Exhibit No.: Witness: Type of Exhibit: Issue: Sponsoring Parties:

Maurice Brubaker Rebuttal Testimony Jurisdictional Allocations Praxair, Inc. and Missouri Industrial Energy Consumers ER-2006-0314

Case No.:

#### 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 Begin the Implementation of Its Regulatory Plan

Case No. ER-2006-0314

Rebuttal Testimony and Schedules of

Maurice Brubaker on Revenue Requirement Issues

On Behalf of

Praxair, Inc. and Missouri Industrial Energy Consumers

September 8, 2006



BRUBAKER & ASSOCIATES, INC. St. Louis, MO 63141-2000

Project 8544

#### 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 Begin the Implementation of Its Regulatory Plan

Case No. ER-2006-0314

STATE OF MISSOURI ) ) SS COUNTY OF ST. LOUIS )

#### 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 1215 Fern Ridge Parkway, Suite 208, St. Louis, Missouri 63141-2000. We have been retained by Praxair, Inc. and Missouri Industrial Energy Consumers in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony on revenue requirement issues which was prepared in written form for introduction into evidence in Missouri Public Service Commission Case No. ER-2006-0314.

3. I hereby swear and affirm that the testimony is true and correct and that it shows the matters and things it purports to show.

/Maukice Brubaker

Subscribed and sworn to before this 7<sup>th</sup> day of September 2006.

CAROL SCHULZ Notary Public - Notary Seal STATE OF MISSOURI St. Louis County My Commission Expires: Feb. 26, 2008

My Commission Expires February 26, 2008.

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

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Case No. ER-2006-0314

#### **Rebuttal Testimony of Maurice Brubaker**

#### 1 Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

- 2 A Maurice Brubaker. My business address is 1215 Fern Ridge Parkway, Suite 208,
- 3 St. Louis, Missouri 63141-2000.

#### 4 Q WHAT IS YOUR OCCUPATION?

- 5 A I am a consultant in the field of public utility regulation and president of Brubaker &
- 6 Associates, Inc., energy, economic and regulatory consultants.

#### 7 Q HAVE YOU PREVIOUSLY FILED REVENUE REQUIREMENT TESTIMONY IN THIS

#### 8 **PROCEEDING**?

- 9 A Yes. I filed revenue requirement testimony on August 8, 2006. (I also filed direct
- 10 testimony on cost of service, revenue allocation and rate design on August 22, 2006.)

#### 11 Q DO YOUR QUALIFICATIONS APPEAR IN YOUR PRIOR TESTIMONY?

A Yes. My qualifications appear as Appendix A to my direct testimony on revenue
 requirement issues.

#### 1 Q WHAT REVENUE REQUIREMENT ISSUES ARE YOU ADDRESSING IN THIS

#### 2 **REBUTTAL TESTIMONY?**

- 3 A I address two methods utilized by KCPL in its jurisdictional study to allocate costs and
- 4 revenues among the Missouri retail jurisdiction, the Kansas retail jurisdiction and the
- 5 FERC jurisdiction.

#### 6 Q DOES THE FACT THAT YOU ARE NOT ADDRESSING ANY OTHER REVENUE

#### 7 REQUIREMENT ISSUE CONSTITUTE AN ENDORSEMENT OF ANY PARTICULAR

#### 8 POSITION ON THOSE MATTERS NOT ADDRESSED?

9 A No.

#### 10 Q PLEASE SUMMARIZE YOUR REBUTTAL TESTIMONY.

- 11 A My rebuttal testimony may be summarized as follows:
- 12 1. KCPL's demand costs allocation methodology applied to generation and 13 transmission does not give appropriate recognition to the summer peaking 14 characteristics of the system. The result is to over-allocate costs to the Missouri 15 jurisdiction. Instead of KCPL's 12 monthly coincident peak allocation method, the 16 four coincident peak allocation method used by Commission Staff witnesses is 17 appropriate.
- KCPL's allocation methodology for imputed profits from off-system sales is not supported. The energy allocation method employed by Commission Staff witnesses is more appropriate and should be adopted.

#### 21 Q WHAT METHODOLOGY FOR ALLOCATING DEMAND-RELATED GENERATION

#### 22 AND TRANSMISSION COSTS AMONG JURISDICTIONS DID KCPL EMPLOY?

- 23 A As discussed in the direct testimony of KCPL witness Don Frerking, KCPL used the
- 24 average contributions of the Missouri jurisdiction to KCPL's 12 monthly system peaks.
- 25 This methodology gives weighting to demands in every month of the year, despite the
- 26 fact that demands in many months of the year are significantly below the peak

summer levels. This approach allocates more costs than appropriate to the Missouri
 retail jurisdiction, which has an above-average load factor.

Schedules 1 and 2 attached to my direct testimony on cost of service, revenue
allocation and rate design show the total company and also the Missouri jurisdictional
monthly peaks for the 12 month period ended September 30, 2005 that was used for
class cost of service purposes.

7 Attached hereto as Schedules 1 and 2 to this rebuttal testimony is a similar 8 presentation which shows the peak loads of KCPL in total, and also the loads of the 9 Missouri jurisdiction as those loads were used in the June 2006 updated revenue 10 requirement studies. As expected, the pattern is the same, and summer peak loads 11 predominate.

# 12 Q PLEASE EXPLAIN THE RELEVANCE OF KCPL'S MONTHLY LOAD CURVE AS IT 13 APPLIES TO THE CONSTRUCTION OF PRODUCTION AND TRANSMISSION 14 FACILITIES.

