Exhibit No.:
Witness: Maurice Brubaker
Type of Exhibit: Direct Testimony
Issue: Cost of Service and Rate Design
Sponsoring Party: Federal Executive Agencies
Sedalia Industrial Energy Users' Association
St. Joe Industrial Group
Case No.: ER-2005-0436

Before the Public Service Commission of the State of Missouri

In the Matter of the Tariff Filing of Aquila, Inc., to Implement a General Rate Increase for Retail Electric Service Provided to Customers in its MPS and L&P Missouri Service Areas.	)))))	Case No. ER-2005-0436

Direct Testimony and Schedules of

Maurice Brubaker

On behalf of

Federal Executive Agencies
Sedalia Industrial Energy Users' Association
St. Joe Industrial Group

Project 8415
October 28, 2005

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

Before the Public Service Commission
of the State of Missouri

In the Matter of the Tariff Filing of Aquila, Inc., to Implement a General Rate Increase for Retail Electric Service Provided to Customers in its MPS and L&P Missouri Service Areas.	))))	Case No. ER-2005-0436

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 the Federal Executive Agencies, the Sedalia Industrial Energy Users' Association and the St. Joe Industrial Group 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 Missouri Public Service Commission Case No. ER-2005-0436.

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

Maurice Brubaker

Subscribed and sworn to before this 27th day of October 2005.

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

Notary Public

My Commission Expires February 26, 2008.

Before the Public Service Commission
of the State of Missouri

In the Matter of the Tariff Filing of Aquila, Inc., to Implement a General Rate Increase for Retail Electric Service Provided to Customers in its MPS and L&P Missouri Service Areas.	))))	Case No. ER-2005-0436

Direct 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 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 PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.

A This information is included in Appendix A to my October 14, 2005 testimony on revenue requirement issues.

Q WHAT IS THE SUBJECT OF THIS TESTIMONY?

A My testimony addresses cost of service and rate design issues.

Executive Summary

Q PLEASE SUMMARIZE YOUR TESTIMONY.

A First, I note that interclass revenue allocation is being considered in Case No. EO-2002-384 and point out that new cost of service studies or new cost of service arguments should not be introduced in this case. Rather, interclass revenue adjustments from the EO-2002-384 case should be first applied to the current revenues in this case before increasing rates further for additional revenue requirements.

I explain why an equal percent across-the-board rate increase for any revenue adjustments that is found appropriate in this case is a reasonable approach. It maintains current interclass revenue relationships and is consistent with the spirit of interclass revenue realignments from Case No. EO-2002-384. Departing from an across-the-board increase would be inconsistent with the realignments in the cost of service case. I explain that the across-the-board approach should apply not only to any change in base rates, but also to the implementation of any interim energy charge (IEC).

Finally, I discuss how changes should be implemented if there is a desire to track changes in fuel-related costs on a per kWh basis. I point out that if fuel-related costs are tracked on a per kWh basis, the appropriate way to implement rate adjustments is first to determine the revenues of each customer class that currently recover the costs other than fuel-related (i.e., the non-fuel revenues). I explain why, if there is a separation, it would be appropriate to apply any increase in non-fuel revenues as an equal percentage of the existing non-fuel revenues, rather than as an equal percentage of total base revenues because the base revenues include both fuel and non-fuel revenues. If increases in non-fuel revenues were allocated to

classes as an equal percent of base rate revenues, the fuel component would be double-weighted and rate relationships would be distorted.

Revenue Allocations

Q ARE YOU PRESENTING ANY CLASS COST OF SERVICE STUDIES IN THIS PROCEEDING?

A No. There is a separate proceeding, Case No. EO-2002-384, in which class cost of service and general rate design issues are being addressed. Accordingly, it is both unnecessary and inappropriate to introduce new cost of service studies or cost of service study arguments in this proceeding.

In the cost of service case, Case No. EO-2002-384, the Commission has a variety of proposals before it with respect to the appropriate basis for allocation of costs among customer classes and also some recommendations with respect to the speed of movement from current rates to the rates that would be equal to the results of the cost of service studies.

