

Exhibit No.:  
Issues: Resource Planning  
Witness: Lena M. Mantle  
Sponsoring Party: MO PSC Staff  
Type of Exhibit: Surrebuttal Testimony  
Case No.: ER-2007-0004  
Date Testimony Prepared: March 20, 2007

**MISSOURI PUBLIC SERVICE COMMISSION**

**UTILITY OPERATIONS DIVISION**

**SURREBUTTAL TESTIMONY**

**OF**

**LENA M. MANTLE**

**AQUILA, INC. D/B/A AQUILA NETWORKS-MPS  
AND AQUILA NETWORKS-L&P**

**CASE NO. ER-2007-0004**

**Jefferson City, Missouri  
March 2007**

**\*\*Denotes Highly Confidential Information\*\***

**FILED**

**MAY 2 2007**

**Missouri Public  
Service Commission**

**NP**

*Staff* Exhibit No. 218  
Case No(s). ER-2007-0004  
Date 4-12-07 Rptr KF

**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 tariffs increasing )  
electric rates for the service provided to )  
customers in the Aquila Networks-MPS )  
and Aquila Networks-L&P service areas. )

Case No. ER-2007-0004

**AFFIDAVIT OF LENA M. MANTLE**

STATE OF MISSOURI     )  
                                  ) ss  
COUNTY OF COLE     )

Lena M. Mantle, of lawful age, on her oath states: that she has participated in the preparation of the following Surrebuttal Testimony in question and answer form, consisting of 13 pages of Surrebuttal Testimony to be presented in the above case, that the answers in the following Surrebuttal Testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true to the best of her knowledge and belief.

  
Lena M. Mantle

Subscribed and sworn to before me this 19<sup>th</sup> day of March, 2007.



SUSAN L. SUNDERMEYER  
My Commission Expires  
September 21, 2010  
Callaway County  
Commission #08942086

  
Notary Public

My commission expires 9-21-10

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**AQUILA, INC. D/B/A AQUILA NETWORKS-MPS  
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**CASE NO. ER-2007-0004**

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**SURREBUTTAL TESTIMONY**

**OF**

**LENA M. MANTLE**

**AQUILA, INC. D/B/A AQUILA NETWORKS-MPS  
AND AQUILA NETWORKS-L&P**

**CASE NO. ER-2007-0004**

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Q. Please state your name and business address.

A. My name is Lena M. Mantle and my business address is Missouri Public Service Commission, P. O. Box 360, Jefferson City, Missouri 65102.

Q. Have you prefiled testimony in this case?

A. Yes. I prefiled direct testimony.

**Executive Summary**

Q. Please summarize your testimony.

A. In my testimony I respond to three Aquila witnesses: H. Davis Rooney, Dennis R. Williams and Robert L. Davis.

In his rebuttal testimony, Mr. Rooney disagrees with the capacity that Staff used in determining fuel expense and revenue requirement for Aquila Networks – MPS (MPS). In this testimony, I (1) explain why Public Service Commission Staff's (Staff's) preferred resource plan identified in my direct testimony in this case and in Aquila, Inc.'s (Aquila) previous rate case, Case No. ER-2005-0436, is still relevant; (2) state Staff's position that long-term firm Purchased Power Agreements should be included in the resource planning process; and (3) clarify Staff's position on the status of Aquila's South Harper Facility.

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1           In his rebuttal testimony, Mr. Davis provides the results of analysis conducted by  
2     the firm that he works for, R.W. Beck, Inc. (R.W. Beck), regarding an "optimum"  
3     resource plan for Aquila. Regarding Mr. Davis' conclusions regarding the R.W. Beck  
4     study, Aquila witness Dennis R. Williams states in his rebuttal testimony that:

5           His findings were sufficient for me to conclude that any perception of poor  
6           resource planning on the part of Aquila is unfounded, and that both prior  
7           and current resource planning and decision making processes are  
8           appropriate and effective. (pg. 5, ln. 4-6)  
9

10          The R.W. Beck optimum plan, based only on the lowest cost to serve, should not be  
11         confused with a preferred resource plan. A good resource plan will take into account  
12         factors other than just the lowest cost plan. Mr. Davis concludes in his testimony that  
13         both Aquila's 2005 resource plan and its long-term plan are consistent with R.W. Beck's  
14         optimum plan. I do not agree.

15         **Preferred Plan**

16           Q. Briefly, what capacity did Staff include in its case?

17           A. Staff included all of Aquila's current capacity except for the three (3) South  
18         Harper combustion turbines (CTs). To ensure that there was enough capacity to meet the  
19         needs of Aquila's customers, Staff added five (5) 105 MW generic CTs.

20           Q. What capacity did Aquila include in its case?

21           A. I could not find it in Aquila's testimony, but Aquila's workpapers show that  
22         to estimate fuel and purchased power expense, Aquila modeled its current capacity,  
23         including the South Harper CTs plus three (3) additional 105 MW generic CTs.

