Exhibit No.:
Issues: Capacity Planning, Fuel And Purchase Power
Witness: Andrew N. Korte
Sponsoring Party: Aquila Networks-MPS And L&P
Case No.: ER-2005-0436

Before the Public Service Commission
of the State of Missouri

Rebuttal Testimony

of

Andrew N. Korte

Denotes Highly Confidential Information

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REBUTTAL TESTIMONY OF ANDREW N. KORTE
AQUILA, INC. D/B/A AQUILA NETWORKS-MPS AND AQUILA NETWORKS-L&P
CASE NO. ER-2005-0436

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI
REBUTTAL TESTIMONY OF ANDREW N. KORTE
ON BEHALF OF 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 Andrew Korte. My business address is 10750 East 350 Highway, Kansas City, Missouri, 64138.

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

A. I am employed by Aquila, Inc., ("Aquila") as Vice President Energy Resources, in its regulated electric utility operations.

Q. Please describe your responsibilities in that position.

A. Within its regulated electric utility operations, Aquila has functionally separated the supply of electric energy from the transmission and distribution of energy. I am employed within the energy supply operation. My position's responsibility include power supply resource planning, dispatch of and marketing from power supply assets, managing elements of generation fuel supply, and managing the power supply resource contracts in Aquila's Colorado, Kansas and Missouri electric utility operations.

Q. What are your educational qualifications, training, and experience?

A. I hold a Bachelor of Science Degree in Electrical Engineering from the University of Nebraska-Lincoln, Masters of Business Administration and Juris Doctor from Creighton University, and I am presently a licensed Professional Engineer in the state of Nebraska. I have approximately fifteen years of experience in regulated utility operations beginning in 1987 with the Omaha Public Power District. I have held various positions in engineering, system planning, and system operations. Between 1999 and 2003 I was employed by Aquila Merchant Services, Inc. I became Vice President Energy Resources in November 2003.

Q. Have you previously filed testimony before any state or federal agencies?

A. No.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of this rebuttal is to support Aquila's position(s) in this case regarding the Aquila Networks-MPS ("MPS") and Aquila Networks-L&P ("L&P") operating divisions of Aquila. Specifically, I will respond to the testimony of Mr. Robert Schallenberg regarding additional peaking capacity; to Mr. Cary Featherstone regarding the exclusion of existing coal contract prices from inclusion in base rates; to Mr. David Elliott regarding purchased power cost determination; and to Mr. Charles Hyneman regarding the cost of natural gas and fuel oil used for electric generation.

ADDITIONAL PEAKING CAPACITY

Q. What was the purpose of Mr. Schallenberg's testimony in this case?

A. On Page 5, starting at Line 12 of his direct testimony, Mr. Schallenberg states the purpose is to "sponsor, support and explain adjustments S-23.9 to Staff's cost of service schedules". The adjustment is based on Staff's revenue requirements to satisfy Aquila's electric capacity shortfall explained as Project X in the direct testimony of Aquila witnesses Boehm and Apprill. Mr. Schallenberg's adjustment is based on adding peaking capacity at an installed cost of **_______**.

Q. Do you agree with this adjustment amount and why?

A. No. Mr. Schallenberg's adjustment is not supported by any facts or comparison data. In fact Mr. Schallenberg admits that an "estimate was used for a June 1, 2005 in-service date" at an existing site and he goes on to say the number "is a matter of judgment". Additionally, the ** _______ ** estimate is well below cost to install a combustion turbine facility.

Q. Does Aquila suggest an alternate capacity cost to Mr. Schallenberg's adjustment?

A. Aquila does not believe an adjustment is appropriate. However, if an adjustment were deemed appropriate then as Mr. Schallenberg states on page 7 line 16 of his direct testimony, "using the best information available" would be an appropriate means of determining an alternative capacity cost. The best information available for accessing capacity cost is the known and measurable installed cost of the 315 MW South Harper project included in this case which is ** ____________________ **. As with South Harper, incremental capacity would necessitate an increased transmission investment to interconnect such capacity to the transmission system, ** ____________________ **. Aquila believes the foregoing known and measurable cost estimates demonstrate the error of Staff's adjustment. Therefore, if a cost adjustment is deemed appropriate Aquila believes the above sufficiently demonstrate why such a Schedule S-23.9 adjustment would be, at a minimum, ** _____ **.

Q. Starting on Page 6, Line 8, Mr. Schallenberg provides three reasons why the Staff uses ownership cost to support adjustment S-23.9 when Aquila is proposing cost based on a purchase power agreement. Do you agree with his supporting comments?

