Exhibit No.: 106
Witness: Maurice Brubaker
Type of Exhibit: Rebuttal Testimony
Sponsoring Party: Explorer Pipeline Company and Praxair, Inc.
Issue: Cost of Service and Rate Design
Case No.: ER-2004-0570

Before the
Missouri Public Service Commission

In the Matter of the Tariff Filing of The Empire District Electric Company to Implement a General Rate Increase for Retail Electric Service to Customers in its Missouri Service Area.	)))))	**Case No. ER-2004-0570**

Rebuttal Testimony of

Maurice Brubaker

On Behalf of

Explorer Pipeline Company and Praxair, Inc.

November 4, 2004
Project 8228

BRUBAKER & ASSOCIATES, INC.
ST. LOUIS, MO 63141-2000

BEFORE THE

PUBLIC SERVICE COMMISSION OF MISSOURI

In the Matter of the Tariff Filing of The Empire District Electric Company to Implement a General Rate Increase for Retail Electric Service Provided to Customers in its Missouri Service Area.	)))))	Case No. ER-2004-0570

Affidavit of Maurice Brubaker

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

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, MO 63141-2000. We have been retained by Explorer Pipeline Company and Praxair, Inc. in this proceeding on their behalf.

2. Attached hereto and made a part hereof for all purposes is my rebuttal testimony addressing cost of service and rate design which was prepared in written form for introduction into evidence in the ER-2004-0570 Proceeding.

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

M E Brubaker

Maurice Brubaker

Subscribed and sworn before this 25th day of October, 2004.

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

Carol Schulz

Notary Public

My Commission expires on February 26, 2008.

Before the
Missouri Public Service Commission

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Rebuttal Testimony of Maurice Brubaker

Q PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.

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

Q ARE YOU THE SAME MAURICE BRUBAKER WHO FILED DIRECT TESTIMONY IN THE REVENUE REQUIREMENT, COST OF SERVICE AND RATE DESIGN PHASES OF THIS PROCEEDING?

A Yes, I am.

Q WHAT IS THE PURPOSE OF YOUR REBUTTAL TESTIMONY?

A I will respond to the cost of service and revenue allocation proposals of the Office of Public Counsel (OPC) and Staff of the Missouri Public Service Commission (Staff), and also to certain rate design recommendations – namely Staff's recommendation with respect to the form and structure of the provision which collects refundable fuel and purchased power costs (sometimes referred to as an IEC).

Q PLEASE SUMMARIZE YOUR MAIN CONCLUSIONS AND RECOMMENDATIONS.

A My conclusions and recommendations contained in this rebuttal testimony may be summarized as follows:

1. The allocation methodology which both OPC and Staff have used for generation and transmission fixed costs should be rejected. The methodology is not supported, it is not an accepted methodology and is heavily biased against high load factor customers, especially Large Power customers and Praxair.

2. The methodology supported by OPC and Staff is materially different from the traditional methodologies that are described in the National Association of Regulatory Utility Commissioners (NARUC) Cost Allocation Manual, and widely employed throughout the industry. In fact, I have never seen the methodology supported by OPC and Staff employed any place other than here in Missouri.

3. Staff and OPC both use techniques for the allocation of distribution facilities that are not explained, and which disproportionately allocate these costs to Large Power customers.

4. The Staff and OPC allocations of administrative and general expenses also deviate materially from accepted allocation methodologies and disproportionately allocate costs to the Large Power customers and Praxair.

5. OPC's cost studies are further flawed in that OPC allocates costs to Praxair as if it were a firm customer, but uses Praxair's actual payments to Empire for interruptible power. This is internally inconsistent and wrong.

6. OPC erroneously failed to recognize differences in demand and energy losses among customer classes in constructing its allocation factors. The result is to allocate too much cost to the Large Power customers and to Praxair who are served at primary and transmission voltage levels.

7. The cost of service studies presented by OPC and Staff should not be given any weight.

8. Mr. Watkins' recommended rate design for a refundable interim energy charge (IEC), if one is implemented, is for an equal ¢/kWh charge to all customer classes. This is inappropriate for several reasons and should be rejected. Instead, any IEC should be applied as an equal percentage across all classes.

