

Exhibit No.:
Issues: Coal Prices, Fuel Oil Prices,
SO2 Emissions
Witness: Graham A. Vesely
Sponsoring Party: MoPSC Staff
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Case No.: ER-2005-0436
Date Testimony Prepared: December 13, 2005

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

SURREBUTTAL TESTIMONY

OF

GRAHAM A. VESELY

**AQUILA, INC. d/b/a AQUILA NETWORKS-MPS - Electric
and AQUILA NETWORKS-L&P – Electric**

CASE NO. ER-2005-0436

*Jefferson City, Missouri
December 2005*

BEFORE THE PUBLIC SERVICE COMMISSION

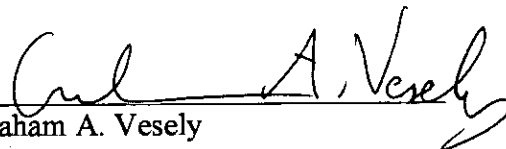
OF THE STATE OF MISSOURI

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 GRAHAM A. VESELY

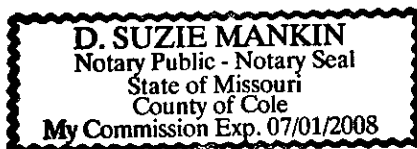
STATE OF MISSOURI)
)
COUNTY OF COLE) ss.

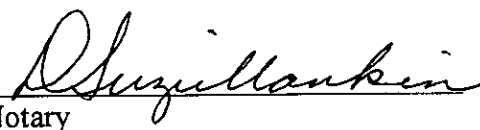
Graham A. Vesely, being of lawful age, on his oath states: that he has participated in the preparation of the following Surrebuttal Testimony in question and answer form, consisting of 14 pages to be presented in the above case; that the answers in the following Surrebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.



Graham A. Vesely

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





Notary

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GRAHAM A. VESELY
AQUILA, INC. d/b/a AQUILA NETWORKS-MPS - Electric
and AQUILA NETWORKS-L&P - Electric
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CASE NO. ER-2005-0436

1 testimony explains that although I performed a revised method of estimating sulfur emissions
2 costs at Sibley, since Staff already had an agreement with Aquila, and because the results of
3 the revised method depend on the assumptions made, Staff does not recommend changing its
4 position as Office of Public Counsel requests.

5 **COAL PRICES**

6 Q. MR BOEHM STATES AT PAGE 3 THAT YOU ARE PROPOSING TO SET
7 AQUILA'S RATES USING COAL PRICES FROM A SUPPLIER THAT IS CURRENTLY
8 NO LONGER PROVIDING COAL. PLEASE COMMENT.

9 A. This description is incomplete because it leaves out the fact that Staff is
10 including the higher costs of replacement coal in the top of the IEC it is recommending. The
11 difference between being included in the floor and being included in the ceiling of the IEC is
12 that all funds collected above the IEC floor up to the IEC ceiling will be put through a
13 prudence audit/review before they could be permanently retained by Aquila. Though these
14 funds will be collected from customers beginning immediately upon new rates taking effect, it
15 is possible in theory that some, or all, of them could be ordered refunded following a
16 determination by the Commission that they were above Aquila's necessary and prudent fuel
17 and purchased power costs. If an IEC is ordered by the Commission in this case that has the
18 top, or ceiling, calculated as Staff recommends, Aquila's rates would be set so as to collect
19 from customers the higher costs of the coal contract it entered into to replace the CW Mining
20 contract. The only difference in approach is that Aquila is proposing to include the higher
21 replacement coal contract costs in its permanent rates while Staff is proposing that the higher
22 replacement costs should be subject to refund.

1 Q. ALSO ON PAGE 3 MR. BOEHM FURTHER STATES THAT THE PRICES
2 UNDER THE CW MINING CONTRACT DO NOT REFLECT ACTUAL COSTS THAT
3 AQUILA WILL INCUR IN THE PERIOD FOR WHICH RATES WILL BE IN EFFECT.
4 HOW DO YOU RESPOND?

