

Exhibit No.: **KCP&L-48**
Issue: Class Cost of Service
Witness: Paul M. Normand
Type of Exhibit: Rebuttal Testimony
Sponsoring Party: Kansas City Power & Light Company
Case No.: ER-2010-0355
Date Testimony Prepared: December 10, 2010

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: ER-2010-0355

REBUTTAL TESTIMONY

OF

PAUL M. NORMAND

ON BEHALF OF

KANSAS CITY POWER & LIGHT COMPANY

**Kansas City, Missouri
December 2010**

**KCP&L Exhibit No. KCP&L 48
Date 2/4/11 Reporter LMB
File No. ER-2010-0355**

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1	Description of Allocation Factors from NARUC Cost Allocation Manual

REBUTTAL TESTIMONY

OF

PAUL M. NORMAND

Case No. ER-2010-0355

1 **Q: Please state your name, address and position.**

2 A: My name is Paul M. Normand. I am a management consultant and president with the
3 firm of Management Applications Consulting, Inc., 1103 Rocky Drive, Suite 201,
4 Reading, PA 19609. I am testifying on behalf of Kansas City Power & Light Company
5 (“KCP&L” or the “Company”)

6 **Q: Are you the same Paul M. Normand who prefiled Direct Testimony in this matter?**

7 A: Yes, I am.

8 **Q: What is the purpose of your rebuttal testimony?**

9 A: To provide rebuttal comments to the direct testimony filed by other parties in this case
10 concerning Kansas City Power & Light’s (“KCP&L” or “Company”) class cost of service
11 (“CCOS”) study.

12 **Q: Have you reviewed the testimony filed by other parties concerning the Company’s
13 CCOS study?**

14 A: Yes, I have.

15 **Q: Please describe that testimony?**

16 A: Testimony related to KCP&L’s CCOS study was filed by the Staff of the Missouri Public
17 Service Commission of the State of Missouri (“Staff” or “Commission”). Staff also
18 prepared a separate CCOS study report which was part of Staff witness Michael S.
19 Scheperle’s direct testimony.

1 Q: Did any other party other than KCP&L and Staff prepare and file a CCOS in this
2 case?

3 A: Yes. Two additional witnesses prepared testimony and cost of service details which I
4 will be commenting on in this rebuttal testimony—Mr. Maurice Brubaker and Dr. Dennis
5 W. Goins representing large energy users served by KCP&L.

6 Q: Could you briefly show a comparison of the various CCOS presented in this filing?

7 A: The following (Table 1) class cost of service rates of return for the provided studies:

8

Table 1

MO Customer Class	KCP&L	Goins' DOE	Brubaker's Industrial
Total Jurisdiction	6.40%	6.40%	6.40%
Residential	6.25%	4.20%	4.51%
Small Gen. Service	12.59%	13.45%	11.32%
Medium Gen. Service	7.23%	7.76%	7.28%
Large Gen. Service	6.52%	8.31%	8.57%
Large Power	4.26%	6.22%	6.39%
Total Lighting	8.17%	39.16%	6.36%

Note: MPSC Staff utilized a different method to perform their study ROR not directly available.

9

10 Q: What is the purpose of the CCOS study?

11 A: The purpose of a CCOS study is to directly assign costs based on Company records or
12 allocate each relevant and identifiable component of cost on an appropriate basis in order
13 to determine the proper cost to serve the Company's customer classes under study.

14 Q: How is this analysis used to determine customer rates?

15 A: The results of the CCOS study are used to provide guidance in applying any overall rate
16 change to the Company's individual customer classes. Once the overall rate change is
17 assigned to the individual classes, the CCOS study can be used to examine individual rate

1 designs and make changes to the rate components of customer charge, demand charge,
2 and energy charge.