9. The first problem with Mr. Watkins' approach is that the increment he uses is the difference between what Staff would include in base rates on a pro forma basis and what Staff would allow as total fuel and purchased power (part of which is in an IEC). This is not the same as the difference between what is currently included in rates and Staff's total amount including refundable elements. The reason it is different is that the current rates were the product of a "black box" settlement in Empire's last rate case, and there was never any identification of

the amount of fuel and purchased power included in the tariffs which were adopted, and which are the current tariffs in effect today.

10. Mr. Watkins' assumption that fuel and purchased power are a direct function of kilowatthour sales is also incorrect. First, because of differences in losses among customer classes, the fuel and purchased power costs per kilowatthour sold is not the same for all classes. It is lower for customers served at transmission and primary service levels than for customers served at the secondary voltage levels.

11. It is also the case that load patterns of customer classes are different, and fuel costs vary as a function of time pattern of use. Customers who use an above average share of their energy during off-peak hours and during off-peak months (Praxair and the Large Power customers, for example) would actually have a lower average cost than would customers who are disproportionately using energy during peak times of the day and during peak months, and disproportionately less in other periods.

RESPONSE TO COST OF SERVICE STUDY SPONSORED BY OPC

Q WHAT METHOD DOES OPC'S WITNESS USE FOR THE ALLOCATION OF GENERATION AND TRANSMISSION FIXED COSTS?

A According to the September 27, 2004 testimony of OPC witness Barbara Meisenheimer (Lines 12-14 on Page 5), the OPC used what Ms. Meisenheimer describes as a "12-month non-coincident peak (NCP) average and peak" allocation method.

Q WHAT IS THE BASIS FOR USE OF THIS METHOD?

A It is very difficult to tell from OPC's testimony and workpapers. All Ms. Meisenheimer says is that she believes this method would mimic the results of an undefined "time-of-use" method. This is the long and short of OPC's support for its allocation methodology. No other part of Ms. Meisenheimer's testimony, none of her work-papers, and no part of the testimony of any other OPC witness, addresses the basis for selecting this allocation method.

Q DOES THIS METHOD MIRROR HOW UTILITIES INCUR COSTS?

A No. To answer this question fully, it is first necessary to understand the method which OPC used (see Exhibit BAM RD DIR-1). There are two components to OPC's customer class allocator. The first is customer class annual energy use. This is simply total kilowatthours utilized by each customer class over the year. No distinction is made with respect to either the month in which kilowatthours are used, or the time of day when they are used. Annual customer class energy consumption receives a weighting of over 50% (56%) in OPC's allocator.

The second portion of the allocator (which has a weight of 44%) is based on a weighting of the monthly non-coincident demands of each customer class. The non-coincident peak demands are the highest demand of each customer class in each month. The time of occurrence of the peaks during each month is ignored for purposes of this portion of the allocation factor. Thus, a class demand occurring at 3 AM has the same weighting in the allocation as a class demand occurring coincident with the afternoon system peak demand.

Continuing with this second portion of the allocation factor, the monthly non-coincident class demand percentage (each class's non-coincident peak is divided by the sum of the non-coincident peaks of all classes in the same month to determine the percentage that each class is to the total), is then weighted by another percentage which is derived from an analysis of the level of utility system monthly peak demands. The result is that the two summer peak months, which have loads far in excess of loads in other months, receive a weighting of less than 25% under Public Counsel's method. This means that the 10 other months receive a weighting of more than 75%, even though the demands in these other 10 months are appreciably less than the annual system peak.

Considering the combined effect of the heavy weighting given to energy, and the heavy weighting given to loads in non-peak months, less than 15% of the value of the allocator is attributable to demands occurring in the two summer peak months. The Empire system has a predominant summer peaking load characteristic, with a secondary peak in the winter. Allocation methods such as OPC has created, that give significant weight to loads occurring in off-peak hours and in off-peak months, have no claim to accuracy or the representation of cost causation because the summer peaks drive the need for capacity additions. Accordingly, OPC's study should be rejected.

Q IS THE METHOD USED BY OPC COMMON IN THE INDUSTRY?

A No. In fact, I have not seen it used except by OPC and Staff witnesses in Missouri.

Q HOW DOES THE "AVERAGE AND PEAK" METHOD ADVOCATED BY PUBLIC COUNSEL DIFFER FROM THE "AVERAGE AND EXCESS" METHOD WHICH YOU HAVE USED IN YOUR TESTIMONY?

