - 1.9%	Sys. Avg.	Sys. Avg.	Sys. Avg.	

These are Staff's understanding of proposed rate designs. Percents are approximate. Percents may vary based on Commission decision on revenue requirement. If the Commission orders a decrease to KCPL's rates, Schedule MSS-S1 would be calculted differently as detailed in footnotes below.

(1) Allocate the first $13 million of any Commission ordered increase as an equal percentage to the rate schedules to have a positive percent (revenue is less than the cost to serve). Allocate any Commission ordered increase above $13 million to all rate schedules on an equal percentage basis. Allocate any Commission ordered decrease as an equal percentage decrease to the rate schedules where revenues exceed cost to serve.

(2) Public Counsel recommends that if the Commission determines that an overall increase in revenue requirement is necessary, then no customer class should receive a net decrease as the combined result of: (1) the revenue neutral shift that is applied to that class, and (2) the share of the total revenue increase that is applied to that class. Likewise, if the Commission determines that an overall decrease in revenue requirement is necessary, then no customer class should receive a net increase as the combined result of: (1) the revenue neutral shift that is applied to that class, and (2) the share of the total revenue decrease that is applied to that class.

(3) The General Service All-Electric rate schedules are frozen (grandfathered) where the Commission has restricted the availability of the All Electric and Separately Metered Space Heating rate schedules to customers currently served on one of those rate schedules, but only for so long as the customer continuously remains on that rate schedule.

(4) Industrials also recommend intra-class adjustments to the design of the Large Power Service and Large General Service rates.