5 A. Until the lawsuit Aquila has filed against CW Mining in this matter is resolved,
6 it is premature to conclude what Aquila's cost for bituminous (high Btu) coal will be. Under
7 a best-case scenario, the outcome of litigation returns Aquila to the same position it would
8 have been in if CW Mining had delivered according to contract. This possibility is reflected
9 in the Staff's recommended calculation of the floor of the IEC. If, in the worst possible of
10 events, Aquila is not found by the court to be entitled to any remedy, the top of the IEC will
11 have already included a provision for it to collect from customers the costs of the more
12 expensive replacement coal. Aquila would then be able to retain any funds collected above
13 the IEC floor, subject to a prudence review. This attempts to be an even-handed approach by
14 the Staff that does not prejudge the outcome of the litigation process while providing for a
15 ready mechanism to adjust coal costs downward should the worst-case scenario not occur, or
16 should some costs be found to have not been prudently incurred. To suggest, as Mr. Boehm
17 does, that the higher cost of the replacement coal contract should be included at once in
18 permanent rates (floor of the IEC) is to discount the outcome of litigation. I wish to
19 emphasize the Staff's position that it is only prudent for Aquila to pursue this legal action as if
20 it has a genuine financial stake in its outcome.

21 Q. REGARDING THE LITIGATION PROCESS, MR. BOEHM STATES AT
22 PAGE 4 THAT WE HAVE TO ACKNOWLEDGE THAT IT HAS NO GUARANTEED OR

1 MEASURABLE OUTCOME THAT CAN BE INCLUDED IN PROPOSED RATES. DO
2 YOU AGREE?

3 A. Not entirely. It seems reasonable to believe that the outcome of the legal
4 process will result either in one of the best-case/worst-case scenarios I have described above,
5 or somewhere in between. Any other outcome is more difficult to imagine. Calculating the
6 floor and ceiling of the IEC as recommended by the Staff provides the ability to define
7 currently the probable scope of the issue and, assuming litigation resolution by IEC true-up
8 date, the flexibility in being able to adjust to the actual cost of coal the customer funds that
9 Aquila in the end is allowed to retain.

10 Q. AQUILA WITNESS ANDREW KORTE STATES AT PAGE 8 OF HIS
11 REBUTTAL THAT STAFF'S POSITION ON THE TREATMENT OF THE CW MINING
12 ISSUE AMOUNTS TO AN ADJUSTMENT THAT PENALIZES AQUILA BY
13 UNDERSTATING THE KNOWN COST OF COAL BY APPROXIMATELY \$8 MILLION.
14 WHAT IS THE STAFF'S RESPONSE?

15 A. The Staff has not proposed any adjustment to Aquila's coal costs. The Staff is
16 recommending that Aquila be able to charge its customers rates that include fuel and
17 purchased power costs computed using the actual coal costs from the contract that replaced
18 the CW Mining contract. The Staff recommends Aquila be able to permanently retain these
19 funds subject to having to undergo a prudence test at IEC true-up time. This is a normal
20 requirement attached to an IEC agreement in any case. Since Aquila is litigating the wrongful
21 termination of the coal contract by CW Mining, the actual effective cost of the high-Btu coal
22 used for blending at both Sibley and Lake Road is not known at this time. According to

1 Staff's understanding, Aquila's position respecting the litigation with CW Mining is that the
2 coal supply contract was breached and that Aquila demands full performance by CW Mining.

3 Q. AQUILA WITNESS KORTE CONCLUDES HIS REBUTTAL REMARKS
4 ON THE CW MINING ISSUE AT PAGE 8 BY STATING THAT AQUILA ACTED
5 PRUDENTLY TO REPLACE THE DEFAULTED CW MINING CONTRACT AND THAT
6 FOR STAFF TO DENY THESE PRUDENTLY INCURRED, KNOWN AND
7 MEASURABLE REPLACEMENT COAL COSTS, IS INAPPROPRIATE. HOW DO YOU
8 RESPOND?