A The difference is significant. The average and excess method considers the allocation in two steps as well, and the first step is average demand or energy consumption. **However, the second step is not total peak demand, but is the difference between average demand and customer class peak demand. This gives appropriate weighting both to energy consumption and to peak loads.** The average and excess method also is widely accepted in the industry. In fact, the average and excess demand allocation method and the coincident peak allocation method are the two most widely used and accepted allocation methods in the electric utility industry.

Continuing with the contrast between average and excess and OPC's average and peak allocator, the average and peak allocator uses both average demand and customer maximum demand – not the difference between average demand and maximum demand. As a result, OPC's average and peak method double-counts average demand because average demand is a component of peak demand. Thus, average demand is counted twice – once in the first step of the development of the factor which uses average demand (i.e., kilowatthours), then again in the second step when use is made of the **total** peak demand, rather than the difference between peak demand and average demand. This double-counting of average demand is wrong and substantially skews the results against high load factor customers – as is evident from the results produced by OPC's study.

Q CAN YOU PROVIDE AN EXAMPLE THAT SHOWS THE DOUBLE-COUNTING AND CONTRASTS THE METHODS?

A Yes. Please refer to Schedule 1 attached to this rebuttal testimony. This example shows three customer classes and the total utility system. (For purposes of illustrating concepts the numbers have purposely been kept small, and the example simple.)

In this example there are three customer classes each of which have the same peak demand. However, because they do not use the same amount of energy they have different load factors. Class A has a 33% load factor, calculated by dividing its average demand of 2 kW by its peak demand of 6 kW. The load factor for Class B is 50% and for Class C is 83%.

The system in total has a peak demand that is 17 kW, which is less than the sum of the individual class peaks because not all classes peak at the same time. The

system has an overall load factor of 59%. Note that the average demand of each class is a component of the peak demand. The peak demand is equal to the average demand plus the excess of the peak demand above the average demand. The same applies for the system in total.

Q CAN YOU PLEASE CONTINUE WITH YOUR EXAMPLE?

A Schedule 2 presents the numerical values associated with Schedule 1 and calculates various percentages that are used in allocation factor calculations. Note from column 3 that the average demand is simply the annual energy consumption divided by 8,760 hours per year. The class excess demand (column 7) is the difference between the class peak demand shown in column 5 and the class average demand shown in column 3.

Q WHAT IS SHOWN ON SCHEDULE 3?

A Schedule 3 presents the derivation of the allocation factors under the average and excess methodology and under the non-coincident peak, average and peak methodology.

To develop the average and excess factor, the average demand percentage for each class is multiplied by the system load factor of 59%. The class excess demand factor is then multiplied times one minus the system load factor. The two are added together to produce the average and excess demand allocation factor shown in column 3.

Q HOW DOES THIS DIFFER FROM THE NON-COINCIDENT PEAK, AVERAGE AND PEAK ALLOCATION FACTOR?

A Note from column 4 that the first step is the same – the average demand factor is multiplied times the system load factor. However, in column 5 the second component is determined by multiplying the **total** class peak allocation factor (from column 6 of Schedule 2) times one minus the system load factor. As illustrated graphically on Schedule 1, since the average component is a part of the peak demand component, it gets a double weighting in this non-traditional cost allocation methodology. The result is as I described above: namely, the high load factor customers (Class C) are allocated significantly more responsibility for system costs than they should be.

Q HOW DID OPC TREAT THE INTERRUPTIBLE LOAD OF PRAXAIR IN ITS COST OF SERVICE STUDY?

A Ms. Meisenheimer allocated costs to Praxair using its total demand, composed of both its firm load and its interruptible load. Furthermore, the revenues which she used for Praxair in the cost of service study were the revenues collected from Praxair, as reduced by the interruptible credit provided to Praxair. If Ms. Meisenheimer wants to treat Praxair's load as firm, then she should use Praxair's total revenue before subtracting the interruptible credit (which is what Empire did). Or, if she wanted to use Praxair's revenues net of the interruptible credit, then she should have allocated costs based only on Praxair's firm demand. Ms. Meisenheimer's approach is internally inconsistent, produces distorted results, and must be rejected.

Q DO YOU HAVE ANY OTHER COMMENTS WITH RESPECT TO OPC'S CLASS COST OF SERVICE STUDY?