24           Q. What was Aquila's preferred plan in 2004 for replacing the power it was  
25         getting from the Aries plant when Aquila's contract with Calpine expired in 2005?

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1           A. Aquila's preferred plan was to build three combustion turbines (CTs) and to  
2 enter into long-term PPAs for another 200 MW.

3           Q. Did Aquila model its preferred plan in determining its fuel and purchased  
4 power expense?

5           A. No, it did not.

6           Q. What does Staff believe should have been Aquila's preferred plan?

7           A. As stated in my direct testimony in Aquila's last rate case (Case No. ER-  
8 2005-0436) and my direct testimony in this case, Staff believes that Aquila's preferred  
9 plan should have been its least cost plan, which was to build five 105 MW CTs.

10          Q. Did Staff propose to Aquila that it should install 525 MW at South Harper as  
11 stated by Aquila witness H. Davis Rooney (Rooney rebuttal pg. 8, ln.3-4)?

12          A. Mr. Rooney may have misunderstood the statement in my direct testimony  
13 that "Staff modeled a site built of six (6) CTs, putting only five (5) on it." Staff did not  
14 specify where the five CTs should be placed. Resource planning does not pick a site on  
15 which a utility should build any more than Aquila's preferred plan proposed that three  
16 CTs should be built at South Harper. The resource planning process, given accurate cost  
17 estimates, simply states generically how the resource needs of a utility should be met.  
18 Once a preferred plan is chosen, then it is up to the utility to determine the specifics  
19 regarding the implementation of the plan.

20          **Purchased Power Agreements**

21          Q. Did Aquila fully implement its 2004 preferred plan?

22          A. No it did not. It did build three (3) CTs at South Harper and entered into a 75  
23 MW long-term PPA for its MPS division. However, its preferred plan included 200 MW

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1 of long-term PPAs. Aquila has not been able to acquire a contract for the remaining 125  
2 MW that was included in its preferred plan for MPS. Instead, Aquila has met MPS'  
3 capacity needs through a series of short-term PPAs. This has put Aquila in the position  
4 of not knowing how its capacity needs will be met from year-to-year.

5 Q. Mr. Rooney states in his rebuttal testimony that "Staff continues to assert that  
6 an alternative plan in the pre-stipulation analysis of January 2004 should be the yard-stick  
7 of prudence for Aquila." (pg. 9, ln. 15-16) Is this a correct representation of Staff's  
8 position?

9 A. Staff does continue to assert that Aquila should have built five 105 MW CTs  
10 just as it did in the last Aquila electric rate case (Case No.ER-2005-0436). In my direct  
11 testimony in that case, I stated the following:

12 A prudence review entails looking at the factors relevant to a decision as  
13 they were at the time the decision was made. Therefore, I must go back to  
14 the time when Aquila made the recommendation and consider the gas  
15 prices and gas price projections that existed at that point in time, not the  
16 current time and current gas prices. (pg. 7, ln. 5-8)

17  
18 I still believe in that philosophy. To change now would result in Aquila's ratepayers not  
19 seeing the benefits of building the CTs. I have attached, as Schedule 1, a complete copy  
20 of my direct testimony in Case No. ER-2005-0436 which describes the Staff's rationale  
21 for choosing the five 105 MW CT resource plan as more prudent than Aquila's 2004  
22 preferred resource plan.

23 Q. Did Staff include any PPAs in its analysis?

24 A. Yes. Mr. Rooney is correct in his rebuttal testimony when he states that Staff  
25 included in its analysis the 75 MW long-term PPA that Aquila entered into for base load  
26 power. (pg.10, ln. 10-12) Staff chose to include this PPA because it has been the position

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1 of the Staff that Aquila needs more base load capacity and energy, and this long-term  
2 PPA met this need. In addition, Aquila needs this 75 MW PPA to meet its capacity and  
3 energy requirements.

4 Q. What would be the impact if Staff changed its position in this case?

5 A. Aquila has enjoyed the increase in rate base from these five (5) 105 MW CTs  
6 since the last case. For ratepayers to see the full benefits of these CTs, they need to  
7 remain in Aquila's rate base for the life of the plant. If Staff's position changes to  
8 Aquila's position, Aquila's ratepayers do not get the monetary benefits of the CTs but  
9 Aquila had the benefit of the CTs being in the rate base since the last rate case.

10 Q. In your direct testimony, you state that Staff's view is that Aquila should own  
11 its generation assets. (pg. 7, ln. 16-18). Does that mean that Staff is opposed to any  
12 PPAs?

13 A. No, Staff is not opposed to all PPAs. As required in the Commission's  
14 Chapter 22 Electric Utility Resource Planning (Chapter 22), Staff believes that the  
15 resource planning process should include a review of long-term PPAs, such as the 75  
16 MW PPA that Aquila entered into. What Staff is opposed to is a series of short-term  
17 PPAs, which is how Aquila has met its growing needs since 2005. While short-term  
18 PPAs may be most cost effective for the ratepayer in the short run, they are not cost  
19 effective in the long run. Short-term PPAs expose both Aquila and its ratepayers to the  
20 volatility of the market, and expose both to a risk on an annual basis that Aquila may not  
21 have the capacity and energy that it needs to meet its load.

