

Exhibit No.:

Issues: Revenues; Weather Normalization of Usage; Customer Growth/Loss Annualization; Large Customer Annualization; Elimination of Unbilled Revenues; Elimination of Interim Energy Charge Revenues; Elimination of Steam Revenues; Other Revenue Account Adjustments; and Uncollectibles (Bad Debt) Expense

Witness: Amanda C. McMellen

Sponsoring Party: MoPSC Staff

Type of Exhibit: Direct Testimony

Case No.: ER-2005-0436

Date Testimony Prepared: October 14, 2005

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

DIRECT TESTIMONY

OF

AMANDA C. McMELLEN

AQUILA, INC.

**d/b/a AQUILA NETWORKS-MPS – ELECTRIC
AND AQUILA NETWORKS – L&P – ELECTRIC**

CASE NO. ER-2005-0436

*Jefferson City, Missouri
October 2005*

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)	Case No. ER-2005-0436
Retail Electric Service Provided to Customers)	Tariff No. YE-2005-1045
in Its MPS and L&P Missouri Service Areas.)	

AFFIDAVIT OF AMANDA C. MCMELLEN

STATE OF MISSOURI)	
)	ss.
COUNTY OF COLE)	

Amanda C. McMellen, being of lawful age, on her oath states: that she has participated in the preparation of the following Direct Testimony in question and answer form, consisting of 14 pages to be presented in the above case; that the answers in the following Direct Testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of her knowledge and belief.


Amanda C. McMellen

Subscribed and sworn to before me this 12th day of ~~October~~ 2005.


Notary



TONI M. CHARLTON
Notary Public - State of Missouri
My Commission Expires December 28, 2008
Cole County
Commission #04474301

TABLE OF CONTENTS

DIRECT TESTIMONY OF

AMANDA C. McMELLEN

AQUILA, INC.

d/b/a AQUILA NETWORKS-MPS (Electric)

and AQUILA NETWORKS-L&P (Electric)

CASE NO. ER-2005-0436

EXECUTIVE SUMMARY OF TESTIMONY	3
REVENUES.....	4
WEATHER NORMALIZATION OF USAGE	6
CUSTOMER GROWTH/LOSS ANNUALIZATION	7
LARGE CUSTOMER ANNUALIZATION	10
ELIMINATION OF UNBILLED REVENUES	11
ELIMINATION OF INTERIM ENERGY CHARGE REVENUES	12
ELIMINATION OF STEAM REVENUES.....	13
OTHER REVENUE ACCOUNT ADJUSTMENTS	13
UNCOLLECTIBLES (BAD DEBT) EXPENSE.....	13

DIRECT TESTIMONY

OF

AMANDA C. McMELLEN

AQUILA, INC.

AQUILA NETWORKS-MPS (

AQUILA NETWORKS-L&P (

CASE NO. ER-2005-0436

Q. Please state your name and business address.

A. Amanda C. McMellen, 200 Madison Street, Suite 440, Jefferson City, MO 65102.

Q. By whom are you employed and in what capacity?

A. I am a Regulatory Auditor for the Missouri Public Service Commission (Commission).

Q. Please describe your educational and employment background.

A. I graduated from DeVry Institute of Technology in June 1998 with a Bachelors of Science degree in Accounting. Before coming to work at the Commission, I worked as an accounts receivable clerk. I commenced employment with the Commission Staff (Staff) in June 1999.

Q. What has been the nature of your duties while employed by the Commission?

A. I am responsible for assisting in the audits and examinations of the books and records of utility companies operating within the state of Missouri.

Q. Have you previously filed testimony before this Commission?

1 A. Yes, please refer to Schedule 1, attached to this direct testimony, for a list of
2 the major audits on which I have assisted and filed testimony.

3 Q. Have you made an examination of the books and records of Aquila
4 Networks-MPS (MPS) and Aquila Networks-L&P (L&P), divisions of Aquila, Inc. (Aquila or
5 the Company) for purposes of this case?