A. No. In particular, Aquila disagrees with his first assertion that prudent ownership will produce the lowest overall cost. In this particular case, present market conditions do not support this claim. Significantly, Mr. Schallenberg states on Page 7, starting at Line 3 that it is prudent for a utility to purchase capacity when it results in a lower overall revenue requirement. He also states that the revenue requirements impact should be evaluated over the life of the generating plant. Aquila does not disagree with this portion of Mr. Schallenberg's testimony. In fact, Aquila believes it is accomplishing this "lower overall revenue requirement" through its recent purchased of ** ____ ** Aside from being a low cost power supply alternative, Aquila believes the purchase of capacity, at least in the short-term, is a very reasonable response to the present uncertain environment for building generation in Missouri.

Q. Please explain your last comment.

A. Based on Aquila's experiences at South Harper there are unresolved legal issues confronting any utility wishing to building generation in Missouri. That issue, as I understand it, deals with which governmental entity in Missouri has authority over approval to build a power plant, the Commission through the utility certificate of convenience and necessity or through local zoning and permitting laws.

Q. Starting at Line 20 of Page 7 of Mr. Schallenberg's testimony, he mentions an Aquila affiliate that is attempting to sell existing units to other utilities but not to MPS/L&P. He further states that Staff will re-evaluate the ** _______ ** adjustment based on obtaining information on these Aquila offerings. Can you elaborate on these offerings and whether they would be appropriate to use in making further adjustments?

A. Because of our Code of Conduct and FERC rules, Aquila staff working on resource needs for the MPS/L&P system cannot receive or share information on activities from non-regulated activities. However, public information presented by Aquila senior management indicates that efforts are underway to sell peaking generating assets located in Illinois and within the MISO footprint. Assuming that these are the projects to which Mr. Schallenberg is referring, it would not be appropriate to use any offers for these projects for additional adjustments to the **_______** number.

Q. Explain why.

A. These facilities are not located within the MPS/L&P system. To include either (both) facility (facilities) as a capacity resource for MPS/L&P Aquila would need to either (i) secure firm MISO transmission from the relevant facility (facilities) to MPS/L&P or (ii) join the MISO RTO and then determine whether either facility was capable of being designated as a network resource. Aquila has to date been unable to secure new long-term firm transmission to MPS/L&P from MISO. I am not an expert on MISO, but if Aquila joins the MISO RTO, it is my understanding that the deliverability of energy would also be subject to congestion management charges and presently Aquila does not know what those charges would be. Additionally, if firm transmission were available the applicable transmission, ancillary service, and energy loss charges would be an additional charge that would need to be included. The other option of joining MISO RTO is presently not feasible because Aquila's request to do so is on hold until it completes a Commission mandated cost-benefit study. As the Staff is aware, Aquila has requested Commission approval to join MISO several years ago and the Commission did not act on the company's application.

CONTRACTED COAL PRICES

Q. What is the source of Aquila's supply of high-Btu bituminous coal?

A. The majority of Aquila's high-Btu bituminous coal is under contract from Consolidation Coal Company's (Consol Energy) Emery mine in Utah. A smaller quantity has been recently purchased from Andalex's Aberdeen mine also in Utah.

Q. What are the quantities being purchased from these suppliers and the respective commodity price?

A. There are two agreements with Consolidation Coal Company. The first is a spot contract that has approximately 62,500 tons remaining at a price of $38.00/ton. The second is a long term agreement that encompassed 100,000 tons for the end of 2005 and 300,000 tons annually for years 2006 and 2007 all at a price of $38.0643/ton. Recently, Aquila entered into a spot contract with Andalex for 24,000 tons at a price of $42.00/ton.

Q. Do these figures correspond to those used by the Staff?

A. No. Although Staff has the aforementioned numbers, Staff is recommending that the pricing from the C.W. Mining contract be used to determine recovery. The 2005 price was $19.99/ton, which is almost half the price of current high-Btu contracts.

Q. So C.W. Mining is not a current contract?

A. No. In April 2005, C.W. Mining notified Aquila that C.W. Mining was terminating the contract due to force majeure events, primarily on-going labor problems.

Q. If the C.W. Mining contract has been terminated, why is Staff recommending its use?

A. According to direct testimony provided by Mr. Featherstone, C.W. Mining's unilateral termination of the contract is being described as an unusual event. Outside the general history outlined by Mr. Featherstone, there appears to be two main issues raised leading to the recommendation. The first is pending legal action that Aquila has taken against C.W. Mining and the second is focused on the C.W. Mining labor dispute.

Q. What is Staff's concern with pending litigation?

A. With respect to pending litigation, Staff appears to be concerned with the ability of Aquila to recover damages from C.W. Mining if current prices are used.

Q. Is that a valid concern?

A. Not according to our General Counsel, nor according to our outside counsel's legal opinion.

Q. What does Aquila plan to do if its actual coal contract prices are used for setting rates in this case and subsequently Aquila receives damages from the C.W. Mining litigation?

