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

#### **BEFORE THE PUBLIC SERVICE COMMISSION**

#### **OF THE STATE OF MISSOURI**

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)

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
<b>COUNTY OF COLE</b>	)

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 pages of Direct Testimony to be presented in the above case, that the answers in 5 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



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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.
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Q.

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

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

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

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

#### 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

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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 to align revenues with the cost of serving each customer class. That information from the 3 last rate case was used in Case No. EO-2002-384. Staff witness James Busch updated the 4 5 Staff's class cost-of-service study filed in Case No. EO-2002-384 to reflect the effects of changes in the distribution of costs and revenues using the same allocation factors that 6 were used in Case No. EO-2002-384. 7

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

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

Direct Testimony of James C. Watkins

### 1 Class Cost of Service

- Q. Did the Staff perform customer class cost-of-service studies in this case?
  A. Yes. Staff witness James Busch presents them in his direct testimony.
- 4 Q. What is a cost-of-service study?

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

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

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

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Direct Testimony of James C. Watkins

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

15

Do you have any further testimony at this time?

- 16
- No.

Q.

A.

# **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 Case No. ER-90-138 17. The Empire District Electric Company 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