6 A. Yes, in conjunction with other members of the Staff.

7 Q. Please describe your areas of responsibility in this case, Case No.
8 ER-2005-0436.

9 A. I am responsible for the areas of electric revenue and uncollectibles (bad debts)
10 expense for both MPS and L&P.

11 Q. Please describe what adjustments you are sponsoring in this case.

12 A. I am sponsoring the following Income Statement adjustments:

13 Revenues	MPS S-1.1, S-1.3, S-1.4, S-1.6
14	L&P S-1.1, S-1.3, S-1.4, S-1.8, S-8.1
15 Uncollectibles/Bad Debts	MPS S-70.1
16	L&P S-68.1

17 Q. What knowledge, skill, experience, training and education do you have related
18 to your audit assignments in this case?

19 A. My college education provided a fundamental knowledge base, which I have
20 utilized in my assigned duties at the Commission. I have attended training courses and
21 reviewed in-house training materials while at the Commission. I have continually received
22 guidance from the Senior Auditors in the Auditing Department on my assignments. I have
23 reviewed the testimony and workpapers from previously filed cases on this issue. I reviewed
24 the Company's testimony, workpapers and data request responses for this case. I have been

1 assigned to previous Aquila cases, specifically Case Nos. ER-2001-672 and ER-2004-0034.
2 In the last Aquila case I, along with other Staff members, was responsible for the revenues
3 adjustments similar to my assignment in this case. I have also been involved in the area of
4 revenues in previous cases. Finally, my previous work assignments at the Commission have
5 provided a knowledge base upon which I rely to develop my assigned areas in this rate
6 proceeding.

7 **EXECUTIVE SUMMARY OF TESTIMONY**

8 Q. Please provide a brief summary of your testimony.

9 A. My testimony covers the areas of revenues and uncollectibles. I reviewed the
10 Company's revenues and developed adjustments to annualize revenues for Aquila's MPS and
11 L&P divisions' operations separately. I developed adjustments to reflect additional growth of
12 MPS and L&P related to additional customers connecting to each of Aquila's electric
13 operating divisions. I also normalized the level of uncollectibles using actual results
14 experienced by MPS and L&P divisions.

15 Q. Please provide a general outline of your discussion of revenues.

16 A. A utility's test year revenues, like its expenses, must be annualized and
17 normalized in order to develop a cost of service that is representative of the company's
18 ongoing operations. As long as MPS and L&P have two separate sets of rate schedules with
19 different rates, the revenues of each division must be reviewed separately and any proposed
20 adjustments to annualize and normalize revenues must be calculated separately for each of
21 these entities for purposes of setting rates.

22 Generally, my discussion of revenues will be developed in five parts. My analysis of
23 revenues followed the same approach for both MPS and L&P. First, I will discuss the general

1 operations of MPS and L&P as they relate to the area of revenues. Second, I will describe the
2 types of adjustments the Staff is proposing in this case. Third, I will discuss some of the
3 specific adjustments and reference the Staff members who assisted in developing the revenue
4 analysis and adjustments. Fourth, I will describe the approach I performed regarding the
5 determination of customer levels for purposes of revenue annualizations. Lastly, I will
6 describe the specific general service adjustments for MPS and L&P by customer class.

7 Q. Please describe your testimony related to uncollectibles (bad debts).

8 A. I analyzed MPS's and L&P's bad debt expenses over the last five years to
9 determine a normalized level.

10 **REVENUES**

11 Q. Why did the Staff annualize the revenues of MPS and L&P?

12 A. The Staff annualizes revenues to determine a company's cost of service. All
13 relevant and material components to the revenue requirement must be examined for possible
14 adjustment through the annualization and normalization processes. Just as expense and rate
15 base items have to be included in the rate case at proper levels, an annual level of revenues
16 must be calculated to maintain the all important revenue – expense—rate base relationship.

17 Q. What are annualizations?

18 A. Annualizations are made to reflect a full 12-month period of revenues and
19 expenses in the development of the proper revenue requirement. Examples of this type of
20 adjustment relate to additions and disconnections of service through the test year and update
21 period. The annualization process is also commonly used to adjust expense levels such as
22 payroll increases and lease payments. Anytime an event occurs during the test year or update
23 period that causes revenue and expense levels to go up or down, an annualization is necessary.