Q HOW SHOULD THE RESULTS OF THE COST OF SERVICE CASE BE INCORPORATED INTO THIS RATE CASE DOCKET?

A Presumably, the Commission will determine some interclass revenue allocation designed to move rates closer to cost of service. It may or may not decide to move rates all the way to cost of service in one step. Regardless of what that determination is, I recommend that it be incorporated as a revenue-neutral shift among customer classes using the permanent (base) revenues at present rates in this proceeding as the starting point.

Q PLEASE ILLUSTRATE.

A Suppose that the Commission were to determine that Class A should face a 6% revenue neutral increase, while Classes B through F should receive various decreases from current rates. These would be the amounts of increases and decreases to apply to those various classes before reflecting the effects of any revenue increase that Aquila L&P and Aquila MPS may receive in this proceeding.

Q HOW SHOULD THE REVENUE INCREASE BE REFLECTED IN CLASS REVENUES?

A The revenue increase granted should be applied as an equal percentage increase to the revenues of all customer classes after the interclass revenue shifts have been accomplished.

Q WHY DO YOU RECOMMEND APPLYING THE INCREASE IN THIS FASHION?

A An across-the-board or equal percent increase preserves the rate relationship that exists after the interclass revenue shifts that are derived from consideration of class cost of service studies are incorporated. In the absence of new class cost of service studies, it is appropriate to preserve these interrelationships as there is no evidence that any other relationship would be more appropriate. Accordingly, allocation of any increase that may be awarded in this case on an equal percentage basis will preserve the results of the interclass revenue adjustments that are found appropriate in the cost of service case.

Q WOULD THE SAME APPROACH BE APPROPRIATE IF PART OF THE INCREASE IS IN THE FORM OF AN INTERIM ENERGY CHARGE (IEC)?

A Yes. Allocation on any other basis would alter the interclass revenue adjustments found appropriate in the cost of service case. Accordingly, only the equal percent across-the-board approach will preserve these relationships that have been found appropriate after reviewing the cost of service evidence.

Q HAVE YOU PREPARED AN EXAMPLE TO ILLUSTRATE THE APPLICATION OF AN EQUAL PERCENT INCREASE?

A Yes. Please see Schedule 1. Page 1 of Schedule 1 is for L&P and page 2 of Schedule 1 is for MPS. In the first column, I show base rate revenues at current rates. For purposes of illustration, I am going to use these revenues as a basis for the allocation of any revenue increase because I do not know what inter-class revenue shifts the Commission may order in Case No. EO-2002-384. After the Commission has decided on the revenue shifts from that case, they should be factored in before applying the revenue increase.

Q PLEASE CONTINUE WITH YOUR EXPLANATION.

A Let's assume that for L&P, base rates are increased by $3 million and an amount equal to $1 million is placed in an IEC. The schedule shows the allocation of the base revenue increase and the IEC amount. The IEC amount can be applied as an equal percentage for each customer group, or could be converted into a per kWh surcharge for each class by dividing the dollar amount allocated by class kWh sales.

Page 2 of Schedule 1 presents an example for MPS assuming a base revenue increase of $10 million and an IEC amount of $5 million.

Separate Allocation of Fuel-Related and Non-Fuel Related Costs

Q WOULD IT BE POSSIBLE TO SEPARATELY TRACK AND REFLECT INCREASES IN FUEL AND VARIABLE PURCHASE POWER COSTS?

A Yes. When the current IEC was developed, the amount of fuel and variable purchased power costs (hereafter referred to as fuel-related) in base rates was specifically identified and stipulated. Accordingly, we know how much fuel-related cost recovery is built into the current tariffs. It would therefore be possible to adjust this fuel-related cost recovery, by rate schedule, to reflect any changes in the amount of fuel-related costs to be included in base rates, as well as any amount that might be associated with a new IEC.

Q IF CHANGES IN THE FUEL-RELATED COMPONENT ARE SEPARATELY IDENTIFIED AND REFLECTED IN RATE CHANGES, HOW SHOULD CHANGES IN THE NON-FUEL COMPONENT BE REFLECTED IN RATES?