22 Aquila is proposing in this case (see Aquila witness Williams' direct testimony)  
23 what is referred to as a total pass through Fuel Adjustment Clause (FAC) that includes



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1 purchased power. With that FAC Aquila would have very little risk if it meets its  
2 capacity needs with short-term PPAs, since the short-term PPAs would be included in the  
3 FAC. With Aquila's FAC, only its customers are assuming the risk of volatility, since  
4 the FAC would include the short-term PPAs.

5 **Status of South Harper**

6 Q. Has South Harper passed all established criteria for being considered in-  
7 service and used and useful as stated by Mr. Rooney in his rebuttal testimony (pg. 8, ln.  
8 9-11)?

9 A. It has passed all engineering criteria. However, Staff determined that South  
10 Harper should not be declared in-service for ratemaking purposes. As stated in the direct  
11 testimony of Staff witness Leon Bender in Case No. ER-2005-0436:

12 Q. Does having met the Staff's in-service criteria mean that the South  
13 Harper Station should be declared in service for rate making purposes?

14 A. No, not at this time. The Staff's in-service criteria, as explained  
15 earlier, is set of criteria to establish that the plant is fully operational as far  
16 as the physical aspects of the plant is concerned. Although the South  
17 Harper Station meets the Staff's in-service criteria at the time of this  
18 filing, there remains a chance that due to pending litigation by other  
19 parties, that Aquila may have to remove the plant from service. Staff  
20 cannot make recommendation that the plant be in rate base until after the  
21 results of the legal proceedings are final. (pg. 8, ln. 14-22)

22  
23 Since there still is pending litigation regarding South Harper, Staff still does not  
24 recommend that the plant be included in rate base for rate making purposes at this time.

25 Q. How does that reconcile with Mr. Rooney's quote from the ER-2005-0436  
26 Non-unanimous Stipulation And Agreement (S&A) regarding Generating Facility Value?

27 A. Mr. Rooney quoted the following part of paragraph 6 of the S&A:

28 ***Generating Facility Value***

29 6. The rates agreed to herein support a rate base value for a  
30 315 MW generating facility of approximately \$140 million for Aquila.

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1 This amount is subject to adjustment as a result of the true-up of Aquila's  
2 South Harper Generating Station.

3  
4 Mr. Rooney interprets this section of the S&A to mean that the parties agreed that  
5 the South Harper Generating Station was placed in rate base. However, it actually states  
6 that a "315 MW generating facility," not the South Harper Generating Station, was  
7 placed into rate base.

8 Q. Does Mr. Rooney use any other parts of the S&A to support his assumption  
9 that South Harper was placed into rate base?

10 A. Yes he does. Mr. Rooney also quotes from paragraph 13 of the S&A as  
11 follows:

12 ***South Harper and Prospective Generating Units***

13 13. The South Harper Generating Station commercial operation  
14 dates are as follows: Unit 1-July 12, 2005; Unit 2-July 1, 2005 and Unit 3-  
15 June 30, 2005. For purposes of this case and future cases, test power,  
16 depreciation and allowance for funds used during construction will be  
17 calculated based on the commercial operation dates for South Harper  
18 Units 1, 2 and 3.

19 The commercial operation date for prospective generating units  
20 will be the date the unit is first available for dispatch by the system  
21 operator. The actual commercial operation date for prospective generating  
22 units will be subject to review at the time the units are first sought to be  
23 included in rates. The actual commercial operation date for prospective  
24 generating units will be brought to the Commission for resolution in the  
25 event of an unresolved dispute.

26  
27 Q. Isn't a plant in rate base when a commercial operation date is specified?

28 A. Not necessarily. As paragraph 13 of the S&A goes on to explain:

29 The commercial operation date of a generating unit is not  
30 necessarily the date a unit meets the fully operational and used for service  
31 requirement of Section 393.135 RSMo (Proposition 1). The commercial  
32 operation date for a prospective generating unit can occur before the date a  
33 unit meets the fully operational and used for service requirement of  
34 Proposition 1. The commercial operation date for a prospective  
35 generating unit will be no later than the date the unit meets the fully  
36 operational and used for service requirement of Proposition 1.

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1       The commercial operation date is set as the point in time that the plant ceases to  
2 be under construction (i.e., Allowable Funds Used During Construction is no longer  
3 calculated) and the plant begins to depreciate in value. A comparable example would be  
4 the point in time that you drive a new car off of the car lot. When you drive it off of the  
5 lot, it starts depreciating in value. For a generating plant, depreciation begins at the  
6 commercial operation date.

7       Q. Why is it important to differentiate the difference between a commercial  
8 operation date and the date that a plant is considered fully operational and used for  
9 service (i.e., in-service)?