1 The event could be a price change for salaries and wages, a change in fuel prices or a change
2 in depreciation levels for new plant additions. If new customers taking service from the
3 Company have only a partial year of usage reflected in the test year, revenues must be
4 annualized to reflect a full year's revenue for the customer. The Staff's revenue requirement
5 recommendation would be overstated if revenues don't reflect a full twelve month level of
6 current customer usage.

7 Q. What are normalizations?

8 A. Normalization adjustments are made to ensure that the revenue requirement
9 properly reflects "normal" levels of revenues and expenses. Adjustments are made to remove
10 abnormalities that do not reflect the Company's ongoing operations. Examples of
11 normalizations adjustments are those adjustments made for "normal" weather for those
12 classes of customers whose utility usage is sensitive to winter and summer temperatures.
13 Another example of normalization adjustments is when revenues or usage is high or low as a
14 result of unusual events, such as outages or down-turns in the economy. Maintenance
15 expense may be unusually high because a power plant may be out of service for an unusually
16 long period of time requiring a normalization of maintenance costs to reflect an appropriate
17 level of costs in the case.

18 Q. Please describe MPS and L&P operations.

19 A. For purposes of recording revenues and levels of customers (numbers),
20 customers are divided into three basic customer classes of residential, commercial, and
21 industrial. To further differentiate between customers, these three classes are separated based
22 on general consumption habits that are under separate tariffs; e.g., space heating, large and
23 small volume energy consumers and primary and secondary services.

1 Q. Please describe and discuss the types of adjustments the Staff developed to
2 determine annualized revenues.

3 A. The Staff's annualized and normalized revenues reflect the following
4 adjustments:

- 5 1) For normalized weather
- 6 2) For customer growth or loss
- 7 3) For customer load changes
- 8 4) For any price changes resulting from changes in rates

9 **WEATHER NORMALIZATION OF USAGE**

10 Q. Why is it appropriate to adjust revenues for normalized weather?

11 A. Temperature levels experienced during any twelve-month period may have a
12 significant impact on the Company's revenues. If the overall temperature was very hot during
13 the summer season or cold during the winter season of the test year, the Company's revenue
14 would be overstated in relation to "normal" weather. Conversely, if the overall temperature
15 was cool during the summer season and mild during the winter season of the test year, the
16 Company's revenues would be understated in relation to "normal" weather. Therefore, the
17 Staff normalized revenues for weather to eliminate the effects of abnormal temperatures
18 during the test year.

19 Q. Did the Staff apply a weather normalization analysis to both MPS and L&P?

20 A. Yes.

21 Q. What methodology did the Staff use to normalize for weather?

22 A. Staff witness Shawn Lange of the Energy Department, discusses in his direct
23 testimony the Staff's proposed adjustment for weather normalization for both MPS and L&P.

CUSTOMER GROWTH/LOSS ANNUALIZATION

Q. Why is it appropriate to adjust revenues for customer growth or loss?

A. Customer growth or loss impacts the company's revenues. It is appropriate to adjust for customer growth or loss in order to reflect the most current ongoing level of revenues in the Staff's overall determination of MPS's and L&P's cost of service.

Q. Did the Staff adjust revenues of both MPS and L&P for customer growth or loss?

A. Yes. The Staff analyzed customer growth or loss for each of the rate classes included in the weather normalization analysis of MPS for residential rate codes MO860 and MO870; for small general service rate codes MO710 & MO711 (combined) and MO740; and for large general service rate code MO720. For L&P, customer growth or loss was computed for residential rate codes MO910, MO913, MO915, MO920, MO922; for small general service rate codes MO930, MO931, MO932, MO933, MO934, MO941; and for large general service rate code MO940.

Q. Please explain your analysis related to customer growth/loss for the MPS and L&P customer classes.

A. The customer growth adjustments are comprised of two components. First, the Staff determines the change in the number of customers that occurred between the 2004 calendar test year months and update period months for this case, June 30, 2005. The second component calculates the weather normalized change in kilowatt-hour (kWh) sales and related revenues and adjusts for the change in customer levels.