A The appropriate way to reflect in rates these changes in non-fuel costs would be to apportion them as an equal percentage of the non-fuel portion of base revenues after first adjusting for any interclass revenue shifts from Case No. EO-2002-384.

Q HAVE YOU PREPARED A SCHEDULE TO SHOW THE DERIVATION OF THE FUEL AND THE NON-FUEL REVENUES BY RATE GROUP?

A Yes. This is shown on Schedule 2.

Q WHAT IS THE SOURCE OF THE FUEL-RELATED COSTS INCLUDED IN BASE RATES?

A The source of the fuel-related costs per kWh included in base rates is Appendix A to the Stipulation and Agreement in Case No. ER-2004-0034, the previous rate case for Aquila, Inc. in which the current IEC was established. (This is provided in Schedule 2 of Mr. Featherstone's testimony in this case.)

Q PLEASE EXPLAIN HOW THE FUEL-RELATED AND NON-FUEL REVENUES ARE DEVELOPED.

A The fuel revenues are developed by multiplying the class energy sales in column 2 of Schedule 2 times the amount per kWh included in permanent rates. The non-fuel revenue, shown in column 4, is derived by subtracting the fuel-related revenue from the total permanent base rate revenue shown in column 1.

Q IS THIS DISTINCTION BETWEEN FUEL-RELATED AND NON-FUEL REVENUES IMPORTANT?

A Yes, it is important if there is a desire to reflect the impact of change in fuel-related cost recovery on a per kWh basis.

Q PLEASE EXPLAIN.

A If fuel-related costs are to be passed through on a kWh basis, then the tracking of changes in non-fuel costs should be related to the level of non-fuel revenue in each class. In other words, if increases in fuel cost are to be reflected in customer rates by increasing the amount per kWh, then any increases in the level of non-fuel costs should be allocated as a uniform percentage applied to the non-fuel revenues in each

customer class. Since total revenues include both fuel-related and non-fuel revenues, allocating increases in non-fuel costs on total revenues would distort rate relationships.

Q CAN YOU ILLUSTRATE?

A Please refer to columns 5 through 7 on Schedule 2. Focusing first on page 1, which pertains to L&P Electric, note that the residential class accounts for 44% of the non-fuel revenues, but only 39% of the fuel-related revenues. In contrast, the large power class accounts for 26% of non-fuel revenues but 33% of the fuel-related.

The differences are even larger in the case of MPS as shown on page 2 of Schedule 2. The MPS residential class constitutes 56% of non-fuel revenues but only 46% of the fuel-related revenues. The large power class represents 13% of non-fuel revenues but 23% of the fuel-related revenues.

The difference in impact between allocating increases in non-fuel costs on current non-fuel revenues as compared to total permanent revenues is appreciated by comparing columns 5 and 7. For the MPS large power class, allocation of increases in non-fuel costs on total revenues would assign to them 16% of the total, whereas they are responsible only for 13% of the non-fuel revenues. Therefore, if the above average proportion of fuel-related cost recovery associated with the large power class is to be recognized by assigning increases in fuel cost on a per kWh basis, it is imperative that the approach be applied consistently and changes in non-fuel costs be applied on the basis of existing non-fuel revenues and not on the total revenues which include both fuel and non-fuel revenues.

Q HAVE YOU PREPARED AN ILLUSTRATION OF THIS APPROACH?

A Yes. This is shown on Schedule 3. Column 1 shows the allocation of additional fuel-related costs that are to be included in base rates. The allocation is on the basis of current responsibility for fuel-related costs, which is equivalent to a per kWh allocation. Column 2 shows the allocation of additional non-fuel costs in base rates and is accomplished by increasing the existing non-fuel revenues of each class by an equal percent. Column 3 shows new base rates, which are equal to current base rates plus the two components of the increase shown in columns 1 and 2. Column 4 shows the allocation of an amount of fuel in an IEC allocated based on kWh sales. Finally, column 5 shows the sum of the new base rates and the IEC.

Q DOES THIS CONCLUDE YOUR DIRECT TESTIMONY ON COST OF SERVICE AND RATE DESIGN?

