BEFORE THE
PUBLIC SERVICE COMMISSION OF UTAH

In the Matter of the Application of PACIFICORP for Approval of its Proposed Electric Service Schedules and Electric Service Regulations	**Docket No. 04-035-42**

Direct Testimony of

Maurice Brubaker

Concerning Cost of Service and Revenue Allocation

On behalf of

Utah Industrial Energy Consumers

Project 8279
January 7, 2005

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

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Direct Testimony of Maurice Brubaker Concerning Cost of Service, Revenue Allocation and Rate Design

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 WHAT IS YOUR OCCUPATION?

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

Q ARE YOU THE SAME MAURICE BRUBAKER WHO FILED TESTIMONY IN THE REVENUE REQUIREMENT PHASE OF THIS PROCEEDING?

A Yes, I am. Appendix A to my revenue requirement testimony contained my qualifications.

Q ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?

A I am appearing on behalf of the Utah Industrial Energy Consumers (UIEC). UIEC member companies purchase electricity from PacifiCorp.

Q WHAT IS THE PURPOSE OF THE TESTIMONY YOU ARE SUBMITTING AT THIS TIME?

A This testimony will address the issues of class cost of service and revenue allocation .

Q PLEASE SUMMARIZE YOUR TESTIMONY.

A My primary findings and recommendations may be summarized as follows:

1. In this phase of the proceeding PacifiCorp has presented class cost of service studies based on the Rolled-in method and the Multi-State Protocol (MSP) method. The MSP method is largely a product of compromise among jurisdictions and has as its primary purpose to provide PacifiCorp with a better opportunity to collect its prudently incurred costs.

2. As the Commission acknowledged in its December 14, 2004 Order in Docket No. 02-035-04, the MSP addresses only inter-jurisdictional cost allocation, and not class cost of service.

3. Given the compromise nature of the MSP it is not a proper cost-based methodology.

4. The Rolled-in method should be the predominant method used to appraise the profitability of individual customer classes and to determine how to spread any change in revenues among rate schedules.

5. Over the last decade the PacifiCorp system has transitioned from slightly winter peaking to predominately summer peaking.

6. The Utah jurisdictional peaks not only continue to be experienced during the summer, but over the last decade the summer demands have grown by over 80%.

7. The increased importance of peak loads means that more pricing emphasis must be placed on peak loads. In order to accomplish this in a consistent fashion, additional costing emphasis must also be placed on the peak loads.

8. In order to recognize the increased importance of peak loads in costing, two changes are necessary:

   (1) The 25% weighting to energy consumption that is used in the demand factor for allocation of generation and transmission plant should be reduced to zero, and these costs should be allocated on the basis of the contributions of customer classes to peak demand.

   (2) The demands during peak times must receive additional emphasis, which means that the allocation factors should shift away from a 12 monthly coincident peak factor to one which recognizes the importance of the seasonal peaks, and particularly the dominant summer peak.

9. Consistent with these facts, I have presented class cost of service studies based on a 12 coincident peak methodology with 100% weighting to demand, a single summer coincident peak allocation methodology with 100% weighting given to demand, and two summer/winter coincident peak methodologies with 100% weighting given to demand.

10. A revenue allocation that better recognizes these summer-peaking patterns is appropriate. As compared to PacifiCorp's proposed generally across-the-board increase, it would be appropriate to increase the Residential class less than the average, Rate Schedules 8 and 9, less than the Residential class, and to increase Rate Schedule 6 by more than the system average. My specific recommendation is set forth on Schedule 6.

CLASS COST OF SERVICE

Q HAVE YOU REVIEWED PACIFICORP'S CLASS COST OF SERVICE STUDIES CONTAINED IN THE TESTIMONY OF MR. DAVE TAYLOR?

A Yes, I have. Mr. Taylor presents the results of cost of service studies using both the Multi-State Protocol (MSP) and the Rolled-in methods.

Q WHAT IS YOUR UNDERSTANDING OF THE PURPOSE OF THE MSP?

A It is my understanding that the MSP was developed as a result of discussions among various parties in several state jurisdictions for the purpose of establishing a consistent approach to the allocation of PacifiCorp's costs among the jurisdictions in which it provides service. As such, it is largely a product of compromise, with various

parties asserting different interests and positions, yet being willing to recommend the use of a particular methodology subject to certain conditions, including caps on the impact of the MSP on state revenue requirements as compared to the previously adopted rolled-in method in Utah. The MSP employs the Revised Protocol, an interjurisdictional cost allocation method proposed by PacifiCorp in the MSP. The Revised Protocol is a method of apportioning the costs and revenues associated with PacifiCorp's generation, transmission and distribution systems among the six states in which PacifiCorp operates.

