

Exhibit No.  
Witness: Maurice Brubaker  
Type of Exhibit: Direct Testimony  
Sponsoring Party: Sedalia Industrial Energy Users Association  
Subjects: Rate Design  
Date: January 13, 2004

**BEFORE THE  
PUBLIC SERVICE COMMISSION OF MISSOURI**

In the Matter of Aquila, Inc., d/b/a Aquila )  
Networks – MPS and Aquila Networks - ) Case No. GR-2004-0072  
L&P, Natural Gas General Rate Increase. )

Direct Testimony and Schedules of

**Maurice Brubaker**

On behalf of

**Sedalia Industrial Energy Users Association**

January 13, 2004  
Project 8118



**BEFORE THE  
PUBLIC SERVICE COMMISSION OF MISSOURI**

In the Matter of Aquila, Inc., d/b/a Aquila            )  
Networks – MPS and Aquila Networks -            )     Case No. GR-2004-0072  
L&P, Natural Gas General Rate Increase.        )

**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 the Sedalia Industrial Energy Users Association in this proceeding on their behalf.

2.       Attached hereto and made a part hereof for all purposes is my direct testimony and schedules which were prepared in written form for introduction into evidence in the GR-2004-0072 Proceeding.

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

  
\_\_\_\_\_

Maurice Brubaker

Subscribed and sworn before this 13th day of January, 2004.

<p><b>CAROL SCHULZ</b> Notary Public (Notary Seal) STATE OF MISSOURI St. Louis County My Commission Expires: Feb. 26, 2004</p>
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Notary Public

My Commission expires on February 26, 2004.

**BEFORE THE  
PUBLIC SERVICE COMMISSION OF MISSOURI**

In the Matter of Aquila, Inc., d/b/a Aquila     )  
Networks – MPS and Aquila Networks -     )     Case No. GR-2004-0072  
L&P, Natural Gas General Rate Increase.     )

**Direct 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. (BAI), energy, economic and regulatory consultants.

7     **Q     PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

8     **A**     This information is included in Appendix A to my testimony.

9     **Q     ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

10    **A**     I am appearing on behalf of the Sedalia Industrial Energy Users Association (SIEUA).  
11    Members are transportation customers of Missouri Public Service Company (MPS).

1 **Q WHAT IS THE SUBJECT OF YOUR TESTIMONY?**

2 A I will address the class cost of service study and the appropriate allocation of any  
3 change in revenues that may result from this proceeding.

4 **Q HAVE YOU REVIEWED THE CLASS COST OF SERVICE STUDY PRESENTED BY**  
5 **AQUILA WITNESS THOMAS J. SULLIVAN?**

6 A Yes.

7 **Q DO YOU HAVE AN OPINION AS TO THE PROPRIETY OF THE COST OF SERVICE**  
8 **STUDY THAT MR. SULLIVAN HAS PRESENTED?**

9 A In general, Mr. Sullivan has applied generally utilized principles and procedures to  
10 develop the class cost of service study. I do take exception to Mr. Sullivan's allocation of  
11 the cost of transmission mains using a 50% weighting of peak demand and a 50%  
12 weighting of throughput.

13 **Q PLEASE EXPLAIN WHY YOU DISAGREE WITH THIS WEIGHTING?**

14 A The investment in transmission mains depends upon the peak demand that must be  
15 met, and not at all on annual throughput. Were I to revise Mr. Sullivan's study to reflect  
16 this difference, more costs would be allocated to the Residential and General Service  
17 classes, and less costs would be allocated to the remaining customer classes, including  
18 the Large Volume sales, Small Volume Transportation and Large Volume Transportation  
19 classes.