A. Aquila would propose that an appropriate refund mechanism be developed as was done in Case No. ER-82-39, involving the Westinghouse and Peabody Coal Company lawsuits.

Q. The second issue mentioned relates to C.W. Mining's labor issues. In reviewing Mr. Featherstone's direct testimony, Aquila's due diligence of C.W. Mining's labor practices seems to be questioned. Is it a general business practice to review the labor relations and practices of its counterparties?

A. No. In fact I am not aware of any policy, requirement, or expectation that would prompt even a cursory review of labor relations/practices for a supplier. Any company registered in the United States would be expected to follow State and Federal labor laws as required and as enforced by their respective agencies.

Q. What is a reasonable standard of review when determining the suitability of a supplier?

A. There are two primary criteria when determining the suitability of a coal supplier. The first is determining the credit worthiness / financial stability of the supplier. Each potential supplier is subject to a financial credit review. This evaluation is performed by Aquila's Credit Risk Management group. The second criteria relates to the availability of the product being purchased, in this case coal. Aquila evaluates, to the best of its ability, the existence of suitable coal reserves, mining capacity to remove it from the ground, and the ability to transport/loadout the coal.

Q. What is the ultimate impact of Staff's adjustment on Aquila?

A. In setting base rates, Staff's adjustment understates the costs of coal which Aquila knows it will incur by approximately $8 million. This penalty is unjustified. At the time Aquila entered into the contract with C.W. Mining, it was the lowest cost, preferred supplier bid. Had Aquila not entered into that contract, there is a high likelihood that some parties would have challenged the prudence of that decision. To now penalize the company by reflecting a hypothetical coal cost is an obvious example of hindsight regulation. At the time Aquila made the decision to enter into the contract with C.W. Mining Company, that was the most appropriate and prudent decision based on the known facts at that time. Delivery under that contract is no longer available and Aquila has again moved prudently to enter into a new contract at the lowest available cost. Denial of the recovery of these prudently incurred, known and measurable coal costs is inappropriate.

PURCHASED POWER COSTS

Q. Please summarize, as you understand it, the method used by Mr. Elliot to arrive at his recommended market purchase power prices for this case.

A. Mr. Elliott uses the average cost of power purchased by the company and reported by the company in response to 4 CSR 240-3.190. The staff utilizes an averaging method detailed in their 1996 policy paper, documented in Mr. Elliott's working papers.

Q. Did the company review the 1996 policy paper?

A. Yes

Q. Did the company review Mr. Elliott's working papers?

A. Yes.

Q. Was the method followed accurately?

A. It is uncertain. The method described in the policy paper was developed using different programming software than either the staff or the company now uses. The policy paper method describes using Lotus 1-2-3 as the software to calculate the averages. The staff uses Microsoft Excel as its calculation software for this case. The company has been unable to determine if this change in staff methodology would produce a material change in the final results.

Q. Given that the method has not been updated to reflect current actual practice, does the company hold with the basic analytical premise of the method described in the 1996 method?

A. No. The method described in the 1996 policy paper does not take into account many of the aspects of market power prices. The major flaws with the staff method are a) no correlation with natural gas market prices and b) a bias to lower power prices than are experienced in the market.

Q. What is meant by the correlation of natural gas prices and power prices?

A. Correlation is a statistical measurement of the "connectedness" of two variables. Two variables [in this case power prices and natural gas prices] with a high correlation would tend to move together. So when natural gas prices are high, the market for power would move up as well. Similarly, if the price of natural gas drops, the price of power should also decrease.

Q. Is there a strong correlation between power and natural gas prices in their respective markets?

A. Yes. The company has documented this strong correlation and has shared this information with the staff in a past rate case. Most all market participants acknowledge the strength of the natural gas-power market price correlation and consider a strong correlation as fact.

Q. Is the correlation of market power and natural gas prices an important feature of production cost modeling?

A. Yes. If the purchase power prices and the natural gas prices do not accurately depict the actual market correlations, the model may have instances where purchase power input prices are high and natural gas input prices are low. The model could choose generating with natural gas rather than open market purchases. The reverse would also be true. If power prices were low relative to natural gas prices, the model would choose to purchase more power than use natural gas to generate electricity.

Q. Would this lack of correlation introduce a bias into the production cost model?

A. Yes. It would cause the model to estimate lower production costs as the model would have more opportunity to obtain low cost energy than would be found in the actual market.

Q. Is there a method by which power and natural gas prices can be estimated such that the market correlations hold true?

A. Yes. A method utilizing the MIDAS GOLD software package is described in the direct testimony of Mr. James Okenfuss and was used by the company in its production cost estimate. This software has been adopted by other investor-owned utilities in Missouri.

