

# Missouri Public Service Commission

703

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Issue: Rate Design/Class COS Witness: Michael R. Schmidt Type of Exhibit: Rebuttal Testimony Sponsoring Party: U.S. Department of Energy Case No.: ER-2014-0370

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

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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-2014-0370

#### **REBUTTAL TESTIMONY**

#### OF

#### **MICHAEL R. SCHMIDT**

#### **ON BEHALF OF THE**

# UNITED STATES DEPARTMENT OF ENERGY

#### **REPRESENTING THE FEDERAL EXECUTIVE AGENCIES**

May 7, 2015

45 DOG Exhibit No. 70 Date 6-15-15 Reporter A File NO. E.R. 2014-03

| 1  |    | I. INTRODUCTION AND QUALIFICATIONS  |
|----|----|---|
| 2  | Q. | PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.  |
| 3  | A. | My name is Michael R. Schmidt. My business address is 3322 SW Rolling Ct. Topeka,       |
| 4  |    | Kansas 66610.   |
| 5  | Q. | ARE YOU THE SAME MICHAEL SCHMIDT WHO HAS PREVIOUSLY                                     |
| 6  |    | FILED TESTIMONY IN THIS PROCEEDING?   |
| 7  | Α. | Yes. I previously filed direct testimony in this proceeding on April 16, 2015 regarding |
| 8  |    | class cost of service and rate design issues on behalf of the U.S. Department of Energy |
| 9  |    | ("DOE") representing the Federal Executive Agencies ("FEA") served by Kansas City       |
| 10 |    | Power & Light Company ("KCPL"), including the Richard Bolling Federal Complex and       |
| 11 |    | Whitaker Courthouse located in downtown Kansas City, Missouri, and the Bannister        |
| 12 |    | Federal Complex located south of the metropolitan area.                                 |
| 13 | Q. | ARE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE  |
| 14 |    | OUTLINED IN THAT TESTIMONY?   |
| 15 | А. | Yes. This information is included in Appendix A to my direct testimony.                 |
| 16 | Q. | WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY IN THIS                                  |
| 17 |    | PROCEEDING?   |
| 18 | A. | The purpose of my testimony is to rebut the Staff's position on the use of the base-    |
| 19 |    | intermediate-peak ("BIP") methodology of cost allocation for production plant and       |
| 20 |    | Staff's recommended system average increase to each customer class.                     |
| 21 | Q. | PLEASE SUMMARIZE YOUR PRIMARY FINDINGS AND CONCLUSIONS.                                 |
| 22 | A. | My rebuttal testimony may be summarized as follows:                                     |

| 1  | ٠ | The BIP methodology recommended by Staff has the effect of shifting costs to             |
|----|---|--|
| 2  |   | relatively high load factor users, generally those customers in the Large General        |
| 3  |   | Service ("LGS") and Large Power Service (LPS") rate classes.                             |
| 4  | • | I start with the unremarkable premise that, regardless of load factor or customer class, |
| 5  |   | all customers that use power during the peak period are responsible for the peak. Any    |
| 6  |   | of these types of customers could reduce their demand during the peak and thus           |
| 7  |   | reduce the peak.   |
| 8  | • | Given that the utility plans and constructs generation and purchases power to meet       |
| 9  |   | peak demand and all customers contribute to the peak, peak demand should be used         |
| 10 |   | to allocate demand-related (fixed) production costs.                                     |
| 11 | • | Fixed costs should be recovered through fixed charges to match cost causation with       |
| 12 |   | cost recovery.   |
| 13 | • | Since KCPL is a summer peaking utility, the four coincident peak ("4CP")                 |
| 14 |   | methodology recommended in my direct testimony is the logical method to use.             |
| 15 | ٠ | Cost based rates are the best way to assure efficient electricity consumption because    |
| 16 |   | all classes of customers pay the costs associated with serving each class. Interclass    |
| 17 |   | subsidies encourage wasteful consumption.  |
| 18 | • | Movement toward cost based rates in this and future rate cases will help to eliminate    |
| 19 |   | interclass subsidies.  |
| 20 | ٠ | The across-the-board increase recommended by the Staff in this case does nothing to      |
| 21 |   | move class revenue allocations toward cost of service.                                   |
| 22 |   |  |
| 23 |   |  |