A Yes. It is well known and universally accepted that the losses between generation and delivery at the meter vary in accordance with voltage level. On the Empire system, losses range from approximately 2.3% when a customer takes service at the transmission level to 5.4% for delivery at the primary distribution level, and 7.5% for delivery at the secondary voltage level. A few large industrial customers (for example, Praxair and two of the Explorer delivery points) take service at the transmission voltage level. The Large Power customers take service at the primary voltage level. Residential customers and most of the commercial and small industrial customers take service at the secondary voltage level.

OPC's cost of service studies completely ignore adjustments required to reflect these differences in losses and simplistically and inappropriately use kilowatthour sales at the meter.

OPC uses kilowatthour sales at the meter, without adjusting for losses, to allocate both the variable component of fuel and purchased power and maintenance, and in the energy component of the production capacity and transmission demand allocation factors.

Q WHAT IS THE IMPACT OF THIS ERROR?

A The impact of ignoring this universally accepted practice of adjusting for losses so as to recognize delivery at various voltage levels results in overallocation of costs to transmission level customers and the Large Power customers.

Q DO YOU HAVE ANY OTHER COMMENTS WITH RESPECT TO OPC'S FILINGS?

A Yes. In allocating most of the elements of the distribution system OPC uses a "split" between demand-related and customer-related components that is significantly different from what has been used by Empire. Other than observing that these "splits" have been used in the past, Ms. Meisenheimer provides absolutely no support or justification for utilizing these "splits" as opposed to those contained in Empire's filed class cost of service study.

Q WHAT IS THE IMPACT OF THE USE OF THIS ALTERNATIVE "SPLIT" BETWEEN DEMAND-RELATED AND CUSTOMER-RELATED COMPONENTS?

A The end result is to allocate excess costs to virtually all customer classes except the Residential – which is the primary beneficiary of these alternative allocations.

Q DOES THE OPC STUDY DEPART FROM TRADITIONAL STUDIES IN ANY OTHER SIGNIFICANT WAYS?

A Without trying to be exhaustive, the OPC's allocations of administrative and general expenses, and intangible and general plant in-service also depart significantly from the traditional and accepted methodologies that Empire has employed. The end result is to allocate to Praxair 70% more A & G expense than in the Empire study, and for the Large Power class, almost 33% more than allocated by Empire.

Q DID OPC USE THE SAME METHODOLOGY AND MAKE THE SAME MISTAKES IN THE OCTOBER 4, 2004 FILING?

A Yes, so my comments apply equally to that offering.

RESPONSE TO COST OF SERVICE STUDY SPONSORED BY THE STAFF OF THE MISSOURI PSC

Q DID STAFF OFFER A CLASS COST OF SERVICE STUDY IN THIS PROCEEDING?

A Yes. Staff witness Hong Hu has included a class cost of service study with her September 27, 2004 testimony.

Q WHAT METHOD DOES STAFF PROPOSE FOR THE ALLOCATION OF GENERATION AND TRANSMISSION FIXED COSTS?

A Ms. Hu's description of the method which she used is identical to that used by OPC witness Meisenheimer. A review of supporting detail for Ms. Hu's study confirm that the methodology is very similar, and the results differ only slightly. Accordingly, the response I have given above to the OPC cost study applies equally to the class cost of service study submitted by the Staff.

Q DID STAFF SUBMIT AN ADDITIONAL COST OF SERVICE ANALYSIS?

A Yes. On October 4, 2004, Ms. Hu submitted additional testimony containing another cost of service study – purportedly based on a seasonal allocation. A review of the workpapers for this study reveals that Staff, in this new study, has adopted the allocation methodology used by OPC witness Meisenheimer in her testimony. Accordingly, the same observations and criticisms that I have with respect to Ms. Meisenheimer's testimony apply with equal force to the October 4, 2004 testimony submitted by Staff.

Q DO YOU HAVE THE SAME CONCERNS ABOUT THIS STUDY THAT YOU DID WITH THE STUDY ATTACHED TO HER DIRECT TESTIMONY?

A Yes, I do. In fact, the results are very similar insofar as the allocation to customer classes is concerned. What appears to be different is an attempt to apportion costs by season, as well as by customer class.