9 A. The Staff's position is not to deny that it was prudent for Aquila to enter into
10 the replacement coal contract, but that it is too soon to know whether it is prudent to charge
11 customers permanently for the entire cost of the replacement coal. Staff could eventually take
12 the position after the IEC true-up process was performed that Aquila did make some decisions
13 that were not prudent. In the meanwhile, Staff believes that it is necessary and prudent for
14 Aquila to pursue its legal case against CW Mining, that the likely scope of any eventual
15 reductions in Aquila's coal costs can be reasonably determined, and that the actual results of
16 litigation can be addressed in the IEC true-up. It is also worth repeating that the fact that
17 Aquila currently has to pay the higher replacement coal costs is the result of an abnormal
18 event. Normally Aquila, having had the opportunity to negotiate a coal contract in the second
19 half of 2003, would still be receiving coal at the prices that were available at the time. Those
20 prices were somewhere around \$20 per ton. As a reminder, the CW Mining contract entered
21 into in 2003 called for Aquila to receive coal in 2005 at \$19.99/ton, with the contract price
22 increasing only gradually each year to about \$23/ton in 2008. The loss of this contract could
23 end up meaning that millions of dollars in higher coal costs each year over this period will be

1 passed on permanently to Aquila's residential, commercial, and industrial customers if no
2 recovery is obtained from CW Mining through the litigation process. Since 2003, the price
3 Aquila has been paying for replacement high-Btu coal has nearly doubled to between \$38and
4 \$42 a ton. Aquila's customers will be economically worse off if higher coal costs are passed
5 on to them with no mechanism to return any monies received from damages from any
6 litigation involving the breached CW Mining coal contract.

7 Q. IS STAFF RECOMMENDING THAT AQUILA BEAR THE ENTIRE
8 BURDEN OF THESE EXTRA COAL COSTS UNTIL, AND UNLESS, RECOVERY IS
9 MADE FROM CW MINING THROUGH THE LITIGATION PROCESS?

10 A. No, that is not the position the Staff has taken. Somewhat surprisingly,
11 however, Aquila acknowledged in its response to Staff's Data Request 386 that it did not in
12 any way look into the state of labor relations within CW Mining as part of its due diligence
13 process before deciding to enter into the contract. Whether such a review would have led to a
14 different outcome cannot be said, however it would seem Aquila should strongly want to add
15 this step to its decision-making process in the future when considering candidates for long-
16 term coal supply. For more on this point see the direct, rebuttal, and surrebuttal testimonies of
17 Staff witness Cary G. Featherstone.

18 Q. WHAT IS THE FINANCIAL IMPACT ON AQUILA OF INCLUDING THE
19 HIGHER COST REPLACEMENT COAL IN THE CEILING RATHER THAN THE
20 FLOOR OF THE IEC?

21 A. In both instances Aquila would have rates set to collect the same amount of
22 revenues from customers, but the interim portion collected would be calculated to permit at a
23 later date a review of whether charging customers the higher cost of the replacement coal was

1 entirely prudent or not. This actual determination can be better made at a later time rather
2 than in the present case because the lawsuit filed by Aquila against CW Mining will have had
3 more time to work its way to a resolution. If there is a reason to reduce the computed cost to
4 Aquila of the replacement coal, such as for a court-ordered payment received from CW
5 Mining, an out of court settlement, or other, the IEC true-up process would be in place for
6 adjusting the calculation of the refund due customers, if any. If no such reasons were found,
7 then simply no adjustment of the already-collected customer payments would be assessed on
8 account of the replacement coal cost issue.

9 Q. DO YOU WISH TO ADD ANYTHING ELSE TO YOUR TESTIMONY IN
10 THE AREA OF DELIVERED COAL PRICES?

11 A. Yes, I have discovered errors a) in the low-Btu coal mix percentages I used for
12 Sibley and Lake Road, b) in the Btu per pound content and freight cost of the high-Btu coal I
13 used for Sibley and Lake Road, and c) in the percentage of high-Btu coal used in the mix at
14 Lake Road. Aquila has available for use at Sibley and Lake Road low-Btu coal from two
15 differently priced sources, so at both plants I revised the percentage in the mix of each of the
16 two low-Btu coals so as not to exceed the total quantities Aquila is entitled to receive under
17 each contract. Lastly, the corrected percent of high-Btu coal I used (25% by weight) at Lake
18 Road corresponds to what Aquila uses for consistently acceptable results at that location,
19 versus the 20% Aquila finds satisfactory at Sibley. I have forwarded these revisions to Staff
20 witness David Elliott for his input to the fuel model. Aquila has informed that a cost increase
21 in one of the freight contracts, estimated at possibly around \$3 Million per year, took place
22 after the June 30, 2005 update for this case. During the true-up phase of this rate case, Staff
23 will consider this and other items that occurred by October 31, 2005,