3 **Q: Is there a fundamental difference between the Staff's CCOS study approach and the**
4 **Company's CCOS study?**

5 A: Staff's overall approach to recognizing the importance of distinguishing various
6 generation fixed and variable costs by type of generation based on the Base, Intermediate,
7 and Peaking (BIP) method is consistent with the cost of service study that I presented.
8 By using the BIP method, Staff has also recognized the importance of production class
9 allocation by matching the use and benefit of almost three-quarters of KCP&L's costs of
10 service. By layering these costs and synchronizing their respective class allocation
11 factors in a more robust cost responsibility assignment, a more equitable class allocation
12 can be achieved. (See Staff Report, pages 10-15.) Contrary to Mr. Brubaker's assertion,
13 this approach to production allocation is well recognized in the industry, and I have used
14 this approach as well as similar methods for over 30 years. Admittedly, the method does
15 require more data and preparation than the more simplistic 4 CP method, however the
16 additional effort is warranted to properly consider the addition of a major base load unit
17 to the company's production plant. I should also note that I have never advocated the use
18 of a 4 CP production allocator. Attachment 1 is a description of the various production
19 allocation factors taken from the NARUC Cost Allocation Manual (1992).

20 My disagreement with respect to Staff's production approach is primarily in the
21 second step with respect to the cost allocations to customer classes once the identification
22 by type of generation was identified as follows:

1

Table 2

<u>Production Plant</u>	<u>Staff</u>	<u>KCP&L</u>
Base Units	Annual Energy	Base Energy
<i>Comment: Staff's approach double dips by using total annual energy.</i>		
Intermediate Units	12 NCP Less Base	12 CP Less Base
<i>Comment: Staff magnifies the class allocation amount based on NCP rather than recognizing the monthly CP limitation.</i>		
Peaking Units	4 NCP Less Base & Immediate	4 CP Less Base & Intermediate
<i>Comment: Staff continues to magnify the class allocations by basing their allocator on NCP levels versus a 4 CP level.</i>		

2

3 **Q: Why do you disagree with Staff's production class allocation approach in their**
4 **CCOS?**

5 **A:** The structure of Staff's approach was essentially quite similar to what I proposed for
6 KCP&L using the BIP; however the choice of non-coincident peak or NCP data for the
7 class allocation of intermediate and peaking units, incorrectly skews the results somewhat
8 from my study.

9 **Q: Please explain.**

10 **A:** As mentioned in the comments of Table 2, the use of NCP data serves to incorrectly
11 increase the cost allocation to the Residential class for what are total integrated system
12 costs. This is because utilities dispatch generating capacity to match hourly peaks. NCP
13 methods are traditionally utilized for allocation of distribution plant where it is desirable
14 to recognize the higher undiversified demands imposed on facilities located closer to
15 customers.

16 **Q: And what is the outcome of this difference with respect to the results of Staff study?**

1 A: As mentioned in the comment of Table 1, Staff did not produce a rate of return as part of
2 their study so direct comparison with the other studies is not directly available. Staff
3 chose to represent the classes with respect to their revenue deficiencies. Accordingly, the
4 Staff study shows the Residential class is deficient by 7.6%, Small General Service is in
5 over by 21.1%, Medium General Service is over by -4.1%, Large General Service is over
6 by -4.2% and Large Power is deficient by 6.9%. While these amounts cannot be directly
7 compared to the values in Table 1, they do provide a sense that the NCP allocations used
8 within the BIP structure have tended to shift costs from the large, energy users to the
9 residential customers.

10 Q: **Have you reviewed the direct testimonies of Dr. Goins and Mr. Brubaker?**

11 A: Yes, I have.

12 Q: **Are there any fundamental differences between Dr. Goins' and Mr. Brubaker's
13 CCOS study approach and the Company's CCOS study?**

14 A: Yes, both Dr. Goins and Mr. Brubaker provide a modified version of my study chose to
15 limit their presentation to the major classes. Since their studies do not break down costs
16 by season or by any further detail than Class level, their studies provide very limited
17 insight into any credible rate design proposal.

