Exhibit No.: Issue: Witness: Type of Exhibit: Sponsoring Parties: Case No.: Date Testimony Prepared:

Rate Design Maurice Brubaker Surrebuttal Testimony Industrials ER-2010-0355 January 5, 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

Case No. ER-2010-0355

Surrebuttal Testimony and Schedule of

Maurice Brubaker

On behalf of

Ford Motor Company Midwest Energy Users Association Missouri Industrial Energy Consumers Praxair, Inc.

January 5, 2011



Project 9215

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

Case No. ER-2010-0355

STATE OF MISSOURI

COUNTY OF ST. LOUIS

SS

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Affidavit of Maurice Brubaker

Maurice Brubaker, being first duly sworn, on his oath states:

1. My name is Maurice Brubaker. I am a consultant with Brubaker & Associates, Inc., having its principal place of business at 16690 Swingley Ridge Road, Suite 140, Chesterfield, Missouri 63017. We have been retained by Ford Motor Company, Midwest Energy Users Association, Missouri Industrial Energy Consumers and Praxair, Inc. in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes is my surrebuttal testimony and schedule which were prepared in written form for introduction into evidence in the Missouri Public Service Commission's Case No. ER-2010-0355.

3. I hereby swear and affirm that the testimony and schedule are true and correct and that they show the matters and things that they purport to show.

Maurice Brubaker

Subscribed and sworn to before me this 4th day of January, 2011.



Notary Public

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Surrebuttal Testimony of Maurice Brubaker

1 Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

- 2 A Maurice Brubaker. My business address is 16690 Swingley Ridge Road, Suite 140,
- 3 Chesterfield, MO 63017.

4 Q ARE YOU THE SAME MAURICE BRUBAKER WHO HAS PREVIOUSLY FILED

5 **TESTIMONY IN THIS PROCEEDING?**

- 6 A Yes. I previously filed direct testimony in this proceeding on November 24, 2010 and
- 7 rebuttal testimony on December 10, 2010 regarding rate design issues.

8 Q ARE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE OUTLINED IN

9 ONE OF THESE TESTIMONIES?

- 10 A Yes. This information is included in Appendix A to my direct testimony on rate design
- 11 issues filed November 24, 2010.

12 Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

A I am appearing on behalf of Ford Motor Company, Midwest Energy Users
 Association, Missouri Industrial Energy Consumers and Praxair, Inc. (collectively)

Maurice Brubaker Page 1 "Industrials"). These companies purchase substantial amounts of electricity from
 Kansas City Power & Light Company ("KCPL") and the outcome of this proceeding
 will have an impact on their cost of electricity.

4 Q WHAT IS THE SUBJECT OF YOUR SURREBUTTAL TESTIMONY?

- A In my surrebuttal testimony, I will respond to certain portions of the Rebuttal
 Testimony of KCPL witnesses Normand and Rush, OPC witness Meisenheimer and
 MPSC Staff witness Scheperle.
- 8 The fact that I may not respond to a particular point or position should not be 9 interpreted as an endorsement.

10 **Response to KCPL**

11QAT PAGE 4 OF HIS TESTIMONY, MR. NORMAND TAKES ISSUE WITH THE12STATEMENT MADE IN YOUR TESTIMONY THAT HIS BIP APPROACH IS13OBSCURE AND INAPPROPRIATE. IN RESPONSE, HE CLAIMS IT IS WELL14RECOGNIZED IN THE INDUSTRY AND STATES HE HAS USED THIS APPROACH15AS WELL AS SIMILAR METHODS FOR OVER 30 YEARS. PLEASE RESPOND16TO MR. NORMAND'S TESTIMONY.

A I readily acknowledge that Mr. Normand has proposed the BIP method on a number
of occasions, and for a number of years. I also acknowledge that it is described in
the NARUC Cost Allocation Manual, but the fact that it is described in the manual
does not mean that it is endorsed by anyone, rather it is simply an explanation of
what the method is.

22 What Mr. Normand has not rebutted, and indeed cannot rebut, is that BIP is 23 an obscure and arcane method that has not found support in the industry. In this 1 regard, please refer to Schedule MEB-COS-SR-1 which is the response to MIEC 2 Data Request No. 2.1. In response to the request to identify rate proceedings that 3 Mr. Normand was aware of where the BIP method was adopted, all that Mr. Normand 4 was able to provide was a reference to the November 2010 decision by the Kansas 5 Corporation Commission in the KCPL latan 2 rate case. I would certainly think that if 6 Mr. Normand had succeeded in selling the BIP method during the last 30 or so years 7 that he has been promoting it, that he would be able find at least one instance where 8 it was adopted by a Commission prior to 2010.

