

Exhibit No.:  
Issues: Class Cost of  
Service and  
Rate Design  
Witness: James C. Watkins  
Sponsoring Party: MoPSC Staff  
Type of Exhibit: Direct Testimony  
Case No.: ER-2005-0436  
Date Testimony Prepared: October 28, 2005

**MISSOURI PUBLIC SERVICE COMMISSION**  
**UTILITY OPERATIONS DIVISION**

**DIRECT TESTIMONY**

**OF**

**JAMES C. WATKINS**

**AQUILA, INC.**

**CASE NO. ER-2005-0436**

Jefferson City, Missouri  
October, 2005

**FILED<sup>2</sup>**

FEB 24 2006

Missouri Public  
Service Commission

Exhibit No. 72  
Case No(s) ER-2005-0436  
Date 1-08-06 Rptr KE

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

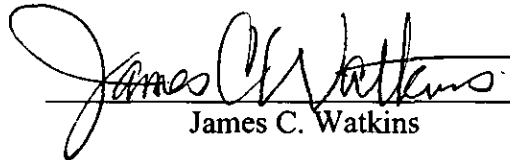
In the Matter of Aquila, Inc. d/b/a Aquila )  
Networks-MPS and Aquila Networks- )  
L&P, for Authority to File Increasing )  
Electric Rates For the Service Provided to )  
Customers in the Aquila Networks-MPS )  
and Aquila Networks-L&P Area. )

Case No. ER-2005-0436

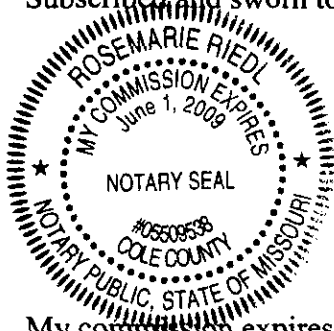
**AFFIDAVIT OF JAMES C. WATKINS**

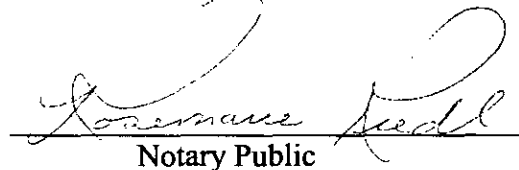
STATE OF MISSOURI     )  
                                      ) ss  
COUNTY OF COLE     )

James C. Watkins, of lawful age, on his oath states: that he has participated in the preparation of the following Direct Testimony in question and answer form, consisting of 5 pages of Direct Testimony to be presented in the above case, that the answers in the following Direct Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true to the best of his knowledge and belief.

  
James C. Watkins

Subscribed and sworn to before me this 26<sup>th</sup> day of October, 2005.



  
Notary Public

My commission expires

June 1, 2009

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1                                   **DIRECT TESTIMONY**

2                                   **OF**

3                                   **JAMES C. WATKINS**

4                                   **AQUILA, INC.**

5                                   **CASE NO. ER-2005-0436**

6           Q.     Please state your name and business address.

7           A.     My name is James C. Watkins and my business address is Missouri Public  
8 Service Commission, 200 Madison Street, P. O. Box 360, Jefferson City, Missouri  
9 65102.

10          Q.     Who is your employer and what is your present position?

11          A.     I am employed by the Missouri Public Service Commission (Commission)  
12 and my title is Manager, Economic Analysis, Energy Department, Operations Division.

13          Q.     Please review your educational background and work experience.

14          A.     I have a Bachelor of Arts Degree in Economics from William Jewell  
15 College, a year of graduate study at the University of California at Los Angeles in the  
16 Masters Degree Program, and have completed all requirements except my dissertation for  
17 a Ph.D. in Economics from the University of Missouri-Columbia. My previous work  
18 experience has been as an Instructor of Economics at Columbia College, the University  
19 of Missouri-Rolla, and William Jewell College. I have been on the Staff of the Missouri  
20 Public Service Commission (Staff) since August 1, 1982. A list of the major cases in  
21 which I have filed testimony before the Commission is shown on Schedule 1.