| 1  |    | II. ALLOCATING DEMAND-RELATED PRODUCTION COSTS  |
|----|----|---|
| 2  |    | AND MOVEMENT TOWARD COST-BASED RATES  |
| 3  | Q. | HAVE YOU REVIEWED THE STAFF'S RATE DESIGN AND CLASS COST                                    |
| 4  |    | OF SERVICE REPORT AND THE TESTIMONY OF STAFF WITNESS  |
| 5  |    | MICHAEL S. SCHEPERLE FILED IN THIS CASE ON APRIL 16, 2015?                                  |
| 6  | A. | Yes I have.   |
| 7  | Q. | DO YOU AGREE WITH THE STAFF POSITION THAT THE BIP   |
| 8  |    | ALLOCATION METHODOLOGY BE USED AS THE BASIS FOR   |
| 9  |    | ALLOCATING FIXED DEMAND-RELATED PRODUCTION COSTS TO THE                                     |
| 10 |    | VARIOUS RATE CLASSES?   |
| 11 | A. | No, I do not agree with the use of the BIP methodology for production cost allocation       |
| 12 |    | purposes.   |
| 13 | Q. | WHY ARE YOU OPPOSED TO THE USE OF THE BIP METHODOLOGY?                                      |
| 14 | A. | The BIP methodology shifts costs to the higher load factor customers. This occurs           |
| 15 |    | because the BIP methodology uses energy consumption as an allocator during the base,        |
| 16 |    | intermediate, and peak periods respectively. I do not support the use of energy             |
| 17 |    | consumption, which is variable in nature, to allocate fixed costs. Fixed costs do not vary  |
| 18 |    | with consumption and must be paid for by customers regardless of usage. How we              |
| 19 |    | allocate those costs should be linked to peak demands that the capacity was built to serve. |
| 20 |    | In addition, the BIP methodology allocates a disproportionately large share of expensive    |
| 21 |    | baseload plant costs to high load factor classes compared to low load factor classes.       |
| 22 |    | Plant is built to serve the peak load of a utility. Production capacity is built (or        |
| 23 |    | acquired) to meet system peak demands-not average demands. The system peak                  |

| 1  |    | demand drives the need for production capacity-and customer contributions to the             |
|----|----|--|
| 2  |    | system peak should be the principal component of factors used to allocate fixed              |
| 3  |    | production costs. If production plant costs are allocated on the basis of average energy     |
| 4  |    | use, then low load factor, peak use customers receive the benefits of cheaper baseload       |
| 5  |    | (and intermediate) energy without paying a fair share of the capital costs for these plants. |
| 6  |    | Those customers who consume energy during the peak are responsible for the                   |
| 7  |    | expansion of generation plant and therefore should be responsible for the fixed costs        |
| 8  |    | associated with the plant operating during the peak period. The best way of assuring that    |
| 9  |    | those customers who consume energy during the peak pay for the required capacity in          |
| 10 |    | operation during the peak is to use an allocation method that is directly proportional to    |
| 11 |    | peak demand.   |
| 12 | Q. | WHICH CUSTOMER CLASSES ARE RESPONSIBLE FOR THE PEAK  |
| 13 |    | DEMAND?  |
| 14 | A. | All customers who are consuming power during the peak period are responsible for the         |
| 15 |    | peak. The high load factor customer, the medium load factor customer, and the customer       |
| 16 |    | that uses energy only during the peak period are responsible for the cost of fixed           |
| 17 |    | production plant to meet that peak. Any one of these types of customers could reduce         |
| 18 |    | their demand during the peak and thus reduce the system peak.                                |
| 19 |    | In addition, all types of plant - base, intermediate and peak - are in operation             |
| 20 |    | during the peak period and were built because of that peak load.                             |
| 21 |    | Since KCPL is a summer peaking utility, the 4CP methodology is the logical                   |
| 22 |    | method to use to allocate demand-related production costs.                                   |
| 23 |    |  |