9 Q AT PAGE 6 OF HIS TESTIMONY, MR. NORMAND BEGINS A CRITICISM OF THE 10 4 CP ALLOCATION METHOD AND CLAIMS THAT YOU, ALONG WITH MR. 11 GOINS, RECOMMENDED THE USE OF A 4 CP ALLOCATION METHOD FOR 12 PRODUCTION AND TRANSMISSION FACILITIES. IS THIS ACCURATE?

13 А No, it is not accurate. Mr. Goins recommended a 4 CP allocation method. My recommendation was to use an Average and Excess - 4 Non-Coincident Peak 14 ("A&E-4 NCP") method. Indeed, the rates of return that Mr. Normand attributes to me 15 on page 3 of his testimony are the rates of return under the A&E-4 NCP study which 16 17 appear on my Schedule MEB-COS-4. It is true that I also presented (in the Appendix 18 to my schedules) supplemental studies using 4 CP, and also A&E-2 NCP. I do not 19 know why Mr. Normand seems to think that I recommended 4 CP when, in fact, I 20 think it is very clear that I recommended A&E-4 NCP, the same method that this 21 Commission recently approved for application to the summer peaking utility on the 22 eastern side of the state, Ameren Missouri.

1QON PAGE 6 OF HIS TESTIMONY, MR. NORMAND FURTHER STATES THAT2ALTHOUGH YOU PROVIDE A MODIFIED VERSION OF HIS STUDY, YOU3LIMITED YOUR PRESENTATION TO THE MAJOR CLASSES, AND DID NOT4BREAKDOWN THE STUDIES BY SEASON OR ANY FURTHER DETAIL. IS MR.5NORMAND CORRECT?

A No. All Mr. Normand would have had to do was to look at the workpapers supplied in
association with my direct testimony. The workpapers contain the results of class
cost of service studies using my recommended method (and the alternatives as well)
in exactly the same rate schedule, voltage level and seasonal detail as Mr.
Normand's studies.

11 Q DO YOU HAVE ANY COMMENT ON THE TABLE ON PAGE 4 OF MR. 12 NORMAND'S REBUTTAL TESTIMONY?

13 Yes. Here he compares the 4 CP (used by Mr. Goins) and energy allocation factors А 14 and concludes that, since the residential class is allocated more cost on a 4 CP basis 15 than it is allocated on an energy basis, somehow the result is illogical. This is at the 16 heart of the problem with Mr. Normand's approach to cost allocation. It essentially 17 blurs the distinction between fixed costs and variable costs and masks the significant 18 differences in cost-causation presented by "peaking" load shapes as compared to 19 stable load shapes. I will also note that while Mr. Normand criticizes the 4 CP 20 demand allocation for allocating more fixed cost to residential customers than does 21 an energy allocator, that Mr. Normand's allocation of base load fixed costs to 22 residential customers is 15% less than the allocation factor for energy. Such a result 23 is completely illogical for a low load factor class that has high peaks in relation to its 24 average demand (energy).

1QON PAGE 12 OF HIS RATE DESIGN REBUTTAL TESTIMONY, KCPL WITNESS2RUSH DESCRIBES YOUR RATE DESIGN PROPOSAL. HAS HE DONE SO3ACCURATELY?

A No. He states that my proposal for the Large Power Service ("LPS") and Large
General Service ("LGS") rates is that no increase be applied to the last energy block,
which is the charge for usage over 360 kWh per kW. He fails to note, however, that I
also propose that the increase to the middle energy block (in between 180 hours use
and 360 hours use) would receive 75% of the average increase.

9 Q ON PAGE 13 OF HIS TESTIMONY, MR. RUSH ALLEGES THAT YOUR RATE 10 DESIGN WOULD NOT REFLECT COST-CAUSATION PRINCIPLES BECAUSE 11 THE PRIMARY DRIVERS FOR THIS INCREASE ARE IATAN 2 AND 12 FUEL-RELATED COSTS. DO YOU AGREE?