1 **Q HAVE YOU MADE THESE CHANGES?**

2 A No, I have not. For purposes of this proceeding at this time, I have elected not to make  
3 this revision. Rather, I will utilize Mr. Sullivan's study as filed and caveat the use of that  
4 study with the above exception as to the allocation of transmission mains. Also, were I  
5 to undertake a detailed review of Mr. Sullivan's study, I might suggest certain other  
6 refinements as well. Using Mr. Sullivan's study is conservative from the perspective of  
7 the Residential and General Service classes, and adverse to the interests of the Large  
8 Volume, Small Volume Transportation and Large Volume Transportation customers.

9 **Q WHERE DOES MR. SULLIVAN SHOW THE RESULTS OF HIS CLASS COST OF**  
10 **SERVICE STUDY FOR MPS?**

11 A This is shown on Schedule TJS-14. Page 2 of Schedule TJS-14, Line 22, shows the  
12 rates of return under existing tariffs according to MPS and Mr. Sullivan's cost of service  
13 study. As compared to a system average rate of return of 3.87% on rate base, Mr.  
14 Sullivan reports a Residential class rate of return of 3.0%, a General Service class rate  
15 of return of 5.36%, a Large Volume sales rate of return of 1.8%, a Small Volume  
16 Transportation class rate of return of 19.5%, and a rate of return of 7.8% for Large  
17 Volume Transportation customers.

18 **Q WHERE DOES MR. SULLIVAN SHOW THE DOLLAR INCREASES REQUIRED FROM**  
19 **EACH CLASS TO REACH COST OF SERVICE?**

20 A This is shown on Page 1 of Schedule TJS-14, Line 14.

1 **Q** **WHERE DOES MR. SULLIVAN SHOW THE INCREASE THAT WOULD RESULT**  
2 **FROM HIS PROPOSED REVENUE ALLOCATION AND RATE DESIGN?**

3 A This is shown on Schedule TJS-19.

4 **Q** **HAVE YOU MADE A COMPARISON BETWEEN THE INCREASES INDICATED BY**  
5 **THE CLASS COST OF SERVICE STUDY AND THE INCREASES UNDER THE**  
6 **PROPOSED REVENUE ALLOCATION AND RATE DESIGN?**

7 A Yes. This appears on Schedule 1 of my testimony.

8 **Q** **WHAT CONCLUSIONS DO YOU DRAW FROM THIS COMPARISON?**

9 A First, I would note that as between the Residential class and all other sales MPS has,  
10 appropriately, followed the results of Mr. Sullivan's cost of service study. The problem  
11 lies within the non-Residential class where the General Service and Large Volume sales  
12 customers receive increases less than indicated by the cost of service study, while the  
13 Large Volume Transportation class receives an increase significantly larger than  
14 indicated by the cost of service study. (The Small Volume Transportation class receives  
15 a slight decrease, but the cost of service study shows that a larger increase would be  
16 appropriate.)

17 **Q** **WHAT IS THE MAGNITUDE OF THE DIFFERENTIAL WITH RESPECT TO THE**  
18 **LARGE VOLUME TRANSPORTATION CLASS?**

19 A The Large Volume Transportation class receives an increase that is almost four times as  
20 much as justified by the cost of service study. It receives an increase of \$397,000,  
21 compared to a cost-justified increase of \$101,000.

1 **Q WHO IS THE PRIMARY BENEFICIARY OF THIS OVERCHARGE TO THE LARGE**  
2 **VOLUME TRANSPORTATION CUSTOMERS?**

3 A It is the General Service class. The General Service class would receive an increase of  
4 about 5%, as compared to a cost-justified increase of 6.8%. Both of these are  
5 substantially less than the 11.3% system average increase requested. Clearly, the  
6 increase to the General Service class was not held down due to rate impact  
7 considerations.

8 **Q DOES MR. SULLIVAN, OR ANY OTHER AQUILA WITNESS, EXPLAIN OR JUSTIFY**  
9 **WHY THE PROPOSED INCREASE FOR THE LARGE VOLUME TRANSPORTATION**  
10 **CUSTOMERS IS NEARLY FOUR TIMES WHAT IS JUSTIFIED BY AQUILA'S OWN**  
11 **COST OF SERVICE STUDY?**

12 A No. I have found no attempt to rationalize this result. In fact, this specific result is not  
13 even discussed in MPS' testimony.