The explanation for how energy-related costs were allocated to months appears to be that the annual energy-related costs were allocated to months based upon monthly kilowatthour sales. The end result of this allocation would be that the average cost of energy would be the same in each month. This is obviously not the case since generation costs and purchased power costs are much higher in the summer than during other months of the year. For this reason alone, if for no other, the Staff's seasonal allocation of costs is not a reasonable allocation.

Q DO YOU HAVE ANY OTHER COMMENTS WITH RESPECT TO STAFF'S COST OF SERVICE STUDIES?

A Yes. Staff's allocation of distribution plant is similar in many respects to that employed by OPC. Staff allocated to the Large Power class 40% more distribution plant, and to Praxair (which is served at the transmission level) about 50% more. (The only distribution-related equipment which should be allocated to Praxair is the step-down substation for which it pays a facilities charge.)

Staff's allocation of administrative and general expense is also skewed against Praxair and the Large Power class, although not quite to the same extent as in OPC's studies.

REVENUE ALLOCATION ISSUES

Q WHAT RECOMMENDATION DOES OPC MAKE WITH RESPECT TO REVENUE ALLOCATION?

A OPC recommends making some shift in inter-class revenue responsibility in accordance with the results of its class cost of service studies.

Q DO YOU AGREE WITH OPC'S RECOMMENDATIONS?

A No. As noted above, OPC's class cost of service study does not appropriately reflect cost causation and is fatally flawed. No revenue allocation decisions should be made on the basis of the OPC study.

Q WHAT IS THE RECOMMENDATION OF THE COMMISSION STAFF?

A In his September 27, 2004 testimony, Staff witness Watkins did not make any recommendation with respect to shifting revenue requirements among customer classes, or in allocating any amount of increase or decrease that the Commission might award. Instead, he said Staff would file its final recommendation on October 4, 2004 (see Pages 3 and 4 of the September 27, 2004 direct testimony of James Watkins).

Q IN HIS OCTOBER 4 TESTIMONY, DID MR. WATKINS MAKE ANY FURTHER RECOMMENDATION WITH RESPECT TO INTERCLASS ALLOCATIONS?

A No, he did not. He did offer testimony concerning a proposed design for a temporary recovery mechanism for fuel and variable purchased power costs (IEC), which I will address below. However, he did not make any interclass revenue allocation recommendations, so I assume that Staff is implicitly accepting and endorsing

Empire's proposed across-the-board increase methodology, at least for any change in revenues other than revenues which might be collected through an IEC.

RESPONSE TO STAFF RECOMMENDATION FOR THE DESIGN OF AN IEC

Q WHAT DOES STAFF RECOMMEND AS A RATE DESIGN FOR AN IEC TO RECOVER REFUNDABLE FUEL AND VARIABLE PURCHASED POWER COSTS?

A Mr. Watkins, in his October 4, 2004, rate design testimony recommends that it be recovered from all customers uniformly as a rate of 0.5¢ per kilowatthour. His justification is that these costs are typically allocated on a kilowatthour basis and therefore this is a reasonable and straightforward way to collect these costs.

Q DO YOU AGREE OR DISAGREE WITH MR. WATKINS?

A I disagree for several reasons.

Q WHAT IS THE FIRST REASON THAT YOU DISAGREE WITH MR. WATKINS?

A Essentially, the IEC amount in question is an increment above what is assumed to be included prospectively in base rates. But, the increment would be applied to current rates (as adjusted for any increase or decrease), not to an allocated set of revenue requirements that includes a defined amount of fuel and purchased power costs.

To elaborate, current rates are not the same as the allocated revenue requirement based on whatever amount Staff may assume to be included in base rates on a prospective basis. The existing rates were the product of a negotiated settlement of Case No. ER-2002-424 that was approved by the Commission. There was no explicit identification of fuel or purchased power cost included in those rates.

Thus, while it is possible in this case to define a total amount of fuel and variable purchased power costs that could be collected, the increment over and above existing base rates is not determinable. Thus, to assume that the increment in question is the amount in excess of what is already being recovered in rates is just wrong.

Q WHAT IS THE SECOND REASON YOU DISAGREE WITH MR. WATKINS?

A The second reason I disagree is that even if I had no other disagreement, his statement that these costs vary directly with usage (sales), as stated on Page 2 of his testimony at Line 9, is not correct. The fuel and variable purchased power cost, to the extent that it is directly related to energy requirements, is a function of kilowatthours adjusted for losses to the generation level, and not to kilowatthours of sales at the customer level.