| 1  | Q. | PLEASE REFER TO THE DIRECT TESTIMONY OF STAFF WITNESS   |
|----|----|---|
| 2  |    | MICHAEL S. SCHEPERLE AT PAGE 8 WHERE HE LISTS THE   |
| 3  |    | PERCENTAGE INCREASES REQUIRED TO BRING CLASS RATES IN   |
| 4  |    | LINE WITH STAFF'S CLASS COST OF SERVICE STUDY. DO YOU HAVE                                    |
| 5  |    | ANY COMMENTS ON THE RESULTS OF STAFF'S STUDY?   |
| 6  | A. | I do. Use of Staff's BIP methodology to allocate demand-related production costs to the       |
| 7  |    | various classes of service suggests that KCPL's rates for the LPS class should increase by    |
| 8  |    | 43 percent more than the system average percentage increase. Increasing rates as Staff's      |
| 9  |    | class cost of service study suggests would be a move in the wrong direction. That result is   |
| 10 |    | out of line with the Company's study and with my class cost of service study that             |
| 11 |    | allocated demand-related production costs using the 4CP methodology and indicate that         |
| 12 |    | rates for the LPS class should increase by substantially less than the system average         |
| 13 |    | percentage rate increase. Furthermore, allocating a disproportionately large share of costs   |
| 14 |    | to KCPL's largest customers, either in this case or in the future, reduces KCPL's relative    |
| 15 |    | competitiveness at retaining and attracting industrial customers.                             |
| 16 | Q. | ARE YOU SAYING THAT GOVERNMENT LOADS WILL LEAVE THE   |
| 17 |    | KCPL SYSTEM IF RATES ARE TOO HIGH?  |
| 18 | A. | No, that result is unlikely. However, in assigning new tasks to existing facilities and in    |
| 19 |    | locating new facilities, the U.S. government does consider utility costs. That said, the      |
| 20 |    | government supports the need for cost based rates to send proper price signals and to         |
| 21 |    | ensure the efficient use of electricity. Also, in cases where rates are seriously out of line |
| 22 |    | with the class cost of service, as in the instant case, the government supports the well-     |
| 23 |    | accepted regulatory principal of gradualism.  |

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# Q. ARE KCPL'S INDUSTRIAL RATES COMPETITIVE WITH OTHER REGIONS IN THE COUNTRY?

3 A. No. The rate of increase in KCPL's industrial rates over the last eight years has exceeded 4 every region in the country. Stated another way, all other regions of the country are 5 gaining ground on KCPL in terms of their relative competitiveness at attracting industrial 6 customers because escalation in their industrial rates is lower than KCPL. In fact, KCPL 7 has lost or nearly lost its competitive advantage over many of the regions in the central 8 U.S. with respect to industrial rates as shown in Table 1. For example, within the region 9 in which Missouri is located, KCPL moved from a position in the 2005-2006 time frame 10 of having industrial rates that were 6.8 percent below the average industrial rate for the 11 region to a position where its industrial rates exceeded the regional average by 5.2 12 percent. Consider also the fact that KCPL's industrial rates used to be nearly 25 percent 13 below the U.S. average and now they are less than 10 percent below that average. That 14 difference is significant, and any class cost of service study that would exacerbate that 15 negative trend, like Staff's BIP methodology, should be viewed with great skepticism.

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## Table 1

# Average Industrial Retail Rates<sup>(1)</sup>

|                             |              |         |        | KCPL's                         | Relative |                            |
|-----------------------------|--------------|---------|--------|--------------------------------|----------|----------------------------|
|                             | Average Rate |         |        | Competitiveness <sup>(2)</sup> |          |                            |
|                             | 2005 -       | 2013 -  | Growth | 2005 -                         | 2013 -   |                            |
|                             | 2006         | 2014    | Rate   | 2006                           | 2014     |                            |
| Utility/Region              | (¢/kWh)      | (¢/kWh) | (%)    | (%)                            | (%)      | States                     |
| KCPL                        | 4.23         | 6.31    | 5.1    |                                |          | МО                         |
| Central U.S.                |              |         |        |                                |          |                            |
| West North Central          | 4.54         | 6.00    | 3.5    | (6.8)                          | 5.2      | IA/KS/MN/MO/NE/ND/SD       |
| West South Central          | 5.83         | 5.40    | (0.9)  | (27.4)                         | 16.9     | AR/LA/OK/TX                |
| East North Central          | 5.03         | 7.30    | 4.8    | (15.9)                         | (13.5)   | IL/IN/MI/OH/WI             |
| East South Central          | 4.60         | 6.11    | 3.6    | (7.9)                          | 3.4      | AL/KY/MS/TN                |
| Mountain                    | 5.62         | 6.44    | 1.7    | (24.7)                         | (1.9)    | AZ/CO/ID/MT/NV/NM/UT/WY    |
| Coastal U.S.                |              |         |        |                                |          | ·                          |
| New England                 | 10.57        | 12.22   | 1.8    | (60.0)                         | (48.4)   | CT/ME/MA/NH/RI/VT          |
| Mid-Atlantic                | 6.74         | 9.29    | 4.1    | (37.2)                         | (32.1)   | NJ/NY/PA                   |
| South Atlantic              | 4.88         | 6.66    | 4.0    | (13.2)                         | (5.2)    | DE/DC/FL/GA/MD/NC/SC/VA/WV |
| Pacific                     | 7.70         | 9.10    | 2.1    | (45.0)                         | (30.6)   | CA/OR/WA                   |
| U.S. Average <sup>(3)</sup> | 5.59         | 6.92    | 2.7    | (24.3)                         | (8.7)    |                            |