FUEL OIL PRICES

Q. IN HIS REBUTTAL TESTIMONY AT PAGE 13, AQUILA WITNESS ANDREW KORTE STATES THAT THE FUEL OIL PRICE YOU ARE SPONSORING FOR THE STAFF'S CASE IS TOO LOW, IS OUTDATED, AND COULD IMPACT THE RESULTS OF THE FUEL MODEL. DO YOU AGREE WITH AQUILA'S ASSESSMENT OF HOW STAFF DETERMINED THE PROPER AMOUNT OF FUEL OIL EXPENSE TO BE INCLUDED IN THIS CASE?

A. No. I arrived at the fuel oil price I am sponsoring based on the most recent price actually paid by Aquila for an actual shipment it received. In November 2004, Aquila received a fuel oil shipment at its Greenwood plant that exceeded 500,000 gallons, at a price of \$1.622/gal, and made no other fuel oil purchases through the June 30, 2005 update period covered in my direct testimony filing. This price paid for the most recent purchase was much higher than the price Aquila had paid, on average, for the fuel oil in the inventory at that time at Greenwood, and elsewhere throughout its system, for that matter. However, even after adding the most recent purchase at the higher price, the average price paid for the fuel oil in storage at Greenwood is still near one dollar per gallon. The fuel oil Aquila uses for generation comes from its inventory; the cost to Aquila of the fuel oil used at any one of its power plants is the average cost of the fuel held in inventory at that plant, and not the market price at the time the oil fuel is used. Thus, it can be seen that the relevant price of fuel oil in determining Aquila's annualized fuel and purchased power expense is the price Aquila actually paid, as reflected in the average cost of oil held in inventory, and not the market price at any particular date, whether it be the November 4, 2005 date cited by Mr. Korte in his rebuttal testimony, or any other date. Further, by this it can be seen that the Staff's price of

1 \$1.622 per gallon I am sponsoring is, if anything, too high and not too low as suggested by
2 Mr. Korte. The Staff's approach of using the latest purchase price actually paid by Aquila
3 works better in more normal times when the prices are less volatile and the latest price paid is
4 not so different from the average price paid for the fuel oil already in the inventory. None of
5 these factors, though, give weight to Mr. Korte's looking to purely market prices rather than
6 the actual price paid by Aquila for fuel that will be available for use for the foreseeable future.

7 Q. DOES AQUILA BURN MUCH FUEL OIL?

8 A. No. Aquila burns very little fuel oil as seen by the fact that the last purchase
9 was made in November 2004, over a year ago. Aquila has fuel oil in storage with embedded
10 costs, based on actual purchases. As indicated in my direct testimony, oil is used as a fuel
11 source at the Nevada facility, a peaking unit that is rarely used, and as back-up fuel source at
12 the Greenwood facility. Greenwood, likewise, generates very little electricity using fuel oil.

13 Q. IS THE INVENTORY OF FUEL OIL LARGE ENOUGH TO DRAW UPON
14 FOR A SIGNIFICANT AMOUNT OF TIME, OR WILL AQUILA HAVE TO MAKE
15 PURCHASES IN THE NEAR FUTURE AND POSSIBLY BE EXPOSED TO MARKET
16 PRICES THAT COULD BE MATERIALLY HIGHER THAN THE AVERAGE COST PER
17 GALLON IN INVENTORY?

18 A. When MPS and L&P are viewed as separate systems, Staff's fuel model results
19 show that the amount of fuel oil in inventory at L&P is enough for at least two years of typical
20 use. The inventory held in the MPS system would last even longer at the typical rate of fuel
21 oil consumption. In reality, the power plants of MPS and L&P can be drawn upon at cost to
22 meet customer demand in each other's territory, subject to availability. Under these joint

1 dispatch conditions, the results of Staff's fuel model indicate that no fuel oil at all needs to be
2 used to produce electrical energy.