18 Q: **Do you agree with their recommended use of a 4 CP allocation from production and
19 transmission facilities?**

20 A: No, I do not. Their only recommendation is the use of a 4 CP allocation which has very
21 limited use in the allocation process especially for production facilities. Unless all
22 customers exhibit the same usage characteristics or all production facilities exist as only

1 peaking types with the same cost structures, advocating a 4 CP class allocation produces
2 rather large cost allocation shifting and inequities.

3 **Q: Why is it important that production allocation methods such as the BIP be**
4 **reasonable?**

5 A: The use of a production stacking approach such as the BIP to the class allocation for the
6 largest portion (approximately 75%) of a utility's costs is by far the most representative
7 procedure that mirrors both the planning as well as the operation of any utility's
8 production facilities.

9 Utilities must provide energy for all hours of the year (Figure 1) based on a load
10 duration curve which is simply the combined hourly usage of all customers. To
11 accomplish this, the overall resource planning effort is quite complex and considers a
12 myriad of costs and engineering factors associated with planning.

13 The BIP method allows for a more complete recognition of the dual nature of
14 generating resources and provides a more structured and precise way to model the costs
15 and develop appropriate class allocators for production plant.

16 As Figure 2 shows, the annual load duration curve is segmented by horizontal
17 partitions (dashed lines) to identify various energy threshold requirements that will be
18 provided by KCP&L from its available generation resources. Figure 2 also shows the
19 class allocations that I have recommended as appropriate for the corresponding
20 production facilities. Figure 3 is a separate representation of Figures 1 and 2 which
21 represents the Company's monthly coincident peaks with the four (4 CP) and twelve (12
22 CP) identified as dashed lines. A review of these figures clearly demonstrates that a

1 simple 4 CP approach is totally inappropriate for either production or transmission cost
2 allocation to customer classes.

3 Finally, the BIP method introduces reasonable and sufficient detail into the
4 production cost causation to allow a detailed examination of seasonal costs and any
5 resulting seasonal pricing evaluations.