13 No, I do not. Clearly, the overwhelming component of the revenue requirement А associated with latan 2 is fixed costs. As my proposals indicate, those fixed costs are 14 15 properly reflected in demand charges, not in energy charges. Furthermore, the fixed 16 costs as well as all the variable costs associated with the revenue requirement in this 17 case are reflected in the class cost of service studies and properly allocated to 18 classes using cost of service methodologies that have previously been approved by 19 this Commission. I am at a loss to understand why Mr. Rush thinks that, despite the 20 fact all costs are properly reflected in the cost study and in the rate analysis, there 21 remains some distortion. The fact is that there is distortion in the current rates 22 because entirely too much of the Company's fixed costs are collected in the high load 23 factor energy blocks, thereby over-burdening high load factor customers who utilize 24 the system efficiently and reduce average costs.

1QAT THE TOP OF PAGE 13 OF HIS REBUTTAL TESTIMONY, MR. RUSH2CONTENDS THAT YOUR RATE DESIGN WILL RESULT IN A DISTORTION OF3THE CURRENT OVERALL RATE DESIGN BETWEEN CLASSES AND WILL4"...RESULT IN MANY CUSTOMERS SWITCHING RATES." HOW DO YOU5RESPOND TO MR. RUSH?

6 А Mr. Rush makes this statement without having performed any studies, as indicated in 7 his response to MIEC Data Request No. 3-1. As part of his response, he refers to the 8 rebuttal testimony of Commission Staff witness Scheperle and recites a range of 9 increases to the LPS customers that Mr. Scheperle reported in his rebuttal testimony. 10 As I will describe later in responding to Mr. Scheperle, the worksheets that Mr. 11 Scheperle used to calculate the impacts on individual LPS customers contain a 12 number of incorrect cell references which produces a highly distorted and incorrect 13 analysis. Mr. Rush has done no studies of his own, but rather has relied upon Staff. 14 Thus, if Staff's analysis is shown to be faulty, Mr. Rush has absolutely no basis for his 15 claims.

16 **Response to Commission Staff**

17 Q AT PAGE 4 OF HIS REBUTTAL TESTIMONY, IN A FOOTNOTE, MR. SCHEPERLE
 18 GENERALLY DESCRIBES THE ECONOMIC CHARACTERISTICS OF DIFFERENT
 19 TYPES OF GENERATION UNITS. DID YOU TAKE THIS INTO CONSIDERATION
 20 IN YOUR SELECTION OF THE A&E-4 NCP METHODOLOGY?

A Yes, I did. And, in my rebuttal testimony, I illustrated the technology tradeoffs and explained why, even if an analyst wanted to give more weight to the classes' relative energy usage, only energy use up to a certain point (load factor) was relevant in driving a technology choice and that using annual energy as a basis to allocate any generation fixed cost was wrong. Nothing in Mr. Scheperle's rebuttal testimony
 changes those facts.

Q AT THE TOP OF PAGE 6 OF HIS REBUTTAL TESTIMONY, MR. SCHEPERLE
 DESCRIBES THE A&E METHOD AS CONSISTING OF AN AVERAGE PART AND
 AN EXCESS PART. HE DESCRIBES THE EXCESS PART AS A MEASURE OF
 DEMAND EQUAL TO EACH CLASS'S CONTRIBUTION TO THE SYSTEM PEAK
 LOAD. IS THIS THE CORRECT DESCRIPTION?

8 A No. The excess portion of the Average and Excess ("A&E") method is equal to the
9 difference, for each class, between the non-coincident peak (in the case at hand the
10 average of the 4 non-coincident peaks) and the average demand.

Q AT THE BOTTOM OF PAGE 6 OF HIS REBUTTAL TESTIMONY, MR.
 SCHEPERLE ALLEGES THAT THE A&E METHODS ARE BASED ON AN
 ASSUMPTION THAT ADDITIONAL GENERATION FACILITIES ARE ONLY BUILT
 TO MEET PEAK DEMANDS. IS HE CORRECT?

A No. The A&E method considers both class average demands and the maximum demands of each class. This, indeed, is the strength of the A&E method. Under the A&E method, every customer class is assigned at least its average demand.
Furthermore, no customer class is over-allocated fixed costs (as is the case with the BIP method – which allocates 100% of the fixed costs associated with base load facilities on class kWh), without regard to important class load characteristics like the maximum requirements of the classes.

Maurice Brubaker Page 7 1QON PAGE 8 OF HIS REBUTTAL TESTIMONY, MR. SCHEPERLE ADDRESSES2THE 4 CP ALLOCATION METHOD AND EXPRESSES CONCERNS ABOUT THE3FACT THAT IT WOULD ASSIGN NO COST TO OFF-PEAK CUSTOMERS SUCH4AS LIGHTING. DO YOU HAVE ANY COMMENTS ABOUT THIS?