A Yes, it does.

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AQUILA NETWORKS - L&P

Illustration of an Across-the-Board
Allocation of a Revenue Increase

Line	Rate Group	Rate Revenue from Base Rates* ($000) (1)	Increase in Base Rates ($000) (2)	New Base Rates ($000) (3)	Percent Increase in Base Rates (4)	Allocation of New IEC ($000) (5)	IEC as a Percent of New Base Rates (6)	New Base Rates Plus IEC ($000) (7)
1	Residential	$42,938.5	$1,293.8	$44,232.3	3.013%	$431.3	0.975%	$44,663.5
2	Small General Service	$7,797.1	$234.9	$8,032.0	3.013%	$78.3	0.975%	$8,110.3
3	Large General Service	$19,165.8	$577.5	$19,743.3	3.013%	$192.5	0.975%	$19,935.8
4	Large Power	$27,374.3	$824.8	$28,199.1	3.013%	$274.9	0.975%	$28,474.0
5	Lighting	$2,288.6	$69.0	$2,357.6	3.013%	$23.0	0.975%	$2,380.6
6	Total	$99,564.3	$3,000.0	$102,564.3	3.013%	$1,000.0	0.975%	$103,564.3

*Before allocating any increase, there should first be an adjustment for inter-class revenue shifts from Case No. EO-2002-384

AQUILA NETWORKS - MPS

Illustration of an Across-the-Board
Allocation of a Revenue Increase

Line	Rate Group	Rate Revenue from Base Rates* ($000) (1)	Increase in Base Rates ($000) (2)	New Base Rates ($000) (3)	Percent Increase in Base Rates (4)	Allocation of New IEC ($000) (5)	IEC as a Percent of New Base Rates (6)	New Base Rates Plus IEC ($000) (7)
1	Residential	$184,480.3	$5,369.3	$189,849.6	2.910%	$2,684.6	1.414%	$192,534.2
2	Small General Service	$53,730.1	$1,563.8	$55,293.9	2.910%	$781.9	1.414%	$56,075.8
3	Large General Service	$44,644.5	$1,299.4	$45,943.9	2.910%	$649.7	1.414%	$46,593.6
4	Large Power	$54,683.2	$1,591.5	$56,274.7	2.910%	$795.8	1.414%	$57,070.5
5	Special	$519.8	$15.1	$535.0	2.910%	$7.6	1.414%	$542.5
6	Lighting	$5,526.9	$160.9	$5,687.8	2.910%	$80.4	1.414%	$5,768.2
7	Total	$343,584.7	$10,000.0	$353,584.7	2.910%	$5,000.0	1.414%	$358,584.7

*Before allocating any increase, there should first be an adjustment for inter-class revenue shifts from Case No. EO-2002-384

AQUILA NETWORKS - L&P

Determination of Fuel-Related and Non-Fuel Revenue by
Rate Group at Current Base Rates

Line	Rate Group	Total Rate Revenue from Base Rates ($000) (1)	MWh Sales (2)	Fuel-Related Revenue Included in Base Rates* ($000) (3)	Non-Fuel Revenue ($000) (4)	Percent of Revenue by Rate Group		
						Total Base (5)	Fuel-Related (6)	Non-Fuel (7)
1	Residential	$42,938.5	743,594	$9,399.8	$33,538.7	43%	39%	44%
2	Small General Service	$7,797.1	105,003	$1,327.3	$6,469.7	8%	6%	9%
3	Large General Service	$19,165.8	396,222	$5,008.6	$14,157.2	19%	21%	19%
4	Large Power	$27,374.3	629,019	$7,951.4	$19,422.8	27%	33%	26%
6	Lighting	$2,288.6	21,348	$269.9	$2,018.8	2%	1%	3%
7	Total Sales	$99,564.3	1,895,186	$23,957.0	$75,607.2	100%	100%	100%

* MWh Sales multiplied by $12.641/MWh; Aquila Networks, Case No. ER-2004-0034, "Stipulation and Agreement", Appendix A