Q. Why were the two Small General Service rate codes (MO710 and MO711) for MPS combined in your analysis?

1 A. These two rate codes represent small commercial customers taking service at
2 secondary voltage. MO710 includes those customers who do not have demand metering
3 equipment installed on its premise; while MO711 represents those who do. Despite this
4 distinction, each MO711 customer is billed on both the MO710 and MO711 rates and is
5 charged to the “lesser of” the two amounts. Thus, the relationship between the number of
6 customers, sales and revenues for the two rate codes is valid on a combined basis but each
7 rate code is misleading when examined independently.

8 In the past few years, Aquila has pursued a policy of installing demand meters on
9 many of the MO710 customers. As a consequence, the current data shows an overly high rate
10 of growth of MO711 customers and a decline in MO710 customers. The Staff’s methodology
11 for calculating the increase (decrease) in sales and revenues based on the rate of growth in the
12 number of customers will overstate Small General Service revenues, if computed separately.
13 Because of the potential for overstatement of revenues in these two rate classes, the Staff has
14 combined them for annualization purposes. The Company has also combined these two rate
15 classes when calculating annualized revenues.

16 Q. Please explain how the Staff annualized the level of customers.

17 A. In order to determine the annualized level of customers, the Staff issued Data
18 Request Nos. 27 (MPS) and 29 (L&P) to the Company, requesting for all rate classes
19 customer counts from the Company for each month from January 2004 through June 2005.

20 Q. How did the Staff calculate the growth or loss in kWh sales and revenues?

21 A. The Staff’s revenue annualization consists of two components. First the test
22 year kWh sales for each of the rate classes were adjusted each month for weather to arrive at a
23 normalized kWh level. The normalized kWh sales were then divided by the actual 2004

1 customer count to calculate a normalized kWh usage per customer for each month of the test
2 year ending December 31, 2004. The customer count at the end of the June 30, 2005 update
3 period was then compared to the 2004 test year monthly customer counts. The difference in
4 customer count was then multiplied by the normal use per customer to calculate the growth or
5 loss in kWh sales for each month of the test year. The total test year kWh growth/loss for
6 each rate class was then calculated.

7 Q. Please describe the second component of the revenue annualization.

8 A. The second component of the revenue annualization adjusts the total test year
9 revenues for each of the rate classes for weather to arrive at a normalized revenue level. The
10 total normalized revenue dollars were then divided by the actual customer count to calculate a
11 normalized revenue per customer bill amount for each month of the test year. The customer
12 count at the end of the June 30, 2005 update period was then compared to the test year
13 monthly customer counts. The difference in customer count was then multiplied by the
14 normal revenue dollars per customer bill to calculate the growth or loss in revenue dollars for
15 each month of the test year. The total test year revenue growth/loss for each rate class was
16 then calculated. The methodology for determining weather normalized revenue dollars is
17 discussed in the direct testimony of Staff witness Lange.

18 Q. What is the purpose of Adjustment S-1.3 (MPS and L&P)?

19 A. This adjustment increases test period kWh sales and revenues to reflect the
20 customers added to or removed from the MPS and L&P residential and small commercial rate
21 schedules through June 30, 2005. Each new customer is assumed to increase test period sales
22 at the average normalized usage per customer value from the calendar 2004 test year period.

LARGE CUSTOMER ANNUALIZATION

Q. Are the test year kWh sales for the large commercial and industrial classes typically adjusted to reflect normal weather?

A. No. The loads for large commercial and/or industrial customers are not considered weather sensitive and, therefore, no attempt is made to adjust for weather impacts.

Q. How does the Staff typically annualize large volume customer rate classes?

A. The Staff annualizes large volume customer rate classes based on a review of monthly consumption for each customer during the test year and update period.

Large customers require detailed study rather than generalized (average usage) adjustment for several reasons. First, when MPS and/or L&P add a new large customer, that customer's usage is not reasonably estimated by simple reference to average usage levels for all other industrial customers. Second, MPS makes available to qualifying new customers the rate benefits of its Economic Development Rider (EDR), which causes average-revenue-per-kWh statistics to be imprecise in predicting ongoing revenue levels for new large customers. Finally, new large customers may initially have erratic load levels until stable patterns of demand are established. Specific analysis of individual large customers is required to deal with these concerns.