14 **Q WHAT IS YOUR RECOMMENDATION?**

15 A I recommend that the individual customer classes receive the increases or decreases  
16 shown in Column 3 on Schedule 1 attached to my testimony. This will align the classes  
17 with cost of service based on MPS' claims. Then, whatever percentage increase the  
18 Commission finds appropriate should be compared to the overall proposed increase of  
19 11.3%, and the revenues at cost of service using MPS' claimed revenue requirement  
20 values should be reduced proportionately.

1 **Q CAN YOU ILLUSTRATE WITH AN EXAMPLE?**

2 A Yes. Please refer to Schedule 2 attached to this testimony. The first step is to increase  
3 each customer class as shown in Column 2 of Schedule 1 attached to this testimony.  
4 Total revenues under this circumstance would be \$55,725,000 (\$50,105,000 plus  
5 \$5,620,000), as shown in Column 1 of Schedule 2.

6 If the Commission were to grant a 3% increase, revenues would increase by  
7 \$1,503,000 to the level of \$51,608,000. This number would then be divided by the  
8 revenues at MPS' claimed revenue requirement of \$55,725,000. The resulting ratio,  
9 0.926, would then be multiplied times the revenues at cost of service-based rates under  
10 Aquila's claims to derive adjusted revenues based on the actual amount of revenue  
11 increase awarded by the Commission. See Column 2 of Schedule 2.

12 The overall dollar and percentage changes in revenues are shown in Columns 3  
13 and 4 on Schedule 2.

14 This same procedure should be applied regardless of the amount of change in  
15 revenues approved by the Commission.

16 **Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

17 A Yes.



## Qualifications of Maurice Brubaker

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

2    A    Maurice Brubaker. My business mailing address is P. O. Box 412000, 1215 Fern Ridge  
3        Parkway, Suite 208, St. Louis, Missouri 63141-2000.

4    **Q    PLEASE STATE YOUR OCCUPATION.**

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

7

8    **Q    PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

9    A    I was graduated from the University of Missouri in 1965, with a Bachelor's Degree in  
10        Electrical Engineering. Subsequent to graduation I was employed by the Utilities Section  
11        of the Engineering and Technology Division of Esso Research and Engineering  
12        Corporation of Morristown, New Jersey, a subsidiary of Standard Oil of New Jersey.

13            In the Fall of 1965, I enrolled in the Graduate School of Business at Washington  
14        University in St. Louis, Missouri. I was graduated in June of 1967 with the Degree of  
15        Master of Business Administration. My major field was finance.

16            From March of 1966 until March of 1970, I was employed by Emerson Electric  
17        Company in St. Louis. During this time I pursued the Degree of Master of Science in  
18        Engineering at Washington University, which I received in June, 1970.

19            In March of 1970, I joined the firm of Drazen Associates, Inc., of St. Louis,  
20        Missouri. Since that time I have been engaged in the preparation of numerous studies  
21        relating to electric, gas, telephone and water utilities. These studies have included  
22        analyses of the cost to serve various types of customers, the design of rates for utility

1 services, cost forecasts, cogeneration rates and determinations of rate base and  
2 operating income. I have also addressed utility resource planning principles and plans,  
3 reviewed capacity additions to determine whether or not they were used and useful,  
4 addressed demand-side management issues independently and as part of least cost  
5 planning, and have reviewed utility determinations of the need for capacity additions  
6 and/or purchased power to determine the consistency of such plans with least cost  
7 planning principles and the prudence of the actions undertaken.

8 I have testified before the Federal Energy Regulatory Commission (FERC),  
9 various courts and legislatures, and the state regulatory commissions of Alabama,  
10 Arizona, Arkansas, California, Colorado, Connecticut, Delaware, Florida, Georgia,  
11 Guam, Hawaii, Illinois, Indiana, Iowa, Kentucky, Louisiana, Michigan, Missouri, Nevada,  
12 New Jersey, New Mexico, New York, North Carolina, Ohio, Pennsylvania, Rhode Island,  
13 South Carolina, South Dakota, Texas, Utah, Virginia, West Virginia, Wisconsin and  
14 Wyoming.