<sup>(1)</sup> Edison Electric Institute, *Typical Bills and Average Rates Report Summer 2006* and *Typical* Bills and Average Rates Report Summer 2014. These reports include rates information for the current and prior years for the periods ending June 30th of each year.

(2) Measures KCPL's rates as a percentage below or above the comparative rate.

(3) Includes Hawaii.

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| Q. | WHAT IS STAFF'S RECOMMENDED ALLOCATION OF REVENUES TO |
|----|---|
|    |   |

THE RATE CLASSES?

4 A. Staff witness Scheperle is recommending an across-the-board increase with each rate

5 class receiving an equal percentage rate increase as stated on page 9, line 17, of his direct

6 testimony.

7 Q. DO YOU AGREE WITH THAT RECOMMENDATION?

8 No I do not. Staff is ignoring the role of cost based rates in sending proper price signals A. 9

for economic efficiency in the use of electricity. In addition, serious attention should be

| 1  |    | given to the negative trend in KCPL's industrial rates relative to other regions of the      |
|----|----|--|
| 2  |    | country. Rate increases of the magnitude proposed by the Company or Staff in this case       |
| 3  |    | will exacerbate that negative trend. Moving rates toward cost of service as I proposed in    |
| 4  |    | my direct testimony will mitigate the negative effects of this rate increase to some extent. |
| 5  | Q. | ON THE BASIS OF YOUR REVIEW OF WITNESS SCHEPERLE'S DIRECT                                    |
| 6  |    | TESTIMONY, DID YOU CHANGE ANY CONCLUSION OR  |
| 7  |    | RECOMMENDATION PRESENTED IN YOUR DIRECT TESTIMONY?   |
| 8  | A. | No. I continue to recommend that the Commission reject the BIP methodology for               |
| 9  |    | allocating fixed production costs to the rate classes. Instead, KCPL should be required to   |
| 10 |    | use the 4CP methodology. In addition, the Commission should cap rate increases for any       |
| 11 |    | particular rate class at the greater of one-third (33 percent) more than the system average  |
| 12 |    | percentage rate increase or three percent above the system average percentage rate           |
| 13 |    | increase. Class rate changes below the system average should be limited to double these      |
| 14 |    | levels (e.g. two thirds less than the system average) prior to any reallocation of revenues  |
| 15 |    | necessitated by the proposed caps on rate increases. Finally, the Commission should          |
| 16 |    | order the use of the 4CP methodology to allocate production related fixed costs for future   |
| 17 |    | cases and require additional movement toward the cost of service required to serve each      |
| 18 |    | customer class.  |
| 19 | Q. | DOES THIS COMPLETE YOUR REBUTTAL TESTIMONY?  |
| 20 | А. | Yes.   |
| 21 |    |  |
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#### 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-2014-0370

#### AFFIDAVIT OF MICHAEL R. SCHMIDT

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STATE OF KANSAS

COUNTY OF SHAWNEE

Michael R. Schmidt, being first duly sworn, on his oath states:

SS

1. My name is Michael R. Schmidt. I am an independent utility industry consultant

and my principal place of business is 3322 SW Rolling Ct. Topeka, Kansas 66610.

2. Attached hereto and made a part hereof for all purposes is my Rebuttal Testimony

on behalf of the United States Department of Energy which was prepared in written form for

introduction into evidence in the above-captioned docket.

3. I hereby swear and affirm that my answers contained in the attached testimony to

the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.

Michael R. Schmidt

Subscribed and sworn before me this 4 day of May, 2015.

Notary Public

My commission expires: April 29 201