3 Q. WHAT WOULD BE THE RESULT OF USING AQUILA'S APPROACH TO
4 DETERMINING FUEL OIL EXPENSE IN THIS CASE?

5 A. Mr. Korte, without stating so in his rebuttal testimony, seems to be suggesting
6 that a current market price for fuel oil should be used to determined rates in this case. Even
7 though the Company has not purchased any fuel oil since November 2004, Mr. Korte suggests
8 that a market price in the \$2 per gallon range be used. If Aquila, in fact, neither requires nor
9 is purchasing fuel oil at a market price of \$2 per gallon, then that price does not reflect
10 Aquila's cost of service and should not be included in this rate case.

11 Q. DOES AQUILA'S CALL TO USE MARKET PRICES EVEN MEET WELL
12 ESTABLISHED "KNOWN AND MEASURABLE" CRITERIA?

13 A. No. Mr. Korte's suggestion to use market pricing does not meet the known
14 and measurable criteria for setting rates in Missouri. Known and measurable means that an
15 event is known certain to occur and can be measured once it has occurred. Market pricing, as
16 advocated by Mr. Korte, does not meet either of these criteria. Mr. Korte seems to be
17 suggesting in his rebuttal that fuel oil prices based on current energy markets be used even
18 though the Company has not actually made any purchases at these levels. Thus, this position
19 is neither a known event that is certain to occur, nor a measurable event since it (the purchase)
20 did not occur.

21 Mr. Korte is focused on the market price Aquila would have paid if it had bought fuel
22 oil on a particular date (November 4, 2005, in his example), and not on what price the
23 Company paid for actual purchases. Mr. Korte indicates that actual purchases should be

1 ignored in favor of some arbitrary market price. The price mentioned by Mr. Korte is, in a
2 sense, fictitious because Aquila has not actually made any purchases at that price. In contrast,
3 Staff reviewed actual invoices of actual purchases made by Aquila.

4 Q. MR. KORTE PROVIDES EXAMPLES OF WHAT THE MARKET PRICE
5 WAS FOR FUEL OIL PRICES AT PAGE 13 OF HIS REBUTTAL. ARE THESE ACTUAL
6 PURCHASES MADE BY AQUILA?

7 A. No. Aquila is focused on what the market might be if it were making buying
8 decisions, giving little consideration to the reality of the market place in which the Company
9 actually did buy fuel oil. Staff believes that the Company's approach is arbitrary and has no
10 relationship to actual facts. This approach does not reflect actual purchase transactions by
11 Aquila.

12 Q. MR. KORTE STATES AT PAGE 13 OF HIS REBUTTAL THAT STAFF'S
13 RELATIVELY LOW FUEL OIL PRICE COULD HAVE AN IMPACT ON THE RESULTS
14 OF THE PRODUCTION COST MODEL. WAS THERE ANY ACTUAL IMPACT?

15 A. While Staff does not agree that it used a "relatively low" fuel oil price, the
16 amount of fuel oil burned in Staff's production cost model is so minor that the price is not
17 material to the overall fuel and purchased power expense.

18 Q. WHAT LEVEL OF FUEL OIL WAS BURNED IN STAFF'S FUEL
19 MODEL?

20 A. Whereas there was some fuel oil usage on a stand-alone basis, Staff's fuel
21 model on a joint dispatch basis has zero gallons of fuel oil consumed and zero mega-Watt-
22 hours generated with fuel oil. The Company's fuel model has 123 mega-Watt-hours from fuel
23 oil generation resulting in 23,200 gallons of fuel oil consumed (joint dispatch basis).

SO2 EMISSIONS

Q. AT PAGES 22 AND 23 OF HIS REBUTTAL TESTIMONY, OPC WITNESS
TED ROBERTSON EXPRESSES THE OPINION THAT YOUR METHOD OF
CALCULATING EMISSIONS EXPENSE RESULTS IN AN EXCESSIVE LEVEL FOR
AQUILA'S SIBLEY GENERATING STATION. HOW DO YOU RESPOND?