Q. What process does the Staff use in its analysis of large volume customers?

A. The Staff's process is to analyze changes in specific individual customer usage. These changes occur because of new customers coming on to, and existing customers leaving, the electric system. In addition, the Company provides information to the Staff regarding expected changes in customer loads due to expansion projects, downsizing or any other change known to affect a specific customer's usage. The Staff also examines other

1 sources of customer growth for large customers, such as annual reports, Securities and
2 Exchange Commission filings, business plans, budgets and news media (newspaper articles
3 and other news outlets). The Staff annualizes these changes to reflect their impact for a full
4 year.

5 Q. Please explain Adjustment S-1.4 related to large volume customers for MPS
6 and L&P.

7 A. Detailed monthly billing information was requested by the Staff from MPS and
8 L&P (Data Request Nos. 28 and 363 for MPS and Nos. 30 and 364 for L&P) for all large
9 volume customer rate classes since January 2004. MPS and L&P experienced changes in
10 customer loads for several large customers as of June 30, 2005, which is the end of the update
11 period in this case. In addition, consistency with the Staff's June 30, 2005 update for fuel
12 costs, rate base and other test year annualizations requires that customer and sales levels be
13 annualized at the same point in time, at the end of the update period.

14 **ELIMINATION OF UNBILLED REVENUES**

15 Q. What are unbilled revenues and why is it appropriate to remove the effects of
16 unbilled revenues in a rate case?

17 A. Unbilled revenues represent accounting estimates booked by the Company at
18 the end of each month to account for the kWh sales to customers through the last day of the
19 month, even though meters are not read on the last day to render actual billings for such sales.
20 The cycle billing process employed by MPS and L&P contributes to a continuous change in
21 the amount of sales that the two divisions have recognized at any given month-end that have
22 not been billed to customers. In the test year, the net change in unbilled kWh sales and
23 related revenue from month-end December 2003 to month-end December 2004 is recorded as

1 calendar 2004 revenue on the books. Elimination of these accrued estimated revenues allows
2 the Staff to analyze test year revenues based upon actual billed data.

3 Q. Was unbilled revenue eliminated in MPS's and L&P's last rate case, No.
4 ER-2004-0034?

5 A. Yes. The adjustments I propose in this case are comparable to what the Staff
6 proposed in the last MPS and L&P rate case.

7 Q. What is the source for the eliminated unbilled revenue amount in the
8 Adjustment S-1.1 (MPS and L&P) that you sponsor?

9 A. The source for the eliminated unbilled revenues for MPS and L&P is the actual
10 per books amount of calendar year 2004 unbilled revenues, as reflected in the Company's
11 general ledger. The Staff's and Company's adjustment for unbilled revenues in this case, are
12 the same.

13 **ELIMINATION OF INTERIM ENERGY CHARGE REVENUES**

14 Q. What is the Interim Energy Charge (IEC) and why is it appropriate to remove
15 the effects of IEC revenues in a rate case?

16 A. The IEC represents a mechanism intended to address fuel costs volatility in the
17 last case. Therefore, the IEC revenues reflected in the 2004 test year should be eliminated
18 because they are not an ongoing revenue source for the MPS and L&P electric operations.

19 Q. What is the source for the eliminated IEC revenue amounts in Adjustment
20 S-1.6 (MPS) and Adjustment S-1.8 (L&P) that you sponsor?

21 A. The source for the eliminated IEC revenues for MPS and L&P is the actual per
22 books amount of calendar year 2004 IEC revenues, as reflected in the Company's general
23 ledger. The Staff's and Company's adjustment for IEC revenues in this case, are the same.

1 **ELIMINATION OF STEAM REVENUES**

2 Q. Why is it appropriate to remove steam revenues from L&P's books in this rate
3 case?

4 A. L&P is not seeking a change in its steam heating rates in this case. The
5 amount for steam revenues is included within total electric revenues on L&P's books for
6 reporting purposes only. Therefore, the steam revenues reflected in the 2004 test year should
7 be eliminated because they are not a revenue source for the L&P electric operations.