Direct Testimony of  
James C. Watkins

1 Q. What has been your role for the Staff in this case?

2 A. I am a case coordinator. In that role I have coordinated the efforts of the  
3 Staff in the Operations Division with those of the Staff in the Services Division in  
4 developing the Staff's cost of service recommendation (*i.e.*, revenue requirement). As  
5 Manager, Economic Analysis, I have day-to-day overseen and directed the activities of  
6 the Staff assigned to work on the class cost of service and rate design matters in this case.  
7 I am also responsible for conveying to the Commission the Staff's class cost of service  
8 and rate design recommendations in this case.

9 Q. What is the purpose of your direct testimony?

10 A. I provide a brief overview of the Staff's examination of Aquila's updated  
11 class cost of service for its two Missouri service areas, Aquila Networks-MPS and Aquila  
12 Networks-L&P, which have differing customer rates. I also present the Staff's  
13 recommendation regarding appropriate shifts in customer class revenue responsibility  
14 based on the results of the Staff's class cost-of-service studies. The Staff is not  
15 recommending any changes to Aquila's rate structures at this time. If changes are made  
16 to Aquila's rate structures, the Staff is recommending the Commission make those  
17 changes in Case No. EO-2002-384, Aquila's class cost of service and rate design case  
18 pending before the Commission.

19 **Overview And Recommendation**

20 Q. Please provide an overview of the Staff's examination of Aquila's class  
21 cost of service in this case.

Direct Testimony of  
James C. Watkins

1           A.     The Staff examined how changes in the distribution of costs and revenues  
2 since Aquila's last rate case have affected the class revenue shifts that would be required  
3 to align revenues with the cost of serving each customer class. That information from the  
4 last rate case was used in Case No. EO-2002-384. Staff witness James Busch updated the  
5 Staff's class cost-of-service study filed in Case No. EO-2002-384 to reflect the effects of  
6 changes in the distribution of costs and revenues using the same allocation factors that  
7 were used in Case No. EO-2002-384.

8           The results of the class cost-of-services studies the Staff filed in this case are quite  
9 different from the results of the class cost-of-services studies the Staff filed in Aquila's  
10 rate design case, Case No. EO-2002-384. The Staff has not yet been able to determine  
11 the cause of these differences. If they are primarily due to fluctuations in the prices of  
12 fuel and purchased power, the Staff recommends that no shifts in class revenues be made  
13 at this time. If they are due to some permanent change in Aquila's cost structure, then  
14 the Commission should: (1) determine the appropriate allocation factors to be used in a  
15 class cost-of-service study in Aquila's rate design case; (2) determine the appropriate  
16 cost structure and level of costs in this case; then (3) require the Staff to file, for the  
17 Commission's consideration, a class cost-of-service scenario based on those  
18 determinations.

19           The Staff anticipates that any rate changes the Commission approves in this case  
20 will implement both any overall revenue increase and any shifts in class revenues that it  
21 approves. The Commission should consider the overall impact on individual customers  
22 in each service area from both rate changes.

1 **Class Cost of Service**

2 Q. Did the Staff perform customer class cost-of-service studies in this case?

3 A. Yes. Staff witness James Busch presents them in his direct testimony.

4 Q. What is a cost-of-service study?

5 A. The Staff's class cost-of-service study is a mathematically-based method  
6 of assigning costs to customer classes using the best available data and methods. It can  
7 be directly compared to other such studies in terms of its quality of analysis; however,  
8 when setting rates, its underlying assumptions should be critically considered. A cost-of-  
9 service study is not "the answer," it is just one important piece of information to consider  
10 when setting rates.

11 For the most part, an electric utility's costs are what economists refer to as "joint  
12 costs." These costs are incurred to serve a group of customers rather than each individual  
13 customer separately. A cost-of-service study should use a "reasonable" method of  
14 allocating joint costs among customer classes based on usage characteristics, on the  
15 assumption that these costs are generally related to those usage characteristics, not that  
16 they are actually caused directly by the usage of any one customer. There is no single  
17 "right" answer. There are only answers that are reasonable and answers that are not. The  
18 Staff believes that it has used reasonable methods for allocating costs in its study, in  
19 particular its "time-of-use" method for allocating generation and transmission costs.

20 Q. How do the results of the Staff's class cost-of-service studies filed in this  
21 case differ from the results of the Staff's class cost-of-service studies filed in Aquila's  
22 rate design case, Case No. EO-2002-384?