5 A Yes. Although I have not proposed 4 CP as my primary method of allocation, it would 6 be my second choice to the A&E-4 NCP method that I did recommend. The concern 7 about the lighting class is the classic case of the tail wagging the dog. It is only the 8 lighting class that in the summer is essentially off-peak. And, the lighting class is a 9 very small portion of the total system (1.1% of the A&E-4 NCP), so its results should 10 not be allowed to drive the selection of allocation methods.

11 Furthermore, I would note that for purposes of allocating fixed generation 12 costs between Kansas and Missouri, the Commission Staff supports the 4 CP method 13 that the Commission has previously found appropriate for this purpose. That method 14 is more favorable to Missouri than energy-based methods (like BIP) because the 15 4 CP method does not allocate excessive fixed costs to high load factor loads, such 16 as the State of Missouri in comparison to the State of Kansas. It is interesting that the Staff finds a method such as 4 CP to be appropriate for jurisdictional allocation 17 18 purposes, but in the same case feels compelled to propose a radically different 19 method when it comes to allocating costs among retail customer classes.

20 Q WHAT DOES MR. SCHEPERLE SAY ABOUT THE ALLOCATION OF 21 OFF-SYSTEM SALES?

At page 9 of his rebuttal testimony, he takes issue with KCPL's allocation of off-system sales margin on the basis of steam fixed generation plant, and supports the allocation of off-system sales margins on the basis of energy usage, adjusted for losses to the generation level. He notes with approval that the Commission adopted
this method in KCPL Case No. ER-2006-0314 and in the recent Ameren Missouri
Case No. ER-2010-0036. Mr. Scheperle does not explain why this precedent is
important when it comes to the allocation of off-system sales but can be ignored
when it comes to the method for allocating generation fixed costs...such as 4 CP in
the case of previous KCPL studies, and A&E-4 NCP in the case of the prior Ameren
case.

8QON PAGE 17 OF HIS TESTIMONY, MR. SCHEPERLE, IN DISCUSSING YOUR9RATE DESIGN PROPOSAL, ASSERTS THAT YOU DO NOT STATE A10RATIONALE FOR YOUR PROPOSAL. IS HE CORRECT?

11 A No, he is not. He has completely overlooked or swept aside the extensive discussion 12 at pages 29 through 35 of my direct testimony in which I explain the basis for the rate 13 structure for the LGS and LPS classes, my analysis of the level of variable costs, and 14 the specific moderate intra-class adjustments which I have proposed.

15QAT PAGES 18 AND 19 OF HIS TESTIMONY, MR. SCHEPERLE ADDRESSES16YOUR RATE DESIGN AND THE INCREASES TO LPS CUSTOMERS UNDER IT17AS COMPARED TO KCPL'S PROPOSED RATES. DO YOU HAVE ANY18COMMENTS ABOUT HIS ANALYSIS?

A Yes. As I indicated earlier in this surrebuttal testimony, the analysis that Staff
 conducted in this regard contains numerous, and significant, errors. The differences
 in impact between my rates and the KCPL proposed rates he reports at pages 18 and
 19 are highly exaggerated. The differences are much more moderate.

1 Q HAVE YOU BEEN ABLE TO IDENTIFY AND CORRECT THOSE ERRORS AND

2 DISCUSS THEM WITH MR. SCHEPERLE?

3 A Yes. We have been able to do that, have shared the changes with Mr. Scheperle,
4 and it is my understanding that he agrees with our revised numbers.

5 Q BASED ON THE REVISED ANALYSIS, WHAT IS THE RANGE OF IMPACTS OF 6 YOUR LPS RATE DESIGN?

7 А Mr. Scheperle evaluated impacts on 86 Rate LP customers. The average overall 8 increase under KCPL's rate proposal is 13.7%. Under my rate design, 35 customers 9 would experience increases in the range of 12% to 13.7% (no customer would 10 experience an increase less than 12%). Forty-seven customers would experience 11 increases in the range of 13.7% to 16%, and four customers would experience 12 increases larger than 16%. Two of those would be at 16.2%, one is at 16.3% and the 13 other is at 16.8%. Overall, 33 customers would experience a lower rate under my 14 rate design, and 53 would experience a higher rate.