15 А As explained in my previously filed rate design testimony, the electric industry is 16 unique in that electricity cannot be stored and must be produced as it is demanded by 17 Because of the inability to store electricity, production and the customer. 18 transmission plant must be sized to meet the maximum demand imposed on these 19 facilities. Given this basic concept, it is clear that KCPL's production and 20 transmission facilities have been constructed to meet its predominantly summer peak.

# 1QTHIS BEING THE CASE, WHAT ALLOCATION METHODOLOGY SHOULD BE2APPLIED FOR DEMAND-RELATED GENERATION AND TRANSMISSION3COSTS?

A As pointed out in my rate design testimony, the specific allocation method should be
consistent with the principle of cost-causation; that is, the allocation should reflect the
contribution of each customer class (or in this case – each state) to the demands that
caused the utility to incur capacity costs. Therefore, either a form of coincident peak
allocation which would utilize one or more significant demands from the summer
period, or an average and excess allocation methodology which would utilize class
peaks from the summer period would be appropriate.

11 In this context, the Commission Staff accounting witnesses have utilized a 12 four-summer coincident peak allocation methodology. For purposes of the 13 jurisdictional allocation study, I support Staff's allocation as I believe it is generally 14 consistent with cost of service principles.

#### 15 Q DID KCPL WITNESSES EXPLAIN WHY THEY CHOSE A 12 COINCIDENT PEAK

#### 16 JURISDICTIONAL ALLOCATION METHODOLOGY?

17 A No. None of KCPL's witnesses provided any rationale for this allocation. 18 Nevertheless, as explained above, it is apparent that KCPL's production and 19 transmission facilities are constructed to meet the summer peaks experienced by the 20 company. KCPL's use of a 12 CP demand allocator inappropriately shifts demand 21 costs from the low load factor Kansas jurisdiction to the higher load factor Missouri 22 jurisdiction.

## 1 Q HOW DID KCPL ALLOCATE THE MARGINS FROM OFF-SYSTEM SALES 2 AMONG JURISDICTIONS?

A KCPL allocates what it has identified as profits from off-system sales using a rather
 novel methodology which attempts to allocate more profits to the low load factor
 Kansas jurisdiction than to the higher load factor Missouri jurisdiction. The theory
 expressed is that the low load factor jurisdiction has a load pattern which frees up
 more capacity at certain times to facilitate off-system sales, than is true for the
 Missouri jurisdiction, which has a higher load factor.

#### 9 Q DO YOU AGREE WITH KCPL'S ALLOCATION METHODOLOGY?

10 А No. This methodology does not give any consideration at all to sales made from the 11 reserve capacity that is paid for by all customers and carried for the benefit of all 12 customers in proportion to customer loads, rather than in proportion to some 13 ill-defined notion of "unused energy." It also does not recognize scheduled 14 maintenance requirements or forced outage events, nor does it recognize specific 15 class load patterns. It is a rather simplistic, broad brush and unique allocation 16 formula. More typically, all of the revenues generated from off-system sales, 17 including any imputed profit margin, would be allocated to customer groups or 18 jurisdictions on the basis of energy. This is the methodology which Commission Staff 19 accounting witnesses have employed for purposes of their jurisdictional allocation 20 and I believe it is appropriate.

# 1QIN THE EVENT THAT KCPL'S ALLOCATION METHODOLOGY IS USED, DO YOU2HAVE ANY SUGGESTIONS IN ORDER TO ACHIEVE MORE EQUITABLE3TREATMENT OF ALL CUSTOMERS?

4 А Yes. In allocating off-system sales margins, KCPL's method places heavy reliance 5 on the relative load factors of Missouri versus Kansas and allocates less of the 6 margins to Missouri on the theory that Missouri customers are using the generation 7 plant more hours, making it less available for off-systems sales. I noted previously 8 some of the problems with this approach. However, if this approach is utilized, the 9 importance of the relative load factors should be recognized in other aspects of 10 KCPL's cost of service as well. To achieve symmetry, Missouri retail customers 11 should be allocated a correspondingly larger share of energy from lower running cost 12 generation that KCPL's allocation logic says they are using more intensively.

### 13 Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY ON REVENUE 14 REQUIREMENTS?

15 A Yes, it does.

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Analysis of KCPL's Monthly Peak Demands as a Percent of the Annual System Peak (Weather Normalized and with Losses) June 2006 Updated Data



Analysis of Missouri's Monthly Peak Demands as a Percent of the Annual System Peak (Weather Normalized and with Losses) June 2006 Updated Data



#### Analysis of KCPL's Monthly Peak Demands as a Percent of the Annual System Peak (Weather Normalized and with Losses) June 2006 Updated Data

<u>Line</u>	<u>Description</u>	Total Company <u>MW</u> (1)	Percent (2)
1	January	2,436	68
2	February	2,371	66
3	March	2,092	59
4	April	1,944	54
5	May	2,722	76
6	June	3,356	94
7	July	3,575	100
8	August	3,433	96
9	September	2,883	81
10	October	2,137	60
11	November	2,308	65
12	December	2,568	72

Source: "Unused Energy Allocator," Demand Allocator, Page 1 of 1

#### Analysis of Missouri's Monthly Peak Demands as a Percent of the Annual System Peak (Weather Normalized and with Losses) June 2006 Updated Data

<u>Line</u>	<u>Description</u>	Missouri Jurisdiction <u>MW</u> (1)	Percent (2)
1	January	1,299	68
2	February	1,270	67
3	March	1,142	60
4	April	1,078	57
5	May	1,478	78
6	June	1,805	95
7	July	1,903	100
8	August	1,815	95
9	September	1,540	81
10	October	1,186	62
11	November	1,239	65
12	December	1,373	72

Source: "Unused Energy Allocator," Demand Allocator, Page 1 of 1