As I noted previously (in discussing OPC's class cost of service study), this is an important distinction because losses are not the same for all customers or customer classes. On the Empire system, losses range from approximately 2.3% in the case of customers who take service at the transmission level (such as Praxair and two of the three Explorer delivery points), to 5.4% at the primary level, and up to 7.5% for customers who take delivery at the secondary voltage level (such as residential, commercial and the smaller industrial customers). Thus, to collect these costs as a uniform amount per kilowatthour sold is not accurate. It would overcharge higher voltage level customers.

Q WHAT IS THE THIRD REASON THAT YOU DISAGREE WITH MR. WATKINS?

A The third reason that I disagree is that energy costs are not uniform by hour. The average cost of kilowatthours produced during the summer period is higher than the average cost of kilowatthours produced in winter months, and spring and fall months. The average cost of kilowatthours produced during high load on-peak hours is greater than the cost of kilowatthours produced during nighttime and weekend hours when demands are lower.

This is a very important distinction because the loads of customer classes vary appreciably from period to period – and not in the same fashion for all classes. Higher load factor customers who have a more steady demand requirement – especially Praxair with a load factor of over 90% (as compared to a residential class load factor of about 40%) use a larger proportion of their energy requirements during times when the cost to produce a kilowatthour is less than the average cost. Thus, the average cost of fuel and variable purchased power, when considered on the basis of when energy is used, will be less for higher load factor than for the lower load factor customers. For this additional reason it also is not appropriate to collect these costs as a uniform amount per kilowatthour of sales.

Q WHAT IS YOUR RECOMMENDATION FOR THE METHOD OF COLLECTING ANY IEC OR SIMILAR TEMPORARY REFUNDABLE SURCHARGE?

A I believe that the recommendation contained in my direct testimony – which was to allocate such costs across all customer classes as an equal percentage applied to existing total revenues and then to derive an individualized per kilowatthour factor for each rate schedule, is the most logical under the circumstances. It recognizes that the amount of fuel and purchased power cost recovery in current rates is not defined,