As I understand the MSP process and the Revised Protocol, the primary purpose was to reduce PacifiCorp's exposure to unrecovered costs as a result of the adoption of different jurisdictional allocation methodologies across its system. As such, it must be viewed as a compromise and not as defining a proper cost-based allocation methodology.

Q HAVE YOU REVIEWED THE COMMISSION'S DECEMBER 14, 2004 ORDER IN DOCKET NO. 02-035-04 CONCERNING THE MSP MATTER?

A Yes, I have. As indicated on Page 37 of that Order, the Commission approved a multi-party stipulation with certain expressed conditions which basically required adoption of the MSP Revised Protocol method in other states without material change or conditions, that it must survive any legal challenges, and in the long run must not result in significantly different impacts on Utah than now expected. The stipulation embodies the allocation methodology as well as the caps on revenue requirement impacts for the state of Utah.

Q SHOULD THE FACT THAT THE MSP STIPULATION WAS APPROVED BY THE COMMISSION HAVE ANY BEARING ON THE METHODOLOGY USED TO EXAMINE THE PROFITABILITY OF INDIVIDUAL CUSTOMER CLASSES WITHIN UTAH OR TO FORM A BASIS FOR THE ALLOCATION OF ANY CHANGES IN REVENUE REQUIREMENT?

A No. As indicated above, the MSP, including the stipulation and conditions, are the product of compromise designed to achieve a more uniform methodology among the various states for the calculation of jurisdictional revenue requirements. The Commission was clear about this at Page 41 of its December 14 Order in Docket No. 02-035-04, stating:

> "We further conclude the Revised Protocol only addresses inter-jurisdictional cost allocation which means class cost of service will be dealt with in other dockets such as general rate cases."

For these reasons, the results of the Rolled-in methodology should be used to appraise the profitability of individual customer classes and to guide the allocation of any change in revenues among rate schedules. Although I will present the results of the MSP method as well, I do so for comparison purposes only, and do not rely upon them for purposes of my recommendations.

Q BEFORE DISCUSSING PARTICULAR COST ALLOCATION METHODS, PLEASE DESCRIBE THE CHARACTERISTICS OF THE LOADS ON THE PACIFICORP SYSTEM.

A For this purpose, I have looked at the loads on the PacifiCorp system, as well as for the Utah jurisdiction, over roughly the last decade (1994 actual through the projected fiscal 2006 test year).

Schedule 1 shows visually the monthly peaks for the Utah jurisdiction for 1994 and for fiscal year 2006 (12 months ended March 2006), the test year in this proceeding. It is obvious that summer peak loads are increasing at substantially higher rates than is the case for loads in other months. Table 1 shows a summary of these statistics. The summer peak load for Utah has increased over 80% during this period of time. Loads in other months have increased by significantly smaller amounts and percentages.

TABLE 1

PacifiCorp – Utah
Peak Load Statistics

	1994 (1)	2006 Test Year (2)	Difference Amount (3)	Difference Percent (4)
When Peak Occurs	Summer	Summer		
Summer Peak, MW	2,259	4,135	1,876	83%
Winter Peak, MW	2,059	3,292	1,233	60%
Seasonal Growth				
Summer (June – Sept), MW*	2,110	3,819	1,709	81%
Winter (Jan, Feb, Dec), MW*	1,941	3,197	1,256	65%
Other Months, MW*	1,826	2,784	958	52%

*Average of Monthly Peaks

Q HAVE YOU MADE A SIMILAR COMPARISON FOR THE PACIFICORP SYSTEM?

A Yes. This is shown on Schedule 2. Again, summer peak load growth far exceeds load growth in other months of the year. Table 2 summarizes the key statistics from this review of the entire PacifiCorp system load characteristics. Note that the peak

load which formerly occurred in the winter now occurs during the summer. The summer peak load has grown in excess of 25%, while loads in other months have grown by less than half that much.

TABLE 2

PacifiCorp
Peak Load Statistics

	1994 (1)	2006 Test Year (2)	Difference Amount (3)	Difference Percent (4)
When Peak Occurs	Winter	Summer		
Summer Peak, MW	6,726	8,706	1,980	29%
Winter Peak, MW	7,227	8,087	860	12%
Seasonal Growth				
Summer (June – Sept), MW*	6,520	8,218	1,698	26%
Winter (Jan, Feb, Dec), MW*	7,108	7,985	877	12%
Other Months, MW*	6,383	7,035	652	10%

*Average of Monthly Peaks

Q WHAT DO YOU CONCLUDE FROM THIS ANALYSIS?