10       A. Missouri statute, passed by voter initiative, states that a plant can only be  
11 placed into rate base when it is determined to be fully operational and used for service.  
12 Specifically the statute, Section 393.135, RSMo. 2000, reads:

13       Any charge made or demanded by an electrical corporation for service, or  
14 in connection therewith, which is based on the costs of construction in  
15 progress upon any existing or new facility of the electrical corporation, or  
16 any other cost associated with owning, operating, maintaining, or  
17 financing any property before it is fully operational and used for service, is  
18 unjust and unreasonable, and is prohibited.

19  
20       The commercial operation date is important when the plant is not immediately  
21 placed into rate base (i.e., it is operational before it is fully used for service). It is the date  
22 that determines when the plant begins depreciating so that the correct value can be placed  
23 in rate base when the date the plant is fully useful (i.e., in service) is established.

24       Q. Does either one of the above quotes from the S&A from Case No. ER-2005-  
25 0436 state that the parties agree that South Harper is in rate base?

26       A. No they do not.

27       Q. Did the Commission include South Harper in rate base in the last case?

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1           A. No. The Commission specifically stated in its Report and Order in Case No.  
2 ER-2005-0436:

3                     ... it does not authorize Aquila to recover those costs in this case,  
4           **and it does not place the South Harper Generating Station into the**  
5           **company's rate base.** It also does not authorize Aquila to recover any  
6           costs associated with dismantling that facility, if that becomes necessary.  
7           (Commission Order Case ER-2005-0436, page 4; emphasis added)  
8

9           **"Optimal" vs. "Preferred" Resource Plan**

10           Q. Have you reviewed the rebuttal testimony of Aquila witness Robert L.  
11 Davis?

12           A. Yes I have. Mr. Davis conducted a reasonableness check on Aquila's 2005  
13 Resource Plan by developing what Mr. Davis calls an "Optimal" Plan. The Optimal Plan  
14 was the result of analysis conducted by Mr. Davis' firm, R. W. Beck, to determine a  
15 generation portfolio that would result in the lowest total incremental revenue  
16 requirements in each modeled year. (Davis rebuttal, Schedule RLD-2, page 4 of 16)  
17 Then R.W. Beck performed analyses to compare Aquila's existing mix of capacity to the  
18 optimal plan and to compare the modeled optimum expansion plan to planned resource  
19 additions identified in Aquila's 2005 Integrated Resource Plan. (Davis rebuttal, Schedule  
20 RLD-2, page 2 of 16)

21           Q. What is your opinion of the analysis presented in Mr. Davis' testimony?

22           A. It is an interesting analysis. In many ways it supports what Staff has been  
23 telling Aquila regarding resource planning the last several years: "A well-balanced, least  
24 cost power supply portfolio properly blends high fixed cost, low variable cost, base-load  
25 assets with lower fixed cost intermediate and peaking assets (which typically depend on

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1 higher-cost, more volatile priced fuels) to derive the lowest total power supply cost for  
2 the utility and its customers.” (Davis rebuttal, pg. 3, ln. 14-17).

3 However, R.W. Beck’s analysis needs to be taken for what it is—a sanity check  
4 of Aquila’s current resource mix. While Mr. Davis did not represent that R.W. Beck’s  
5 analysis results should be considered as a preferred resource plan, I would like to  
6 summarize the difference between Mr. Davis’ optimal plan and a preferred plan.

7 Q. Should the preferred plan be an optimal plan?

8 A. Yes. When Mr. Davis refers to a “theoretically optimum power supply mix”  
9 in his rebuttal testimony (pg. 7, ln. 7), he is referring to a power supply mix that meets  
10 Aquila’s needs at the lowest cost mixture of the resources that were put into the model.  
11 (pg. 7, ln. 14-15). While low cost is important in choosing a preferred plan, other  
12 objectives need to be considered.

13 Q. What type of objectives?

14 A. Chapter 22 lists three (3) other considerations that, at a minimum, should be  
15 considered in choosing a preferred plan.

16 These considerations shall include, but are not necessarily limited to,  
17 mitigation of-

- 18 1. Risks associated with critical uncertain factors that will affect  
19 the actual costs associated with alternative resource plans;  
20 2. Risks associated with new or more stringent environmental  
21 laws or regulations that may be imposed at some point within the  
22 planning horizon; and  
23 3. Rate increases associated with alternative resource plans.  
24 (4 CSR 240-22-010(2)(C)1.-3.)  
25

26 The first consideration would include looking at alternative plans in light of, at a  
27 minimum, changes in the load forecast, fuel costs and changes in the cost to build  
28 generation. The second consideration includes looking at the various alternative plans in

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1 light of possible changes in environmental legislation. The third consideration asks the  
2 utility to look at the various levels of rate increases in different alternative plans. The  
3 preferred plan should be a robust plan that weighs at least these considerations and  
4 balances all considerations.