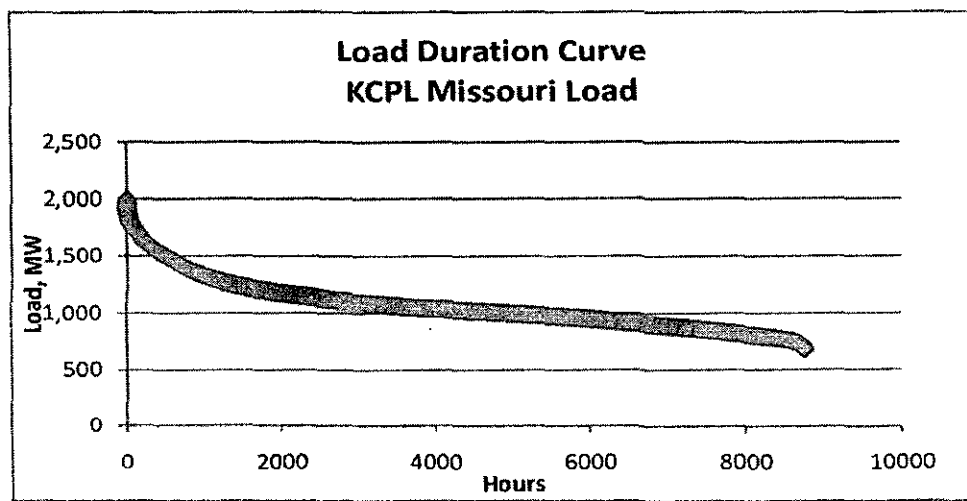


Figure 1

6

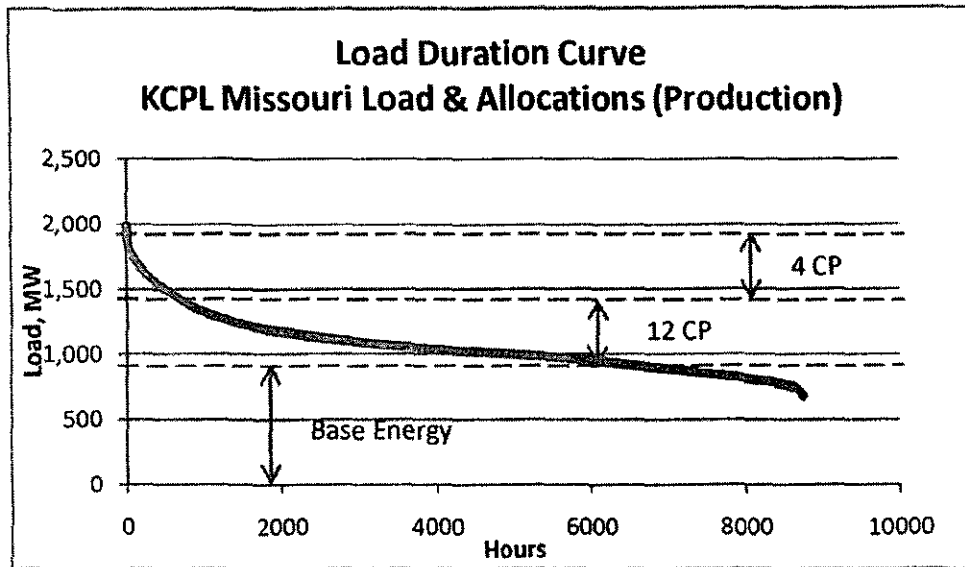


Figure 2

1

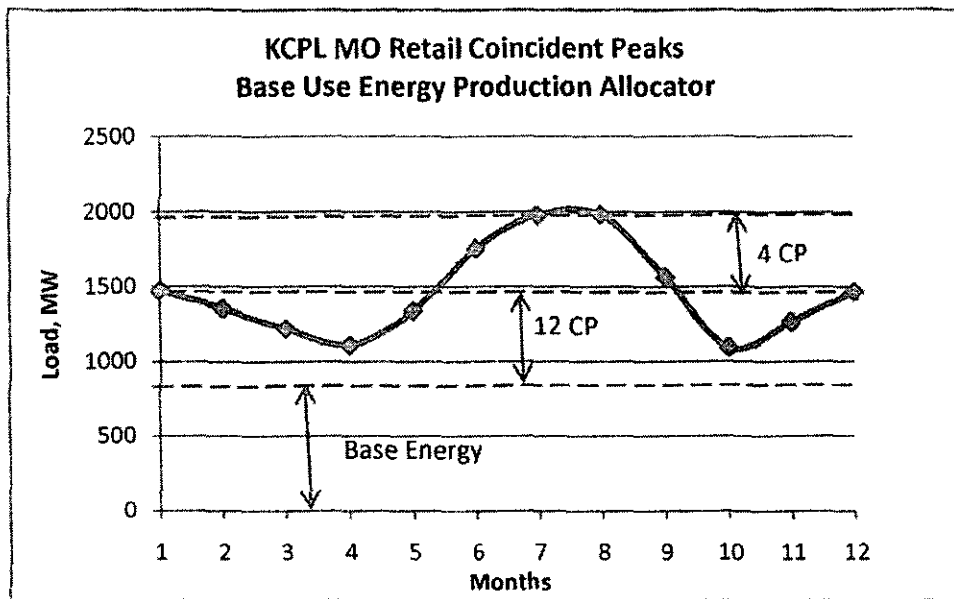


Figure 3

2

1 Q: What is another important aspect in the allocation of production plant?

2 A: From both a planning and operation point of view, there are two costs that represent
3 production facilities: fixed and variable. Unless these two costs are synchronized in the
4 allocation process, a potentially severe and material misallocation will occur in class cost
5 allocation. This can be clearly evidenced by simply reviewing my Schedule PMN-3 of
6 my Direct Testimony at the Uniform Rate of Return (9.04%) section (Page 29). The
7 various unbundled costs which make up the total revenue requirement for the Company
8 based on the cost of service assumptions included in the model are as follows:

9 **Table 3**

	<u>(\$M)</u>	<u>%</u>
<u>Demand</u>		
Production	346.9	45.6
Transmission	36.8	4.8
Sub-Transmission	1.3	0.2
Distribution	129.9	17.1
Total Demand	514.9	67.7
<u>Energy</u>	208.7	27.4
<u>Customer</u>	37.4	4.9
Total Company	760.9	100.0
Total Production	555.6	73.0

10 The total production-related costs equal 45.1% (Demand) plus 27.5% (Energy), or
11 72.6% of total costs. Allocating 45.1% of all revenue requirements on simply one, two or
12 four coincident peaks is inadvisable and will distort the class allocation away from larger
13 energy users and, more importantly, deviate from the planning and operation process.