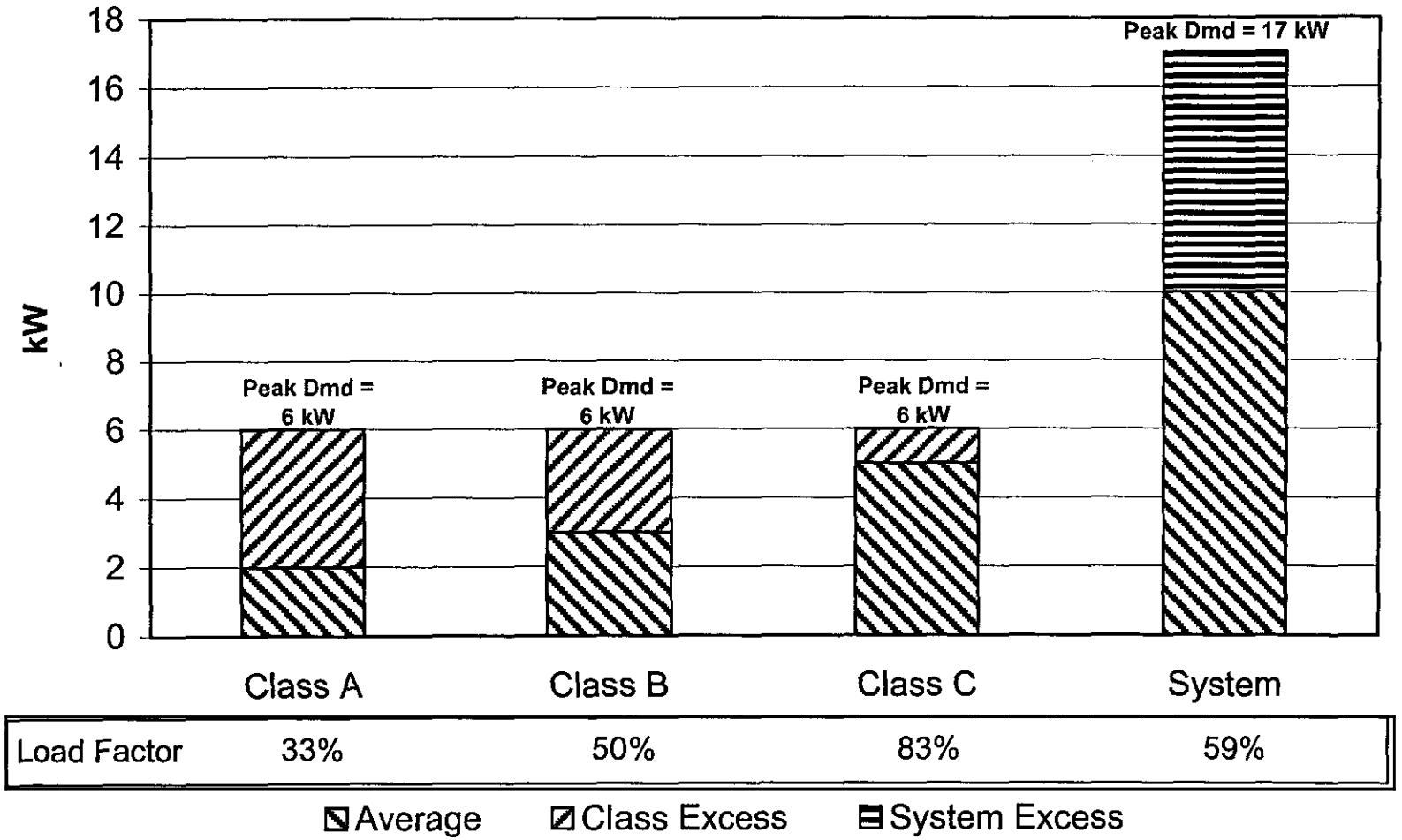
it is consistent with the results of Empire's traditional class cost of service study which shows that the Large Power and Special Contract (Praxair) classes are producing an above-average rate of return even at the level of fuel and purchased power cost recovery sought by Empire, and has the added benefit of providing some variation in the per kilowatthour amounts collected by customer class that reflects, at least to some extent, the differences in costs that are driven by differences in voltage level, load factor and load pattern.

Q DOES THIS CONCLUDE YOUR REBUTTAL TESTIMONY?

A Yes, it does

MEB:cs/8228/50942

Illustration of Class and System Average, Peak and Excess Demands



Rebuttal
Schedule 1

THE EMPIRE DISTRICT ELECTRIC COMPANY

Class Characteristics

Line	Rate Class	Load Factor (1)	Annual Energy kWh (2)	Average Demand * kW (3)	Percent of Average Demand (4)	Class Peak Demand kW (5)	Percent of Class Peak Demand (6)	Class Excess Demand kW (7)	Percent of Class Excess Demand (8)
1	Class A	33.0%	17,200	2	20.0%	6	33.3%	4	50.0%
2	Class B	50.0%	26,280	3	30.0%	6	33.3%	3	37.5%
3	Class C	83.0%	43,800	5	50.0%	6	33.3%	1	12.5%
4	Total		87,280	10	100.0%	18	100.0%	8	100.0%

* Column (2) ÷ 8,760 hours in a year

Rebuttal
Schedule 2

THE EMPIRE DISTRICT ELECTRIC COMPANY

Illustration of Allocation Factors

Line	Rate Class	Average and Excess Method: Average Demand Factor Times System Load Factor (59%) (1)	Average and Excess Method: Class Excess Demand Factor Times 1 - Load Factor (41%) (2)	Average and Excess Method: A&E Allocation Factor (3)	NonCoincident Peak, Average and Peak Method: Average Demand Factor Times System Load Factor (59%) (4)	NonCoincident Peak, Average and Peak Method: Peak Demand Factor Times 1 - Load Factor (41%) (5)	NonCoincident Peak, Average and Peak Method: NCP A&P Allocation Factor (6)
1	Class A	11.8%	20.5%	**32.3%**	11.8%	13.7%	**25.5%**
2	Class B	17.7%	15.4%	**33.1%**	17.7%	13.7%	**31.4%**
3	Class C	29.5%	5.1%	**34.6%**	29.5%	13.7%	**43.2%**
4	Total	59.0%	41.0%	**100.0%**	59.0%	41.0%	**100.0%**

Rebuttal
Schedule 3