15 The firm of Drazen-Brubaker & Associates, Inc. was incorporated in 1972 and  
16 assumed the utility rate and economic consulting activities of Drazen Associates, Inc.,  
17 founded in 1937. In April, 1995 the firm of Brubaker & Associates, Inc. was formed. It  
18 includes most of the former DBA principals and staff. Our staff includes consultants with  
19 backgrounds in accounting, engineering, economics, mathematics, computer science  
20 and business.

21 During the past ten years, Brubaker & Associates, Inc. and its predecessor firm  
22 has participated in over 700 major utility rate and other cases and statewide generic  
23 investigations before utility regulatory commissions in 40 states, involving electric, gas,  
24 water, and steam rates and other issues. Cases in which the firm has been involved

1 have included more than 80 of the 100 largest electric utilities and over 30 gas  
2 distribution companies and pipelines.

3 An increasing portion of the firm's activities is concentrated in the areas of  
4 competitive procurement. While the firm has always assisted its clients in negotiating  
5 contracts for utility services in the regulated environment, increasingly there are  
6 opportunities for certain customers to acquire power on a competitive basis from a  
7 supplier other than its traditional electric utility. The firm assists clients in identifying and  
8 evaluating purchased power options, conducts RFPs and negotiates with suppliers for  
9 the acquisition and delivery of supplies. We have prepared option studies and/or  
10 conducted RFPs for competitive acquisition of power supply for industrial and other end-  
11 use customers in more than a dozen states, involving total needs in excess of 2,500  
12 megawatts.

13 In addition to our main office in St. Louis, the firm also has branch offices in  
14 Corpus Christi, Texas; Plano, Texas; Denver, Colorado; Asheville, North Carolina; and  
15 Chicago, Illinois.

MEB:cs/8118/42538

## AQUILA NETWORKS – MPS

### Cost-Based Increases Compared to Increases Proposed by MPS (\$000)

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<u>Line</u>	<u>Class</u>	<u>Revenue</u> (1)	<u>Cost of Service Increase</u>		<u>Proposed Increase</u>	
			<u>Amount</u> (2)	<u>Percent</u> (3)	<u>Amount</u> (4)	<u>Percent</u> (5)
1	Residential	\$32,901	\$4,429	13.5%	\$4,429	13.5%
2	General Service	15,942	1,087	6.8	792	5.0
3	Large Volume	105	6	5.7	3	2.9
4	Small Volume Transportation	11	(3)	(27.3)	(1)	(9.1)
5	Large Volume Transportation	<u>1,146</u>	<u>101</u>	8.8	<u>397</u>	34.6
6	Total	\$50,105	\$5,620	11.3%	\$5,620	11.3%

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Note: Transportation excludes contract sales.

Source: Columns 1, 4 and 5 from Schedule TJS-19  
Columns 2 and 3 from Schedule TJS-14

## AQUILA NETWORKS – MPS

### Illustration of Revenue Increases With an Overall 3% Increase (\$000)

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Line	Class	Revenues at Cost of Service - MPS Claims (1)	Times Multiplier* (2)	Increase	
				Amount (3)	Percent (4)
1	Residential	\$37,330	\$34,572	\$1,671	5.1%
2	General Service	17,029	15,771	(171)	( 1.1)
3	Large Volume	111	103	( 2)	( 1.8)
4	Small Volume Transportation	8	7	( 4)	(36.4)
5	Large Volume Transportation	<u>1,247</u>	<u>1,155</u>	<u>9</u>	0.8
6	Total	\$55,725	\$51,608	\$1,503	3.0%

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\* $(\$50,105 \times 1.03) \div \$55,725 = 0.926122$