14 Table 4, below, summarizes these relationships and shows the percent
15 responsibility related to 4 CP versus energy use (column 5).

1

Table 4

**4 CP AND ENERGY COMPARISON
(with losses)**

<u>Class</u>	<u>4 CP (MW)</u> (1)	<u>%</u> (2)	<u>Energy @ Gen w/Losses (MWH)</u> (3)	<u>% Energy</u> (4)	<u>MWH per 4CP MW</u> (5) = (3) / (1)
Residential	765.2	42.0	2,787,139	30.5	3,642.3
Small GS	80.8	4.4	447,074	4.9	5,532.8
Medium GS	225.7	12.4	1,174,444	12.9	5,203.8
Large GS	398.1	21.9	2,429,101	26.6	6,101.7
Large Power	351.2	19.3	2,297,861	25.2	6,542.9
Total Excl Lighting	1,821.0	100.0	9,135,619	100.0	5,016.8

2

Table 4 presents class results that clearly show that the primary beneficiaries of production allocation factors based on a CP method are large energy users. Simply put, assigning 42% of fixed costs based on a 4 CP allocation when these customers can only consume 30% of the energy is illogical. As can be noted in column (5), large users use almost twice the energy per MW which is primarily provided by base resources of KCP&L.

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Transmission Plant

9

Q: Do you have similar concerns with transmission plant?

10

A: Yes, I do. While the transmission component of total revenue requirements is much less (4.2%), the basic arguments are the same with respect to the Company's transmission facilities. This is also clearly shown on Figure 3 attached.

11

12

13

Q: What allocation factor did you propose for transmission plant?

14

A: I proposed the use of a 12 CP which considers all of the Company's monthly peaks as the most representative of the Company's entire transmission plant investments. In doing so, my approach provides the following benefits:

15

16

- 1 1 – Well recognized method;
- 2 2 – Easily replicated;
- 3 3 – Much more stable and equitable than the limited CP methods;
- 4 4 – 12 CP better captures the backbone high voltage system;
- 5 5 – Inherent in this 12 CP method is an energy association that is implied; and
- 6 6 – Excludes the inadequate allocation of total energy as proposed by Staff.

7 **Q: Since your review of Staff's and other intervenors' testimonies, do you still believe**
8 **the results of KCP&L's CCOS study as proposed provide the most reasonable**
9 **results?**

10 A: Yes, I do. My approach is more realistic and more closely matches the planning and
11 operations of KCP&L's power system for all functional cost levels. This same approach
12 was recently proposed and filed in KCP&L's Kansas filing, Docket No. 10-KCPE-415-
13 RTS.

14 **Q: Did the Commission in Kansas accept your approach?**

15 A: Yes, in the final order dated November 22, 2010 the Commission endorsed my approach
16 and stated that "the BIP method provides more structure for modeling costs of production
17 plant and use of generating resources. It also allows for a detailed examination of
18 seasonal costs and corresponding seasonal rate allocations." Attributes that are also
19 directly relevant to this case.

20 **Q: Did the parties rely upon their CCOS study result in proposing a rate design**
21 **alternatives?**

22 A: Yes, despite the issues previously identified, the parties utilized their studies to propose
23 rate design changes. My study served as the basis for rate design alternatives addressed

1 by Company witness Timothy M. Rush in his Rebuttal Testimony.

2 **Q: Does that conclude your testimony?**

3 **A:** Yes, it does.