8 Q. What is the source for the eliminated steam revenue amounts in Adjustment
9 S-8.1 (L&P) which you sponsor?

10 A. The source for the eliminated steam revenues for L&P is the actual per books
11 amount of calendar year 2004 steam revenues, as reflected in the Company's general ledger.

12 **OTHER REVENUE ACCOUNT ADJUSTMENTS**

13 Q. Has the Staff reviewed the amounts booked in the Other Revenues accounts
14 associated with MPS and L&P?

15 A. Yes, the Staff has completed a review of the amounts booked in the Other
16 Revenues accounts of both MPS and L&P. These revenues include forfeited discounts, rents
17 from property and other revenues. The analysis of the Other Revenues included a review of
18 revenues over the last nine years and through the end of the update period. The test year
19 Other Revenues amounts are representative of an annualized level of revenue for each
20 respective category and, therefore, don't require adjustment.

21 **UNCOLLECTIBLES (BAD DEBT) EXPENSE**

22 Q. What is the purpose of Adjustments S-70.1 and S-68.1?

1 A. Adjustment S-70.1 and Adjustment S-68.1 normalize bad debt expense for the
2 MPS and L&P divisions, respectively.

3 Q. How was a normal level of bad debt expense calculated for MPS?

4 A. As stated in the revenue section of my testimony, I have determined annualized
5 revenues for MPS for the update period ending June 30, 2005. I analyzed the ratio of net bad
6 debt write-offs to booked revenue from 1993-2005. I arrived at a normal level of bad debt
7 expense by multiplying annualized revenue by a three-year average write-off ratio for the
8 years July 2002 through June 2005. The three-year average was developed using the
9 weighting of the actual bad debts write-offs to revenues over the same three-year period. The
10 use of the actual write-offs of a given month to the corresponding month of revenues, in
11 effect, "weights" each month's write-offs with the revenues.

12 Q. Why did Staff use a three-year weighted average net write-off ratio in its
13 calculation of bad debt expense?

14 A. The Staff used the three-year weighted average for bad debts to update this
15 item for the most current information available. Taking an updated three-year weighted
16 average has normalized the fluctuation in the level of bad debt write-offs over the last three
17 years.

18 Q. How was a normal level of bad debt expense calculated for L&P?

19 A. The analysis used for L&P is consistent with the analysis used for MPS. A
20 three-year weighted average was used to normalize the fluctuation in the level of bad debt
21 write-offs.

22 Q. Does this conclude your direct testimony?

23 A. Yes, it does.

SUMMARY OF RATE CASE TESTIMONY FILED

Amanda C. McMellen

<u>COMPANY</u>	<u>CASE NO.</u>	<u>ISSUES</u>
Osage Water Company	SR-2000-556	Plant in Service Depreciation Reserve Depreciation Expense Operation & Maintenance Expense
	WR-2000-557	Plant in Service Depreciation Reserve Depreciation Expense Operation & Maintenance Expense
Empire District Electric Company	ER-2001-299	Plant in Service Depreciation Reserve Depreciation Expense Cash Working Capital Other Working Capital Rate Case Expense PSC Assessment Advertising Dues, Donations & Contributions
UtiliCorp United, Inc./ d/b/a Missouri Public Service	ER-2001-672	Insurance Injuries and Damages Property Taxes Lobbying Outside Services Maintenance SJLP Related Expenses
BPS Telephone Company	TC-2002-1076	Accounting Schedules Separation Factors Plant in Service Depreciation Reserve Revenues Payroll Payroll Related Benefits Other Expenses

SUMMARY OF RATE CASE TESTIMONY FILED

Amanda C. McMellen

<u>COMPANY</u>	<u>CASE NO.</u>	<u>ISSUES</u>
Aquila, Inc. d/b/a Aquila Networks-MPS & Aquila Networks-L&P	ER-2004-0034	Revenue Annualizations Uncollectibles
Fidelity Telephone Company	IR-2004-0272	Revenue Revenue Related Expenses