AQUILA NETWORKS - MPS

Determination of Fuel-Related and Non-Fuel Revenue by Rate Group at Current Base Rates

Line	Rate Group	Total Rate Revenue from Base Rates ($000) (1)	MWh Sales (2)	Fuel-Related Revenue Included in Base Rates* ($000) (3)	Non-Fuel Revenue ($000) (4)	Percent of Revenue by Rate Group: Total Base (5)	Fuel-Related (6)	Non-Fuel (7)
1	Residential	$184,480.3	2,587,882	$43,098.6	$141,381.7	54%	46%	56%
2	Small General Service	$53,730.1	811,404	$13,513.1	$40,216.9	16%	15%	16%
3	Large General Service	$44,644.5	849,188	$14,142.4	$30,502.1	13%	15%	12%
4	Large Power	$54,683.2	1,285,996	$21,417.0	$33,266.2	16%	23%	13%
5	Special	$519.8	11,777	$196.1	$323.7	0%	0%	0%
6	Lighting	$5,526.9	43,914	$731.4	$4,795.5	2%	1%	2%
7	Total Sales	$343,584.7	5,590,160	$93,098.5	$250,486.2	100%	100%	100%

* MWh Sales multiplied by $16.654/MWh; Aquila Networks, Case No. ER-2004-0034, "Stipulation and Agreement", Appendix A

AQUILA NETWORKS - L&P

Illustration of Fuel / Non-Fuel Allocation of Changes in Revenue Requirement

Line	Rate Group	Base Revenues from Current Base Rates ($000) (1)	Allocation of Additional Fuel-Related Costs in Base Rates ($000) [1] (2)	Allocation of Additional Non-Fuel Costs in Base Rates ($000) [2] (3)	New Base Rates ($000) (4)	Allocation of IEC Amount ($000) [1] (5)	New Base Rates plus IEC ($000) (6)
1	Residential	$42,938.5	$588.5	$665.4	$44,192.4	$392.4	$44,584.7
2	Small General Service	$7,797.1	$83.1	$128.4	$8,008.5	$55.4	$8,064.0
3	Large General Service	$19,165.8	$313.6	$280.9	$19,760.3	$209.1	$19,969.4
4	Large Power	$27,374.3	$497.9	$385.3	$28,257.5	$331.9	$28,589.4
5	Lighting	$2,288.6	$16.9	$40.1	$2,345.6	$11.3	$2,356.8
7	Total	$99,564.3	$1,500.0	$1,500.0	$102,564.3	$1,000.0	$103,564.3

[1] Allocated on Column (6) from Schedule 2, Page 1
[2] Allocated on Column (7) from Schedule 2, Page 1

AQUILA NETWORKS - MPS

Illustration of Fuel / Non-Fuel Allocation of
Changes in Revenue Requirement

Line	Rate Group	Base Revenues from Current Base Rates ($000) (1)	Allocation of Additional Fuel-Related Costs in Base Rates ($000) [1] (2)	Allocation of Additional Non-Fuel Costs in Base Rates ($000) [2] (3)	New Base Rates ($000) (4)	Allocation of IEC Amount ($000) [1] (5)	New Base Rates plus IEC ($000) (6)
1	Residential	$184,480.3	$2,777.6	$2,257.7	$189,515.6	$2,314.7	$191,830.3
2	Small General Service	$53,730.1	$870.9	$642.2	$55,243.2	$725.7	$55,968.9
3	Large General Service	$44,644.5	$911.4	$487.1	$46,043.0	$759.5	$46,802.6
4	Large Power	$54,683.2	$1,380.3	$531.2	$56,594.7	$1,150.2	$57,744.9
5	Special	$519.8	$12.6	$5.2	$537.6	$10.5	$548.2
6	Lighting	$5,526.9	$47.1	$76.6	$5,650.6	$39.3	$5,689.9
7	Total	$343,584.7	$6,000.0	$4,000.0	$353,584.7	$5,000.0	$358,584.7

[1] Allocated on Column (6) from Schedule 2, Page 2
[2] Allocated on Column (7) from Schedule 2, Page 2