Q. Is the lack of correlation the only source of bias in the staff method?

A. No. The most glaring source of bias comes from the appearance that the method over-estimates the number of high outlier data points, discarding valid information while under-estimating low outliers.

Q. Is it statistically valid to screen outliers from a data set?

A. Yes, when it is done to improve the data by throwing out points that are incorrect due to being improperly coded into the data set or simply "bad" data. But a statistician should never screen data simply because the statistician feels its value is too high. This is my main point of contention with the statistics of the staff method; it is apparently designed to throw out valid and accurate data.

Q. Do you have any examples of how this bias imbedded in the staff method negatively impacts the value of the data going into the staff's production model?

A. Yes. Because the staff does not look at a full range of market information in developing their estimate of power market prices, but instead relies solely upon limited insight into one company's resultant cost structure, the staff has produced a power market price curve that is less than credible. For example, the peak price for power in December is 5.9% higher than the peak price in July. Most market observers would assume that for the Midwest, July power prices should be higher than December prices.

Q. Would you consider the Staff's approach a valid method of developing prices?

A. No. In light of the computational tools available, the method used by staff is antiquated and bears no semblance to the actual marketplace.

COST OF NATURAL GAS AND FUEL OIL

Q. Have you reviewed Mr. Hyneman's direct testimony?

A. Yes. I have reviewed Mr. Hyneman's direct testimony regarding the price estimate for natural gas. I have also reviewed the market prices for natural gas staff used as an input into the staff production cost model.

Q. Does Mr. Hyneman's method appear consistent with past methods of natural gas price estimating used by the staff in previous rate cases?

A. No. In Case ER-2004-0034 I believe staff used a 21-month average of natural gas expenditures by the company. In that case, Mr. Vesely stated that the averaging method proposed for that case followed a policy that was used by staff for many years. In this case, Mr. Hyneman has arbitrarily chosen the Month of June 2005 as the accurate month to determine natural gas prices.

Q. Why June 2005?

A. No reasons were given by staff as to why June 2005 was the correct month, but it may have been that this was the latest month available at the time they were performing their audit.

Q. Does June have any particular prominence in historical natural gas pricing?

A. Yes, in history it is generally the month that natural gas prices are among the lowest.

Q. Would arbitrarily selecting a historically low priced natural gas month introduce a bias into the results of the production cost model?

A. Yes, and once again this bias would have the effect of lowering estimated costs for operating the company's electric service business.

Q. Would it be appropriate to return to Staff's previous month of using a twenty-one month historical average to determine the expected cost of natural gas?

A. No. The well publicized recent rises in natural gas prices also render a historical average of prices as inadequate for use in determining an appropriate level of natural gas costs for rate setting.

Q. Is there a way to mitigate the bias introduced by the arbitrary nature of the staff's recommendation?

A. Yes. Staff could utilize a comprehensive method; similar to the one proposed by the company, that incorporates a more complete view of the actual marketplace.

Q. What is staff's method for determining market fuel oil prices?

A. Staff uses the single last transaction entered into by the company as the market price for #2 fuel oil. This transaction occurred on November 4, 2004, almost one year before the writing of this testimony.

Q. Does the company support this method of price determination?

A. No. This method is completely arbitrary, and is based on the barest minimum of market based information.

Q. Has the prevailing price for Fuel oil changed in that time span?

A. Yes, Fuel Oil [#2, 0.2% Sulphur Content, New York Barge Spot] price on November 4, 2004 was 159.55 cents per gallon. On November 4, 2005, its price was 199.55 cents per gallon. This represents a 25% increase in prices for the year.

Q. Is this just an impact of the recent hurricanes?

A. Possibly, but the price of fuel oil stood at 205.55 cents per gallon the week before Hurricane Katrina struck New Orleans.

Q. Does the relatively low price of fuel oil impact the production cost model?

A. It can, if the model assumes that it can generate with fuel oil fired units more economically than natural gas units.

Q. Does this conclude your rebuttal testimony?

A. Yes.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

County of Jackson)
) ss
State of Missouri)

AFFIDAVIT OF ANDREW N. KORTE

Andrew N. Korte, being first duly sworn, deposes and says that he is the witness who sponsors the accompanying testimony entitled "Rebuttal Testimony of Andrew N. Korte;" that said testimony was prepared by him and under his direction and supervision; that if inquiries were made as to the facts in said testimony and schedules, he would respond as therein set forth; and that the aforesaid testimony and schedules are true and correct to the best of his knowledge, information, and belief.

Andrew Korte

Andrew N. Korte

Subscribed and sworn to before me this 18th day of November, 2005.

Terry D. Lutes

Notary Public
Terry D. Lutes

My Commission expires:
8-20-2008

Notary Public
Notary Seal
State of Missouri

TERRY D. LUTES
Jackson County
My Commission Expires
August 20, 2008