Direct Testimony of  
James C. Watkins

1           A.     Mr. Bush presents those differences in his direct testimony; however, the  
2 most glaring differences are that for some classes the signs have changed on the  
3 percentage increases to revenues required to equal cost of service. For example, L&P's  
4 Large Power Service (LPS) class requires a 4.99% increase in rates based on the  
5 distribution of costs and revenues from Aquila's last rate case, but requires a 1.78 %  
6 decrease in rates based on the distribution of costs and revenues determined to be  
7 appropriate by the Staff in this case. Likewise, MPS's Residential (RES) class requires a  
8 3.06% increase in rates based on the distribution of costs and revenues from Aquila's last  
9 rate case, but requires a 1.61 % decrease in rates based on the distribution of costs and  
10 revenues determined to be appropriate by the Staff in this case and MPS's Small General  
11 Service (SGS) class requires a 4.04% decrease in rates based on the distribution of costs  
12 and revenues from Aquila's last rate case, but requires a 1.42 % increase in rates based  
13 on the distribution of costs and revenues determined to be appropriate by the Staff in this  
14 case.

15           Q.     Do you have any further testimony at this time?

16           A.     No.



## CASE LIST

1. The Empire District Electric Company	Case No. ER-83-42
2. Kansas City Power & Light Company	Case No. ER-83-49
3. Union Electric Company	Case No. ER-83-163
4. Arkansas Power & Light Company	Case No. ER-83-206
5. The Empire District Electric Company	Case No. ER-83-364
6. Kansas City Power & Light Company	Case No. EO-84-4
7. Union Electric Company	Case No. EO-85-17
8. Arkansas Power & Light Company	Case No. ER-85-20
9. Arkansas Power & Light Company	Case No. EO-85-146
10. Union Electric Company	Case No. ER-85-160
11. Kansas City Power & Light Company	Case Nos. ER-85-128 & EO-85-185
12. Arkansas Power & Light Company	Case Nos. ER-85-265 & ER-86-4
13. Union Electric Company	Case Nos. EC-87-114 & EC-87-115
14. St. Joseph Light & Power Company	Case No. HR-88-116
15. Union Electric Company	Case No. EO-87-175
16. Missouri Public Service	Case No. ER-90-101
17. The Empire District Electric Company	Case No. ER-90-138
18. Kansas City Power & Light Company	Case No. EM-91-16
19. St. Joseph Light & Power Company	Case No. EO-88-158
20. The Empire District Electric Company	Case No. EO-91-74
21. Missouri Public Service	Case No. EO-91-245
22. Missouri Public Service	Case No. EO-93-37
23. St. Joseph Light & Power Company	Case No. ER-93-41
24. St. Joseph Light & Power Company	Case No. EO-93-351
25. St. Joseph Light & Power Company	Case No. ER-94-163
26. The Empire District Electric Company	Case No. ER-94-117
27. Citizens' Electric Corporation	Case No. ER-97-286
28. The Empire District Electric Company	Case No. ER-97-81
29. The Empire District Electric Company	Case No. ER-97-491
30. Missouri Public Service	Case Nos. ER-97-394 & ET-98-103
31. St. Joseph Light & Power Company	Case Nos. EC-98-573 & ER-99-247
32. Citizens' Electric Corporation	Case No. ET-99-113
33. Union Electric Company	Case No. EO-96-15
34. Union Electric Company	Case No. EO-2000-580
35. The Empire District Electric Company	Case No. ER-2001-299
36. Missouri Public Service	Case No. ER-2001-672 & EC-2002-265
37. Union Electric Company	Case No. EC-2002-1
38. Citizens' Electric Corporation	Case No. ER-2002-217
39. The Empire District Electric Company	Case No. ER-2001-1074 (ER-2001-425)
40. The Empire District Electric Company	Case No. ER-2002-424
41. Aquila, Inc. (MPS & L&P)	Case Nos. ER-2004-0034 & HR-2004-0024
42. The Empire District Electric Company	Case No. ER-2004-0570
43. Union Electric Company	Case No. EA-2005-0180
44. Aquila, Inc.	Case No. EO-2002-384