A I conclude that the summer peaks are becoming more dominant on the PacifiCorp system and that this same characteristic appears in the Utah state loads as well.

Q HAS PACIFICORP IN ITS TESTIMONY IN THIS PROCEEDING MADE NOTE OF THIS PHENOMENON?

A Yes. A substantial portion of the testimony of Mr. Reed Davis addresses this issue and confirms the increasing dominance of summer peak loads, especially in Utah. In

particular, at Page 16 of his direct testimony Mr. Davis notes the significant growth in average usage per customer from 1992 to 2003 during the summer as compared to the winter months. He goes on to state that use during the four months in the summer is growing much faster than the remaining months, which has a large impact on the growth of the system peak.

Mr. Davis further points out that prior to 1999 the system as a whole peaked during the winter but because of subsequently occurring changes PacifiCorp now experiences summer peaks and expects this pattern to continue into the future.

In terms of Utah growth rates, Mr. Davis points out that from 1994 to 2003 the energy growth in Utah averaged 2.3% per year, while the summer peak average growth rate was in excess of 5% per year, more than twice as much.

Q HAVE YOU REVIEWED PACIFICORP'S PATTERN OF MONTHLY POWER PURCHASES?

A Yes.

Q WHAT DOES THAT ANALYSIS REVEAL?

A According to information provided by PacifiCorp in connection with the production system costing analysis, short-term power purchases during the summer months are in excess of 600 megawatts, whereas short-term purchases in other months are in the range of 75 megawatts to 275 megawatts. This is further evidence of the dominance of the summer peak loads.

Q HAVE YOU REVIEWED ANY OTHER INFORMATION?

A Yes. I have reviewed material provided in connection with the certification of the Lakeside facility and the Currant Creek facility. This information confirms the importance of the summer peak loads, and the fact that it is summer peak loads that are driving the need for capacity additions.

CLASS COST OF SERVICE STUDIES

Q HAVE YOU PREPARED ANY ALTERNATIVE CLASS COST OF SERVICE STUDIES?

A Yes, I have. Schedule 3 is a high level summary showing the indexes of return at present rates for the major customer classes (Rate Schedule Nos. 1, 6, 8, 9 and 23). (These rate schedules constitute approximately 98% of PacifiCorp's total Utah rate schedule revenues.) Results are shown for the Rolled-in method, and (for comparison) the MSP method. (More detailed results appear in Schedules 4 and 5.)

Q WHAT DO THE NUMBERS ON THIS SCHEDULE MEAN?

A As indicated in the footnote these are rates of return expressed on an index basis. In general, an index value less than 100 means the class is below the system average rate of return and would require an above-average percentage increase to move to cost of service. On the other hand, if the index is above 100 it means that a class is above the system average rate of return and would require an increase below the system average to move to cost of service.

Q PLEASE DESCRIBE THE VARIOUS STUDIES THAT ARE SUMMARIZED ON SCHEDULE 3.

A The first column in each grouping (Columns 1 and 6) shows the results of the Company study. It is based on a 75% weighting of demand and a 25% weighting to energy and uses the 12 monthly coincident peaks.

The next column (Columns 2 and 7) show the results if the Company's 12 coincident peak method is continued, but the weighting for demand is moved from 75% to 100%, and correspondingly the weighting for energy is decreased from 25% to 0%. The next column (Columns 3 and 8) show the results with 100% weighting to demand and use of the single annual summer peak allocation methodology. The next column (Columns 4 and 9) show the results based on 100% weighting to demand and use of the summer peak and the winter peak demand in the allocation factor. The final columns (Columns 5 and 10) are also summer/winter but use the two highest months from each season.

Q PLEASE EXPLAIN WHY YOU SELECTED THESE PARTICULAR ALLOCATION APPROACHES.

A First, it is clear from a review of load patterns and changes in load patterns that peak loads, and especially summer peak loads, have become increasingly important and dominant on the PacifiCorp system – both on a system basis and in Utah. This increased importance of peak demands makes it imperative that cost responsibility be more carefully and appropriately articulated and used to assign costs to customer classes. The significant energy weighting in the existing allocation methodology dilutes the impact of peak loads and makes it less likely that cost-causers will bear the consequences of their load shape. Retaining a 25% weighting for energy in the demand allocation factor blurs the cost allocation and consequently the price signals and is not consistent with good rate design practices.