5 Q. Would you provide an example of how these considerations could apply to  
6 different plans?

7 A. Installing three (3) CTs and meeting the rest of a utility's needs with short-  
8 term PPAs may minimize rate increases in the short-run, but this resource mix exposes  
9 the utility and its customers to the risk of the short-term capacity market. Installing five  
10 (5) CTs to meet capacity requirements increases rates in the short run but results in  
11 stability in the availability of capacity. In the case of Aquila's 2004 resource analysis,  
12 the five (5) CTs both provided capacity in the long-term and resulted in the lowest cost.

13 Q. What was the result of R.W. Beck's analysis?

14 A. Mr. Davis concludes that "both the current and planned power supply  
15 resources of the Electric Systems reasonably align with a theoretically optimum power  
16 supply mix." (Davis rebuttal, pg. 6, ln. 4-6)

17 Q. Do you agree with Mr. Davis?

18 A. Not entirely. I am not aware of anything improper in R.W. Beck's analysis.

19 Mr. Davis state the following with regard to Aquila's power supply mix in 2005:

20 The analysis shows that if Aquila had perfect foresight and could have  
21 installed all new resources to satisfy its entire supply portfolio in 2005 that  
22 more base-load and intermediate capacity and less peaking capacity would  
23 be desired as compared to the existing supply portfolio. (Davis rebuttal,  
24 pg. 6, ln. 15-18)

25  
26 This is consistent with what Staff was telling Aquila at the time.

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1           However, I do not agree with the following conclusion of Mr. Davis:

2           The relatively small difference between the existing and  
3           hypothetical 2005 power supply portfolios indicate that the Aquila  
4           portfolio that existed is highly consistent with a theoretically optimum  
5           power supply mix. (Davis rebuttal, pg. 7, ln. 5-7)

6  
7           Q. Why not?

8           A. My understanding is that Mr. Davis draws this conclusion because capacity  
9           can be added to a power supply portfolio in discrete increments. (Davis rebuttal, pg. 6,  
10          ln. 18 – pg. 7, ln. 7) In other words, the plans were consistent because capacity can only  
11          be purchased in “chunks.” It is correct that it would be highly unlikely that Aquila would  
12          have the exact increments necessary to be consistent with the lowest cost plan, but, again,  
13          Mr. Davis is considering only the lowest cost to serve Aquila. He did not consider that if  
14          Aquila had a larger amount of base or intermediate capacity than his optimum plan,  
15          Aquila would have had more fuel price stability and any excess low-cost energy could  
16          have sold on the energy market to off-set the increased fixed costs. Therefore, while Mr.  
17          Davis may consider the plans to be consistent, I consider them inconsistent with a  
18          preferred plan that minimizes price volatility and rates in the long run.

19          Q. What was Mr. Davis’ conclusion about Aquila’s long-term resource plan?

20          A. Mr. Davis considered his optimum plan to be consistent with Aquila’s 2005  
21          preferred resource plan in the time period 2010 through 2015.

22          Q. Do you agree?

23          A. No, I do not believe that Mr. Davis’ long-term optimum plan is consistent  
24          with Aquila’s 2005 preferred plan. Schedule 2 shows a plot of the resource additions in  
25          Aquila’s 2005 preferred resource plan and another that shows the R.W. Beck optimum  
26          plan. There are several differences in the two plans. Perhaps the most obvious is the

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1 proportion of additional base load plants to the capacity need that Aquila would get from  
2 the market. Aquila's plan shows 150 MW of base additions in 2010 (Aquila's portion of  
3 Iatan 2) and an additional 150 to be added in 2014 for a total of 300 MW of base load  
4 addition. R.W. Beck's plan starts with 200 MW of base load additions in 2010 and  
5 increases to 600 MW in 2015. I do not believe these two plans are "consistent." Aquila  
6 has not shown Staff a plan that would add this level of base capacity to its system in  
7 2015.

8 Q. Do you disagree with the R.W. Beck's analysis?

9 A. No, I do not disagree with the analysis. It is an interesting exercise to check  
10 the reasonableness of Aquila's resource plan. However, I disagree with the conclusions  
11 by Mr. Davis that of R.W. Beck's optimal plan and Aquila's preferred resource plan are  
12 consistent.

13 Q. Do you also disagree with Mr. Williams' conclusion that Mr. Davis' "findings  
14 were sufficient for me to conclude that any perception of poor resource planning on the  
15 part of Aquila is unfounded" (Williams rebuttal, pg. 5, ln. 4-5)?

16 A. Yes I disagree with Mr. Williams' conclusion. Mr. Davis was very careful in  
17 his testimony to state that the R.W. Beck plans were optimal in the aspect of lowest cost.  
18 Mr. Davis did not say that the study showed that Aquila had done a good job of resource  
19 planning.