A. My approach reduced the proposed level of SO2 emissions at Sibley by 10% to
eliminate the increase in such emissions forecasted by the Company for the effects of
continued use of coal from Illinois. Aquila turned to this source of coal, among others, when it
was forced to find replacement supplies after CW Mining defaulted on its coal contract. This
high-Btu (bituminous) Illinois coal has much greater sulfur content than CW Mining's coal,
leading directly to much greater SO2 emissions. However, when I filed my direct testimony it
was known that Aquila, having by then found a source of 'cleaner' western coal
(Consolidation), would no longer be using Illinois coal. As a result of the assertions Mr.
Robertson makes in his rebuttal testimony I have now tried a different approach to estimating
the number of tons of sulfur dioxide (SO2) produced on an annualized, normalized basis at
Sibley from burning coal for electrical generation. I consider this different method to be the
preferred one because instead of using Aquila's forecast as the starting place and then making
modifications thereto, it relies rather on the fundamental factors that determine the amount of
SO2 emissions produced at Sibley from burning coal.

Q. PLEASE DESCRIBE THIS APPROACH.

A. The output of Staff's fuel model provides, among other things, the total fuel
energy content (in millions of Btu, or MMBtu) of the coal used at Sibley as part of the overall
plan for generating the electrical energy to meet the annualized, normalized customer load. By

1 applying the contract-specified heat energy content of each pound of coal, I then converted
2 this total fuel energy content into the tons of coal required to be burned at Sibley. Also by
3 contract, each type of coal used in the mix at Sibley is restricted to a specified SO₂
4 percentage. Applying this SO₂ percentage to the total number of tons of each coal in the mix
5 produces the estimated amount of tons of sulfur dioxide emissions.

6 Q. USING THIS APPROACH, DID YOUR RESULTS APPEAR TO BE
7 REASONABLE?

8 A. The results do look reasonable when compared, for example, to the actual level
9 of emissions at Sibley in 2003, a year in which there were no effects of the CW Mining
10 default and in which the tons of coal burned and the SO₂ content of the coals used were
11 similar to those in my analysis.

12 Q. DID THE RESULTS MATCH THOSE OF MR. ROBERTSON'S
13 ANALYSIS?

14 A. The resulting level of emissions at Sibley, though lower than what I am
15 sponsoring for Staff's position in this rate case, was still higher than that advocated by OPC
16 witness Ted Robertson.

17 Q. WHAT ASSUMPTION DID YOU MAKE IN YOUR REVISED APPROACH
18 AS TO THE HIGH-BTU COAL USED IN THE MIX AT SIBLEY ON A NORMALIZED
19 BASIS?

20 A. I used the SO₂ percentage of the coal that CW Mining was to deliver under its
21 contract with Aquila. CW Mining has defaulted on this contract and Aquila is expected to
22 instead be using high-Btu coal from Consolidation Coal under a two-year contract signed

1 recently. This replacement coal has an SO2 content that is much lower than that of the Illinois
2 coal, but still higher than the CW Mining coal had.

3 Q. ARE YOU REVISING THE SO2 EMISSIONS EXPENSE OR INVENTORY
4 YOU ARE SPONSORING IN THIS RATE CASE?

5 A. No, I am not, as Staff and Aquila have already agreed to adopt Staff's position
6 and there is currently, therefore, no issue between Staff and Company in this area.

7 Q. IF STAFF BELIEVES THAT A BETTER METHOD FOR ESTIMATING
8 SO2 EMISSIONS COSTS IS AVAILABLE, WHY IS STAFF NOT MAKING A CHANGE
9 TO ITS CASE?

10 A. Staff reached agreement with Aquila when the Company accepted our original
11 position, and we believe it is important to honor this negotiated settlement. I am only
12 addressing this matter in surrebuttal in reaction to Public Counsel's file rebuttal testimony. I
13 evaluated Mr. Robertson's concerns and in response have taken a better approach to
14 estimating SO2 emissions. As I have said, though, the results of my re-evaluation depend on
15 the assumptions one makes as to which high-Btu coal will be used at Sibley.

16 Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

17 A. Yes, it does.