Further, the MSP Revised Protocol embodies the concept of apportioning costs of hydro-electric resources to the northwest states, and not to Utah. One of the justifications for an energy weighting in the demand allocation factor was the storage characteristics of hydro. The change in the dominance of the peaks, coupled with the change in the philosophy that underlies the MSP, means that it is appropriate to eliminate the energy weighting from the demand allocation factor.

Q PLEASE ADDRESS THE REDUCTION IN THE NUMBER OF PEAKS CONSIDERED.

A As indicated in the prior discussion of load shapes, the summer peak load is increasingly dominant on the PacifiCorp system, and also in Utah. This means that demands in other months become relatively less significant from a capacity planning standpoint and from a cost-responsibility perspective. It is therefore appropriate to move away from the 12 coincident peak average toward methodologies that place more emphasis on the annual peak demands. The summer peak is now the most dominant and should receive the greatest weighting. I have also shown an allocation based on a consideration of both summer and winter peak demands since the system continues to have a secondary peak during the winter.

REVENUE ALLOCATION RECOMMENDATIONS

Q IN GENERAL, WHAT DO THE VARIOUS COST OF SERVICE STUDY RESULTS THAT YOU HAVE PRESENTED SUGGEST AS A BASIS FOR ALLOCATING ANY REVENUE INCREASE THAT MAY BE FOUND APPROPRIATE FOR PACIFICORP?

A With respect to the major customer classes shown on my Schedule 3, my recommendation is that the Residential class (Rate Schedule 1) receive slightly less than the system average increase and the General Service – Small (Rate Schedule 23) receive about the system-average increase. I also recommend that General Service – Large (Rate Schedule 6) receive an increase greater than the system average, and that General Service – Over 1 MW (Rate Schedule 8) and General Service – High Voltage (Rate Schedule 9) receive increases less than the Residential class. Following this pattern of increases will more accurately align revenue responsibility with cost responsibility by recognizing the increasing importance of peak demands on the PacifiCorp system.

Q HAVE YOU DEVELOPED A SPECIFIC RECOMMENDATION FOR THE SPREAD OF ANY REVENUE INCREASE?

A Yes. For comparison purposes, Schedule 6 presents my recommendation using the same dollar amount of increase that PacifiCorp has requested. I present this strictly for comparison purposes, and it should not be interpreted as a recommendation that PacifiCorp is entitled to receive the amount of increase that it has requested.

Q HOW DOES YOUR RECOMMENDED ALLOCATION DIFFER FROM PACIFICORP'S?

A First, let me indicate that there are a number of rate schedules where I have not proposed any treatment different than PacifiCorp. These would be Rate Schedules 7, 10, 11, 12, 13, 21, 23 and 31.

My recommendation for the Residential class Rate Schedules 1, 2 and 3, is approximately 90% of the average increase or 9.14%. My recommendation for Rate

Schedule 8 and 9 customers is 70% of the system-average increase or 7.11%. The balance would be assigned to Rate Schedule 6 producing an overall increase of 13.58%, about 1.3 times the system-average increase.

For the major rate schedules this pattern of increases is consistent with the cost of service studies, particularly those which place more appropriate emphasis on peak demands.

Q WHAT WOULD BE YOUR RECOMMENDATION IF PACIFICORP RECEIVES LESS THAN ITS REQUESTED RATE INCREASE?

A I would adjust to this level by scaling down the revenues in Column 6 on Schedule 6 (but only for those classes receiving increases) to match the level of revenue that is awarded to PacifiCorp.

Q CAN YOU ILLUSTRATE WITH AN EXAMPLE?

A Yes. Assume, for purposes of example only, that instead of an increase of $111 million, PacifiCorp were to be granted an overall increase of $40 million. With that amount of increase the revenue after the increase (Column 6) would in total be $1.133 billion ($1.093 billion at present rates plus a $40 million increase). To adjust the revenues to a level consistent with this amount of increase, the $1.133 billion revenue with the awarded rate increase would be divided by the revenue under the Company's proposed rates of $1.204 billion. The resulting fraction is approximately 94.1%. This percentage would be applied to all of the individual class and rate schedule revenues shown in Column 6 on my Schedule 6 to determine the appropriate amount of revenue consistent with a $40 million revenue increase.

Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

A Yes, it does.

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