20 Q. Does this conclude your surrebuttal testimony?

21 A. Yes, it does.



Exhibit No.:

Issues: Resource Planning

Witness: Lena M. Mantle

Sponsoring Party: MO PSC Staff

Type of Exhibit: Direct Testimony

Case No.: ER-2005-0436

Date Testimony Prepared: October 14, 2005

**MISSOURI PUBLIC SERVICE COMMISSION**

**UTILITY OPERATIONS DIVISION**

**DIRECT TESTIMONY**

**OF**

**LENA M. MANTLE**

**AQUILA, INC.  
D/B/A AQUILA NETWORKS – MPS  
And AQUILA NETWORKS – L&P**

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

**Jefferson City, Missouri  
October 2005**

**\*\*Denotes Highly Confidential Information\*\***

**NP**

**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

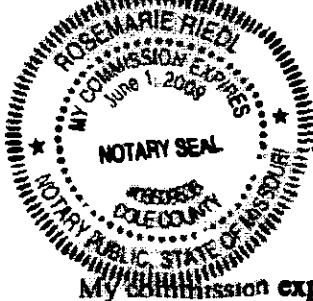
**AFFIDAVIT OF LENA M. MANTLE**

STATE OF MISSOURI     )  
                                      ) ss  
COUNTY OF COLE        )

Lena M. Mantle, 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 7 pages of Direct Testimony 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 to the best of her knowledge and belief.

  
Lena M. Mantle

Subscribed and sworn to before me this 13<sup>th</sup> day of October, 2005.



  
Notary Public

My commission expires June 1, 2009

**NP**

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**DIRECT TESTIMONY**

**OF**

**LENA M. MANTLE**

**AQUILA, INC.  
D/B/A AQUILA NETWORKS – MPS  
AND AQUILA NETWORKS – L&P**

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

Q. Please state your name and business address.

A. My name is Lena M. Mantle and my business address is Missouri Public Service Commission, P. O. Box 360, Jefferson City, Missouri 65102.

Q. What is your present position with the Missouri Public Service Commission (Commission)?

A. I am the Manager of the Energy Department, Utility Operations Division.

Q. Would you please review your educational background and work experience?

A. I received a Bachelor of Science Degree in Industrial Engineering from the University of Missouri, at Columbia, in May 1983. I joined the Commission Staff (Staff) in August 1983. I became the Supervisor of the Engineering Section of the Energy Department in August, 2001. In July 2005, I was named the Manager of the Energy Department. I am a registered Professional Engineer in the State of Missouri.

My work here at the Commission has included the review of resource plans of investor owned electric utilities since 1984. I was actively involved in the writing of the Commission's Chapter 22, Electric Resource Planning rules. I participated in the review

Director Testimony of  
Lena M. Mantle

1 of all of the utility filings under that rule. Since the Commission issued a waiver to the  
2 electric utilities from filing under that rule in 1999, I have been present at all but one of  
3 the utilities' semi-annual resource plan update meetings with Staff and Office of Public  
4 Counsel.

5 Q. Have you previously filed testimony before this Commission?

6 A. Yes, I have. Please see Schedule 1 attached to this testimony for a list of  
7 cases in which I have previously filed testimony.

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

9 A. The purpose of my testimony is to provide to the Commission a summary  
10 of the resource planning review process and the feedback that the Staff has supplied  
11 Aquila in the last three years. I am also presenting Staff's position regarding how Aquila  
12 should have replaced the power it was receiving from the Aries capacity contract.

13 **Executive Summary**

14 Q. Would you please summarize your testimony?

15 A. It is my testimony that, given the information from the resource planning  
16 process that was available at the time Aquila made its decision regarding the replacement  
17 of power it was obtaining through the Aries capacity contract, it is the position of the  
18 Staff that Aquila should have built five combustion turbines (CTs). Therefore, the Staff  
19 included five CTs to satisfy Aquila's capacity needs in this rate case to approximate a  
20 self-build option for Aquila Networks - MPS (MPS). Staff witness David W. Elliott is  
21 using five generic CTs in addition to MPS's current capacity in rate base in the  
22 production cost model to estimate variable fuel and purchase power costs and Staff  
23 witness Robert Schallenberg is sponsoring adjustments to the capacity costs to this effect.

**Testimony**

Q. What capacity does Aquila currently have instead of the five generic CTs in Staff's case?

A. Aquila has included the three combustion turbines at the South Harper site. Due to legal issues, it is not clear that these CTs will remain at this site. Aquila is currently searching for purchase power contracts, long or short-term, to fulfill the rest of its capacity and energy needs.

Q. What was the resource planning review process when Aquila made its decision to build the only three CTs and rely on purchase power contracts for the rest of its capacity and energy needs?

A. At the time, Aquila was meeting with the Staff and Office of Public Counsel twice a year to update us on its resource needs. The only information given to Staff at these meetings was the presentation material. Staff would provide feedback based on the presentation materials and statements made during the presentations. The Staff did not do a formal or informal review of the resource plan updates presented at the meetings. Sometimes, if the Staff felt that it was warranted, it would respond after the meeting with a letter expressing concerns.

This process is changing as the waiver is ending in December of this year. Aquila submitted a resource plan to Staff in April 2005 and is scheduled to file its resource plan in February 2007. It has made a verbal commitment to Staff to continue the semi-annual meetings until that time.