15 Q WHAT IS THE POTENTIAL FOR MIGRATION OF LPS CUSTOMERS TO THE LGS 16 RATE?

- A Comparing my LGS rate to my LPS rate, 28 LPS customers would be able to
 experience slightly lower rates by transferring to Rate LGS. The net revenue loss
 from that would be \$395,000 per year.
- 20 Comparing my LPS rate to my LGS rate with a 2.2% decrease applied to LGS 21 (which I recommended for interclass revenue allocation), 43 customers would see 22 slightly lower rates by switching to LGS. The revenue reduction associated with the 23 switch would be \$961,000.

1 Q WOULD YOU CONSIDER THESE REVENUE REDUCTIONS FROM RATE 2 SWITCHING TO BE SIGNIFICANT?

3 А No. The \$395,000 difference in revenues associated with my rate design is only 4 0.14% of the combined current LPS and LGS revenues. The \$961,000 reduction is 5 only 0.34% of the current combined LPS and LGS revenues. There is no guarantee 6 that all of these customers would switch rates, but if KCPL is concerned about these 7 relatively small amounts, I would have no objection to folding those adjustments into 8 the overall rate design so that the combined LPS and LGS rates with my 9 recommended adjustments would produce the targeted revenue after taking into 10 account these possible revenue losses.

11 Response to OPC

12 Q HAVE YOU REVIEWED THE RATE DESIGN REBUTTAL TESTIMONY OF OPC 13 WITNESS MEISENHEIMER?

A Yes. In her rebuttal testimony, she essentially disagrees with my application of the
 A&E-4 NCP study because I selected the non-coincident peaks ("NCP") from the four
 summer peak months that are most critical on the system.

17QMS. MEISENHEIMER SUGGESTS THAT THE HIGHEST FOUR PEAKS FROM18ANY MONTH SHOULD BE SELECTED. DO YOU AGREE?

A No. The A&E method does not generically specify which NCPs should be selected.
This is a judgment of the analyst and is based on the load pattern of the utility. If the
utility has fairly similar peaks during each month, then it would be appropriate to
select the highest NCPs regardless of the months in which they occurred. If a utility is
predominantly winter peaking, then selecting the NCPs from the winter peak months

would be appropriate. Similarly, as is the case here, with a summer peaking utility it
is appropriate to select the peaks from the summer peak season so that classes that
have their highest loads in off-peak periods, and therefore do not contribute to the
need to add new capacity, are not burdened as a result of those off-peak demands.

5 Q IF YOU WERE TO FOLLOW MS. MEISENHEIMER'S RECOMMENDATIONS WITH 6 RESPECT TO THE SELECTION OF NON-COINCIDENT PEAKS, HOW WOULD 7 THAT AFFECT THE ALLOCATION OF FIXED GENERATION COST TO THE 8 LARGE POWER CLASS?

9 A As shown on Schedule BAM RD REB-1, the allocation to the large power class would
10 be lower than under the A&E-4 NCP approach as I have implemented it.

11 Q MS. MEISENHEIMER COMPLAINS THAT YOUR CHOICE OF NCP RESULTS IN 12 AN ALLOCATION OF 51.71% TO THE RESIDENTIAL CLASS COMPARED TO

13 51.24% IF NCPS ARE SELECTED FROM ALL MONTHS. IN YOUR OPINION, IS

- 14 THIS A SIGNIFICANT DIFFERENCE IN THE ALLOCATION FACTOR?
- 15 A No.
- 16 Q DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?
- 17 A Yes, it does.

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Company Name: KCPL MO Case Description: 2010 KCPL Rate Case Case: ER-2010-0355

Response to Vuylsteke Diana Interrogatories – Set MIEC_20101129 Date of Response: 12/09/2010

Question No.: 2.1

Please identify all regulatory proceedings of which Mr. Normand is aware wherethe regulatory commission adopted the base-intermediate-peak method of costallocation that Mr. Normand has proposed in this case.

RESPONSE:

Mr. Normand does not keep or maintain a list of the adoption of the base, intermediate and peak allocation procedure in his associated regulatory proceedings. Mr. Normand is, however, well aware of its development and use as an appropriate and reasonable allocation method for production allocation.

Additionally, in the report and order issued on November 22, 2010 by the Kansas Corporation Commission regarding the recent KCP&L rate case (10-KCPE-415-RTS) the Commission expressed its support and adoption of the base, intermediate and peak allocation procedure.

Attachment: Q2.1 MO Verification.pdf