Q. Why does Aquila need capacity?

Director Testimony of  
Lena M. Mantle

1           A.     Aquila needs capacity to replace the purchase power agreement (PPA) that  
2 it had for the Aries power plant to supply up to 500 megawatts (MW) of capacity in the  
3 summer and 320 MW of capacity in the winter. This PPA expired May 31, 2005. MPS  
4 satisfied this deficit in 2005 with the three CTs at South Harper and a short-term capacity  
5 purchase of 325 MW from a facility owned by another Aquila division in Mississippi  
6 called Crossroads. This agreement has also already expired.

7           In addition to the need to replace power it was obtaining through the Aries PPA,  
8 Aquila also needs capacity to meet growth in its customers' electrical needs.

9           Q.     What process did Aquila use to determine how to replace the Aries PPA  
10 capacity and energy?

11          A.     Aquila issued a Request for Proposals (RFP) in 2001 to get bids for  
12 capacity to replace the Aries contract. While it was analyzing the bids the market  
13 changed drastically. After discussions with the Staff, Aquila reissued the RFP in 2003.  
14 Reissuing the RFP reduced the time available to Aquila to pursue different options but,  
15 given the market changes, both Aquila and Staff felt that doing so was appropriate to get  
16 the most reliable and least cost power for Aquila's customers.

17          A.     What was the result of the analysis of this RFP?

18          Q.     The first time Staff was shown any results from this RFP was in the  
19 Aquila semi-annual resource plan meeting with Staff on June 26, 2003. Aquila told us  
20 that an "undisclosed" bidder had offered it an excellent bid for 600 MW but it could not  
21 tell us much about the bid at that time. Because this would be more than enough to cover  
22 its needs, Aquila felt that no other capacity was needed. Staff later learned from Aquila  
23 that this bid fell through.

Director Testimony of  
Lena M. Mantle

1           On January 27, 2004, Aquila again met with Staff, this time ~~not~~ in a resource  
2 planning meeting, but in a meeting to let Staff know about its power supply acquisition  
3 process for the next five years. In this meeting, Aquila's preferred/proposed resource  
4 plan over the short term was to build three combustion turbines and to enter into three-to-  
5 five year PPAs based off of the bids to the 2003 RFP.

6           Q.     How did Staff respond to this?

7           A.     Three days later on January 30, 2004, Staff responded with a letter to Mr.  
8 Dennis Williams of Aquila, expressing concern regarding Aquila's short-sightedness  
9 (three-to-five year plan), the Staff's belief that Aquila needed to be looking at base-load  
10 generation and the Staff's concern that Aquila should not become overly dependent upon  
11 PPAs.

12          Q.     When did Aquila disclose its long range plan to Staff after it received the  
13 Staff's letter?

14          A.     Aquila met with Staff on February 9, 2004, for its semi-annual resource  
15 update. This update, which took into consideration events over a twenty year time  
16 horizon, showed that \*\* \_\_\_\_\_

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21 \_\_\_\_\_  
22 \_\_\_\_\_ \*\*



Director Testimony of  
Lena M. Mantle

1           At the next semi-annual update on July 9, 2004, Aquila still showed that the

2           \*\* \_\_\_\_\_

3           \*\* Aquila had found a very good 75 MW PPA with Nebraska Public Power  
4           District (NPPD), but it was still pursuing the other PPAs upon which it had received bids.

5           At subsequent resource planning update meetings Aquila has provided updates on  
6           the \*\* \_\_\_\_\_

7           \_\_\_\_\_ \*\*

8           Q.     Does the Staff believe that Aquila should have chosen five CTs as its  
9           preferred plan because it is the least cost alternative?

10          A.     No, it does not. While cost should be a primary decision criterion, it  
11          should not be the only criteria that a utility should look at when choosing its preferred  
12          plan. While the electric utilities currently have a waiver from the Commission's resource  
13          planning rules in Chapter 22, the Staff still believes that the utilities should carefully do  
14          risk and contingency analysis of their resource plans and choose a resource plan that is  
15          robust across many scenarios involving possible future events. The Staff believes that  
16          prudently building and owning generation, whether it is baseload, intermediate or  
17          peaking, provides stability for Missouri consumers. PPAs are useful tools, but in the  
18          current environment they should not be relied upon as long-term solutions to capacity  
19          needs in the planning process without a firm long-term contract in hand. \*\* \_\_\_\_\_

20          \_\_\_\_\_

21          \_\_\_\_\_

22          \_\_\_\_\_

23          \_\_\_\_\_

Director Testimony of  
Lena M. Mantle

1       \*\* Instead of relying on short-term PPAs, Aquila could have had five CTs  
2 built by 2005 and available to serve its customers for the next thirty years.

3       Q.   In light of current natural gas prices, are you concerned about  
4 recommending Aquila install more gas-fired generation capacity?

5       A.   A prudence review entails looking at the factors relevant to a decision as  
6 they were at the time the decision was made. Therefore, I must go back to the time when  
7 Aquila made the recommendation and consider the gas prices and gas price projections  
8 that existed at that point in time, not the current time and current gas prices. Given the  
9 gas prices in 2003 and the information that Aquila has supplied the Staff, the appropriate  
10 decision would have been to build five CTs or the equivalent of 500 MW of capacity. To  
11 answer this question with today's gas prices and purchase power market, a new MIDAS  
12 model analysis would have to be run. Staff does not have the capability to run a MIDAS  
13 analysis independent of the utility.

14       Q.   Does this conclude your direct testimony?

15       A.   Yes, it does.

**PREVIOUS TESTIMONY OF  
LENA M. MANTLE**

<b>CASE NUMBER</b>	<b>TYPE OF TESTIMONY</b>	<b>ISSUES</b>
ER-84-105	Direct	Demand-Side Update
ER-85-20	Direct	Demand-Side Update
ER-85-128, et. al	Direct	PURPA Standards
EC-87-114, et. al.	Surrebuttal	Annualization & Normalization of Sales
EO-90-101	Direct, Rebuttal, and Surrebuttal	Weather Normalization of Sales Normalization of Net System
ER-90-138	Direct	Normalization of Net System
EO-90-251	Rebuttal	Promotional Practice Variance
EO-91-74, et. al.	Direct	Weather Normalization of Class Sales Normalization of Net System
ER-93-37	Direct	Weather Normalization of Class Loads Normalization of Net System
ER-94-163	Direct	Normalization of Net System
ER-94-174	Direct	Weather Normalization of Class Sales Normalization Net System
EO-94-199	Direct	Weather Normalization of Sales
ET-95-209	Rebuttal and Surrebuttal	New Construction Pilot
ER-95-279	Direct	Normalization of Net System
ER-97-81	Direct	Weather Normalization of Class Hourly Loads, TES Tariff, Normalization of Net System

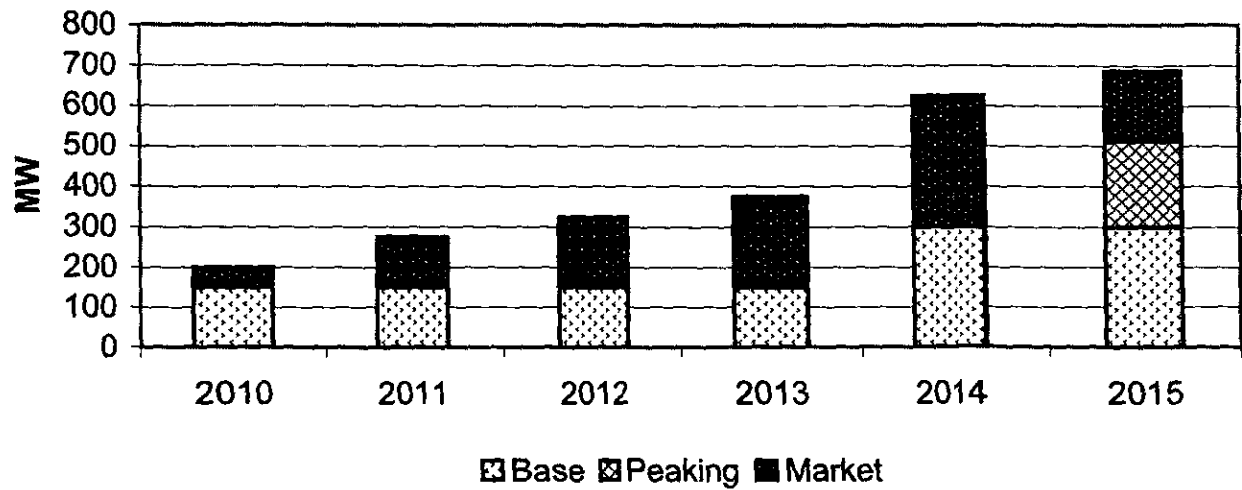
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**PREVIOUS TESTIMONY  
OF LENA M. MANTLE (cont.)**

<b>CASE NUMBER</b>	<b>TYPE OF TESTIMONY</b>	<b>ISSUES</b>
EO-97-144	Direct	Weather Normalization of Class Loads Normalization of Net System
ER-97-394, et. al.	Direct, Rebuttal and Surrebuttal	Weather Normalization of Class Loads Normalization of Net System Energy Audit Tariff
EM-97-575	Direct	Normalization of Net System
EM-2000-292	Direct	Normalization of Net System Load Research
ER-2001-299	Direct	Weather Normalization of Class Loads Normalization of Net System
EM-2000-369	Direct	Load Research
ER-2002-1	Direct	Weather Normalization of Class Loads Normalization of Net System
ER-2001-672	Direct and Rebuttal	Weather Normalization of Class Loads Normalization of Net System
EC-2002-1	Direct Rebuttal	Weather Normalization of Class Loads Normalization of Net System
ER-2002-424	Direct	Calculation of Normal Weather
EF-2003-0465	Rebuttal	Resource Plans

**NP**

### Aquila's 2005 Plan



### R.W. Beck "Optimal" Plan

